

STATE OF NEW HAMPSHIRE INTER-DEPARTMENT COMMUNICATION

DATE: May 1, 2024

FROM: Joshua Brown
Wetlands Program Specialist

AT (OFFICE): Department of
Transportation

SUBJECT Shoreland Application
Nottingham, 40612

**Bureau of
Environment**

TO Calvin Diessner, Shoreland Section Supervisor
New Hampshire Department of Environmental Services
Land Resources Management Water Division,
29 Hazen Drive, P.O. Box 95
Concord, NH 03302-0095

Forwarded herewith is the application package prepared by NHDOT Bureau of Bridge Design for the subject project. The project involves the replacement of the existing NH Route 152 bridge over the North River (Bridge No. 141/127) in the Town of Nottingham, NH. Proposed work includes the replacement of the existing bridge with a 30-foot span bridge. The bridge will be widened two feet and the project includes 300 feet of roadway widening on each end of the bridge to transition the additional width on each side of the roadway at each bridge approach back to the existing roadway.

This shoreland application has been submitted in conjunction with a standard dredge and fill wetlands application that was submitted to NHDES on April 8th, 2024 (NHDES: 2024-00912).

The lead people to contact for this project are Jason Tremblay, Bureau of Bridge Design (271-1614 or jason.a.tremblay@dot.nh.gov) or Andrew O'Sullivan, Wetlands Program Manager, Bureau of Environment (271-3226 or Andrew.O'Sullivan@dot.nh.gov).

A payment voucher has been processed for this application (Voucher #) in the amount of \$3,750.

If and when this application meets with the approval of the Bureau, please send the permit directly to Andrew O'Sullivan, Wetlands Program Manager, Bureau of Environment.

JRB;
cc:
BOE Original
Town of Nottingham (4 copies via certified mail)
Lamprey River LAC (1 copy via certified mail)

Karl Benedict, NHDES (via electronic notification)
Kevin Nyhan, BOE (via electronic notification)

**NH Route 152 over the North River
Bridge Replacement
Nottingham 40612**

NHDES SHORELAND PERMIT APPLICATION

Submitted for:



NH Department of Transportation
7 Hazen Drive
Concord, NH 03302

Prepared by:



GM2 Associates, Inc.
197 Loudon Road, Suite 310
Concord, NH 03301

April 2024

NH Route 152 over the North River
Bridge Replacement
Nottingham 40612

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SHORELAND PERMIT APPLICATION

Water Division / Wetlands Bureau
[Check Application Status](#)



RSA / Rule: RSA 483-B, Env-Wq 1400

Administrative Use Only	Administrative Use Only	Administrative Use Only	File No.:
			Check No.:
			Amount:
			Initials:

This is an application for a permit to excavate, fill, construct new structures, or remove structures within the protected shoreland regulated under RSA 483-B. By providing your email address, you authorize NHDES to communicate all matters relative to this filing electronically, using your email address.

SECTION 1 - PROJECT DESCRIPTION (Env-Wq 1406.07)			
Please concisely describe your proposed project:			
SECTION 2 - PROJECT LOCATION (Env-Wq 1406.07)			
ADDRESS:	TOWN/CITY:	STATE:NH	ZIP CODE:
WATERBODY NAME:	TAX MAP/ BLOCK/LOT NUMBER:		
SECTION 3 - PROPERTY OWNER AND DEED INFORMATION (Env-Wq 1406.07)			
The legal name of each property owner must be as it appears on the deed of record. If the owner is a trust or a company, write the name of the trust or company as the owner's name.			
LAST NAME, FIRST NAME, M.I.:			
MAILING ADDRESS:	TOWN/CITY:	STATE:	ZIP CODE:
PHONE:	EMAIL (if available):		
REGISTRY OF DEED COUNTY	BOOK NUMBER	PAGE NUMBER	
SECTION 4 - APPLICANT (DESIRED PERMIT HOLDER), IF DIFFERENT THAN OWNER (Env-Wq 1406.07)			
If the applicant is a trust or a company, write the name of the trust or company as the applicant's name. If the applicant is the owner, please leave blank and check the following box: <input type="checkbox"/>			
LAST NAME, FIRST NAME, M.I.:			
MAILING ADDRESS:	TOWN/CITY:	STATE:	ZIP CODE:
PHONE:	EMAIL (if available):		
SECTION 5 - CONTRACTOR OR AGENT (OPTIONAL)			
LAST NAME, FIRST NAME, M.I.:			
ADDRESS:	TOWN/CITY:	STATE:	ZIP CODE:
PHONE:	EMAIL (if available):		

29 Hazen Drive, PO Box 95, Concord, NH 03302-0095
shoreland@des.nh.gov or (603) 271-2147
des.nh.gov

SECTION 6 - CRITERIA (Env-Wq 1406.07)

Please check at least one of the following:

- This shoreland permit application requires neither a proposal to make the property more nearly conforming nor a request for a waiver of a minimum standard.
- This shoreland permit application includes a proposal to make the structures and/or the property [more nearly conforming](#) in accordance with RSA 483-B:11.
- This shoreland permit application includes a [request for a waiver](#) of the following minimum standard(s): RSA 483-B:9, V.

SECTION 7 - RELATED PERMIT APPLICATIONS ASSOCIATED WITH THIS PROJECT (Env-Wq 1406.14)

Please indicate if you also require the following permits. If so, please indicate the status of your permit application.

Permit Type	Permit Required	File Number	Permit Application Status
Alteration of Terrain per RSA 485-A:17	YES NO		<input type="checkbox"/> APPROVED <input type="checkbox"/> PENDING <input type="checkbox"/> DENIED
Individual Sewerage Disposal per RSA 485-A:29	YES NO		<input type="checkbox"/> APPROVED <input type="checkbox"/> PENDING <input type="checkbox"/> DENIED
Subdivision Approval per RSA 485-A:29	YES NO		<input type="checkbox"/> APPROVED <input type="checkbox"/> PENDING <input type="checkbox"/> DENIED
Wetlands Permit per RSA 482-A	YES NO		<input type="checkbox"/> APPROVED <input type="checkbox"/> PENDING <input type="checkbox"/> DENIED

SECTION 8 - REFERENCE LINE ELEVATION (Env-Wq 1406.07)

Required for projects located on the protected shoreland of lakes or ponds. The reference line elevations for most lakes, ponds, and artificial impoundments greater than 10 acres are listed in the Consolidated List of Waterbodies Subject to the Shoreland Water Quality Protection Act. See RSA 483-B:4, XVII for the definition of reference line.

REFERENCE LINE ELEVATION (feet above sea level):

SECTION 9 - APPLICATION FEE & SUBMITTAL (RSA 483-B:5-b, I(b); RSA 483-B:5-b, X)

A nonrefundable permit application fee of \$200 plus \$0.20 per total square feet of impact for restoration of water quality improvement projects, or \$400 plus \$0.20 per total square feet of impact for all other projects is required at the time the application is submitted. *Applications for projects solely funded by municipal, county, state, or federal entities shall incur a permitting fee no greater than \$3,750.*

To mail or hand deliver this application and all required attachments to the NHDES Wetlands Bureau, please use PO Box 95, Concord, NH 03302-0095. Missing information may delay your shoreland permit application and may result in denial. *If paying by check or money order, please make payable to the Treasurer, State of New Hampshire.*

SECTION 10 - CALCULATING TOTAL IMPACT AREA / PERMIT APPLICATION FEE (RSA 483-B:5-b, I(b); RSA 483-B:5-b, X)		
Calculate total impact area by determining the sum of all areas disturbed by regrading, excavating, filling, construction or structure removal. Impacts often include, but are not limited to constructing new driveways, constructing new structures, areas disturbed when installing septic systems and foundations, creating temporary access roads to drill a new well and regrading associated with landscaping activities.		
TOTAL AREA IMPACTED WITHIN THE PROTECTED SHORELAND =		(A) square feet
<ul style="list-style-type: none"> • <i>For restoration of water quality improvement projects:</i> Multiply line (A) by \$0.20 and add \$200. [(A) × \$0.20 + \$200] = \$ Permit fee¹ • <i>For all other projects:</i> Multiply line (A) by \$0.20 and add \$400. [(A) × \$0.20 + \$400] = \$ Permit fee 		
SECTION 11 - REQUIRED CERTIFICATIONS (Env-Wq 1406.08; Env-Wq 1406.10(a))		
By initialing each of the following statements, and signing below, you are certifying that:		
Initials:	The information provided is true, complete, and not misleading to my knowledge and belief.	
Initials:	I understand that: <ul style="list-style-type: none"> • Any permit or waiver granted based on false, incomplete, or misleading information shall be subject to revocation. • I am subject to the applicable penalties in RSA 641, Falsification in Official Matters. • Obtaining a shoreland permit shall not exempt the work proposed from other state, local, or federal approvals. 	
Initials:	I have notified the governing body of the municipality or municipalities in which the property is located by certified mail, in accordance with Env-Wq 1406.13.	
Initials:	I have notified all abutters ² of the proposed impacts via certified mail, in accordance with Env-Wq 1406.13.	
Initials:	<input type="checkbox"/> This project is within one-quarter mile of a designated river, and I have provided the Local River Management Advisory Committee (LAC) with a copy of my complete application, including all supporting materials, via certified mail, in accordance with Env-Wq 1406.13. <input type="checkbox"/> This project is <i>not</i> within one-quarter mile of a designated river.	
Initials:	For any project proposing that the impervious area be at least 15% but not more than 20% within the protected shoreland, I certify that the impervious area is not more than 20%. <input type="checkbox"/> N/A	
SECTION 12 - REQUIRED SIGNATURES (Env-Wq 1406.08)		
Both the property owner and applicant must sign.		
SIGNATURE (OWNER): <i>Jason A. Tronblay</i>	PRINT NAME LEGIBLY:	DATE:
SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER):	PRINT NAME LEGIBLY:	DATE:

¹ Projects solely funded by municipal, county, state, or federal entities shall incur a permit application fee no greater than \$3,750.

² "Abutter" means any person who owns property immediately contiguous to the property on which the proposed work will take place, or who owns flowage rights on such property. The term does not include properties separated by a public road or located more than ¼ mile from the limits of the proposed work. If contiguous properties are owned by the person who is proposing the work, then the term includes the person owning the next contiguous property, subject to the ¼ mile limitation.

SHORELAND PERMIT APPLICATION WORKSHEET

You must include this worksheet with every shoreland permit application. Include a separate worksheet for each individual lot of record where impacts are proposed.

In this worksheet, “pre-construction” impervious surface area³ means all human-made impervious surfaces⁴ currently present within the protected shoreland of a lot, whether to be removed or to remain after the project is completed. “Post-construction” impervious area means all impervious surfaces that will exist within the protected shoreland of a lot upon completion of the project, including both new and any remaining pre-construction impervious surfaces. All answers must be in square feet.

Calculating Impervious Area

CALCULATING THE IMPERVIOUS AREA OF A LOT WITHIN 250 FEET OF THE REFERENCE LINE (Env-Wq 1406.12)			
	STRUCTURE DESCRIPTION	PRE-CONSTRUCTION IMPERVIOUS AREAS	POST-CONSTRUCTION IMPERVIOUS AREAS
PRIMARY STRUCTURE(S) House and all attached decks and porches.		FT ²	FT ²
ACCESSORY STRUCTURES All other impervious surfaces excluding lawn furniture, well heads, and fences. Common accessory structures may include driveways, walkways, patios and sheds.		FT ²	FT ²
		FT ²	FT ²
		FT ²	FT ²
		FT ²	FT ²
		FT ²	FT ²
TOTAL:		(A) FT² 12,837	(B) FT²
Area of the lot located within 250 feet of reference line:			(C) FT²
Percentage of lot covered by pre-construction impervious area within 250 feet of the reference line: <i>[divide (A) by (C) x 100]</i>			(D) %
Percentage of lot to be covered by post-construction impervious area within 250 feet of the reference line upon completion of the project: <i>[divide (B) by (C) x 100]</i>			(E) %

³ “**Impervious surface area**” as defined in Env-Wq 1402.13 means, for purposes of the impervious surface limitation specified in RSA 483-B:9, V(g), the total footprint of each impervious surface that is located within the protected shoreland.

⁴ “**Impervious surface**” as defined in RSA 483-B:4, VII-b means any modified surface that cannot effectively absorb or infiltrate water. Examples may include roofs, and unless designed to effectively absorb or infiltrate water, decks, patios, and paved, gravel, or crushed stone driveways, parking areas, and walkways.

Stormwater Management Requirements

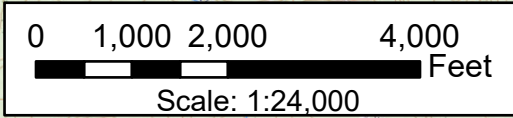
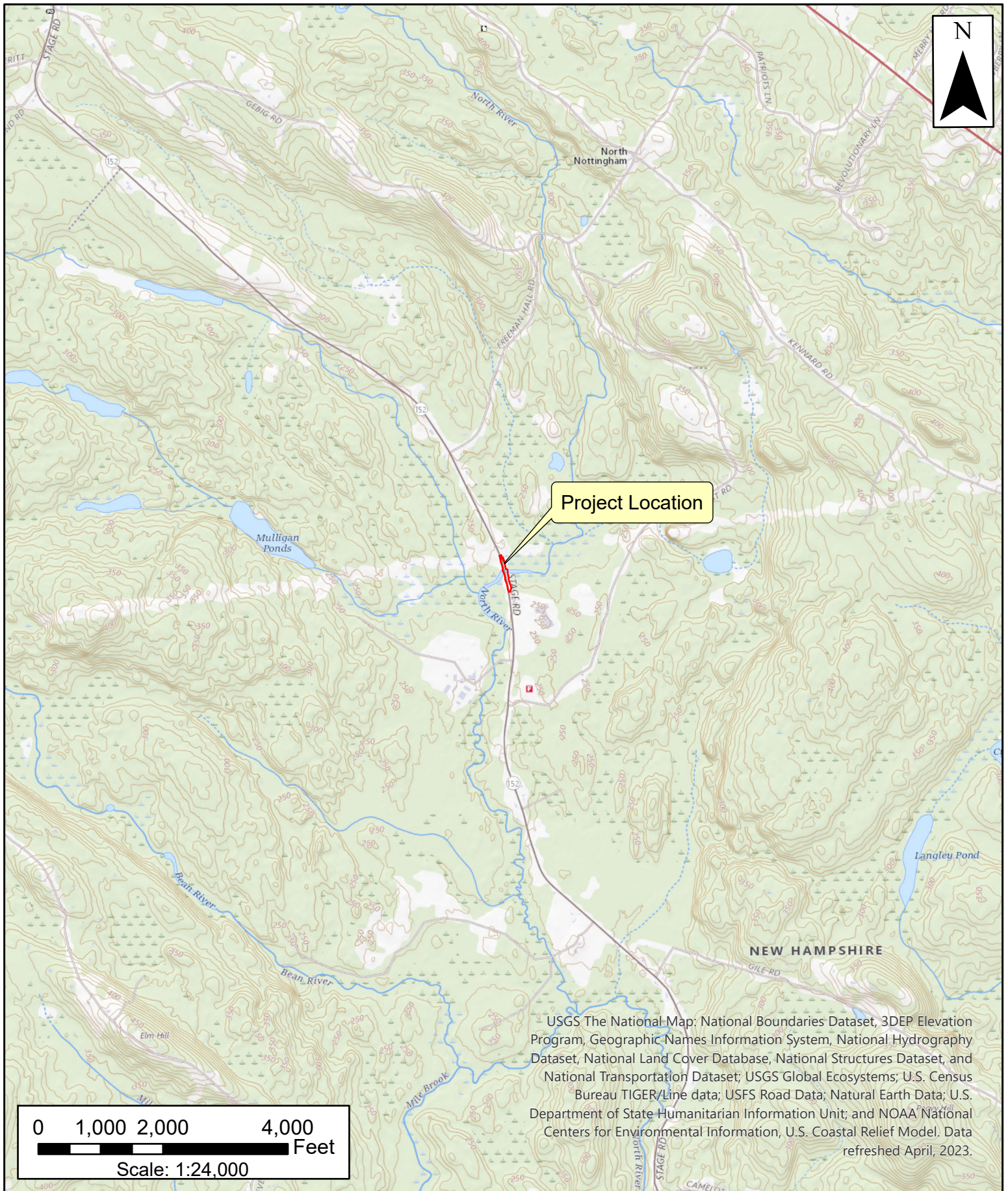
IMPERVIOUS AREA THRESHOLDS (RSA 483-B:9, V(g))
<input type="checkbox"/> A net decrease or no net increase in impervious area is proposed (If line E is less than or equal to line D).
<input type="checkbox"/> The percentage of post-construction impervious area (line E) is less than or equal to 20%. This project <i>does not require</i> a stormwater management plan and <i>does not require</i> a plan demonstrating that each waterfront buffer grid segment at least meets the minimum required tree and sapling point score.
<input type="checkbox"/> A net increase in impervious area is proposed and the percentage of post-construction impervious area (line E) is greater than 20%, but less than 30%. This project <i>requires</i> a stormwater management but <i>does not require</i> a plan demonstrating that each waterfront buffer grid segment at least meets the minimum required tree and sapling point score. <i>See details on Application Checklist</i>
<input type="checkbox"/> A net increase in impervious area is proposed and the percentage of post-construction impervious area (line E) is greater than 30%. This project <i>requires</i> a stormwater management plan designed and certified by a professional engineer <i>and requires</i> plans demonstrating that each waterfront buffer grid segment meets at least the minimum required tree and sapling point score. <i>See details on Application Checklist</i>

Natural Woodland Area Requirements

DETERMINING THE AREA TO REMAIN AS NATURAL WOODLAND	
Total area of the lot between 50 feet and 150 feet of the reference line within which the vegetation currently exists as natural woodland ⁵ (<i>see definition below</i>).	(F) FT ²
Total area of the lot between 50 feet and 150 feet from the reference line.	(G) FT ²
At least 25% of area (G) must remain in as natural woodland. $[0.25 \times G]$	(H) FT ²
Place the lesser of area (F) and calculation (H) on this line. To comply with the <i>natural woodland area requirement</i> , this is the minimum area that must remain as natural woodland between 50 feet and 150 feet from the reference line. This area must be represented on all plans and this area, exclusive of existing lawn, must remain in an unaltered state ⁶ .	(I) FT ²
Name of person who prepared this worksheet:	
Name and date of the plan associated with this worksheet:	

⁵ **“Natural Woodland”** means a forested area consisting of various species of trees, saplings, shrubs, and ground covers in any combination and at any stage of growth (483-B:4, XI).

⁶ **“Unaltered State”** means native vegetation allowed to grow without cutting, limbing, trimming, pruning, mowing, or other similar activities except as needed for renewal or to maintain or improve plant health (483-B:4, XXIV-b).



USGS Location Map
Nottingham 40612
NH Route 152 over North River
Nottingham, NH



Supplemental Narrative

Project Description

The project involves the replacement of the existing bridge that carries NH Route 152 over the North River (Bridge No. 141/127) in Nottingham. The existing bridge is a reinforced concrete jack-arch structure with a 17-foot clear span and is currently on the State's Red List. Proposed work includes the replacement of the existing bridge with a 30-foot clear span bridge. The existing bridge is 28 feet wide. Since the standard width for state routes is 30 feet, the proposed bridge will be 2 feet wider than the existing bridge. The project includes 300 feet of roadway widening on each end of the bridge to transition the additional width on each side of the roadway at each bridge approach back to the existing roadway. The bridge will be closed during construction and traffic will be detoured.

The purpose of the project is to improve safety by replacing a deteriorated bridge. Rehabilitation of the existing bridge is not feasible due to the poor condition of the existing substructure. In addition, the existing bridge is undersized and does not convey the 100-year storm. The proposed project will increase the hydraulic capacity of the crossing and the new bridge will accommodate the 100-year storm.

Permanent easements will be required near the bridge on both sides of NH Route 152. Temporary easements will be required for the approach roadway slope work to the north and south of the bridge. The property on the west side of NH Route 152 (Fernald property, locally known as Mulligan Forest) is under a conservation easement that is held by the Society for the Protection of NH Forests (SPNHF). The project will require the acquisition of temporary and permanent easements on this property. Coordination with SPNHF has been initiated and an on-site meeting between NHDOT and SPNHF was held in September 2023. A public hearing was held on March 21, 2024. Easements will be obtained prior to the start of construction.

Since the project involves less than 50,000 square feet of overall disturbance, stormwater treatment in accordance with the NHDES Alteration of Terrain rules is not required. Stormwater runoff will sheet flow from the roadway into open drainage ditches, similar to existing conditions. This proposed increase in impervious surface is not expected to be substantial enough to have an impact on water quality in the project area. Erosion and sediment controls will be used to minimize temporary water quality impacts during construction.

The proposed project will result in permanent and temporary impacts to the North River channel and adjacent floodplain wetlands and will occur from the construction of the new bridge abutments and the placement of stone for scour protection and a wildlife crossing shelf. In addition, a small amount of permanent wetland impact will occur south of the bridge for roadway slope work. Temporary wetland and watercourse impacts will result from dewatering and stream diversion during construction. A NHDES Wetlands Permit application is being submitted for the proposed temporary and permanent impacts within floodplain wetlands and the North River channel.

Protected Shoreland Impacts

The project proposes approximately 25,748 square feet of impact within the Protected Shoreland (refer to the following table for a summary of the impacts). These impacts will result from construction access, roadway reconstruction/widening, and bridge replacement.

Protected Shoreland Impacts*

	Proposed Impact
Reference line to Waterfront Buffer (0 feet to 50 feet)	5,327 square feet
Waterfront Buffer to Natural Woodland Buffer (50 feet to 150 feet)	10,833 square feet
Natural Woodland Buffer to Protected Shoreland (150 feet to 250 feet)	9,588 square feet

*Areas shown are within the project limits (NHDOT existing right-of-way and proposed easements) and the 250-foot Protected Shoreland Zone

The project proposes impacts within the Natural Woodland Buffer (NWB) Zone. There is currently no natural woodland within the existing NHDOT right-of-way. A small amount of natural woodland (253 square feet) exists within proposed temporary easements south of the bridge. Clearing of this natural woodland area is required for the widening of the roadway. As a result, no natural woodland will be maintained within the project area post-construction. Since there is currently very minimal natural woodland within the project area, the proposed clearing will not substantially change the existing conditions. Additional natural woodland cannot be maintained since the project is a linear bridge/roadway project and the existing NHDOT right-of-way is relatively narrow.

Natural Woodland Buffer Summary*

Total NWB Area within Project Limits	11,024 square feet
Existing NWB within Project Limits	253 square feet
Area to Remain as natural woodland	0 square feet

*The limits of the project include the area within the existing NHDOT right-of-way and proposed easements

The project will result in new impervious surface (pavement) within the Protected Shoreland from bridge and roadway widening. The bridge will be widened from 28 feet to 30 feet and 300 feet of roadway widening is proposed at the bridge approach to match the existing pavement to the widened bridge. This will result in a net increase in impervious surface of approximately 2,184 square feet within the Protected Shoreland. The new impervious surface will be within the existing NHDOT right-of-way.

Existing and Proposed Impervious*

Existing Impervious Area	12,837 square feet
Proposed New Impervious Area	
Permanent	2,184 square feet
Temporary	0 square feet
Post-Construction Impervious Area	15,021 square feet
Total Area within Protected Shoreland	29,970 square feet
Percentage of Existing Impervious	43%
Percentage of Total Post-Construction Impervious	50%

*Areas shown are within the project limits (NHDOT existing right-of-way and proposed easements) and the 250-foot Protected Shoreland Zone

The percentages of existing and proposed impervious surface within the project are both greater than 30%. Since the project is a linear bridge/roadway project, a large portion of the area within the NHDOT right-of-way is existing roadway pavement. As described above, stormwater treatment is not proposed since the project is not subject to AoT or MS4 requirements. The proposed increase in impervious surface is minor and is not expected to have an adverse effect on water quality.

Tree Clearing

Tree clearing within the Protected Shoreland is proposed south of the bridge for slope work from roadway widening. Approximately 1,530 square feet of tree clearing is anticipated within the Protected Shoreland. Approximately 2,750 square feet total of tree clearing is anticipated within the entire project area.

The Waterfront Buffer within the project limits does not include any trees and consists of emergent/scrub-shrub wetlands adjacent to the North River as well as mowed roadside areas. Since there are no existing trees within the Waterfront Buffer, no tree removal is proposed. A small amount of shrub and groundcover vegetation will be removed for roadway widening, bridge abutment construction, and slope work. The slopes adjacent to the proposed roadway will be loamed and seeded once construction is complete. Shrub vegetation will be allowed to reestablish outside of the mowed roadway shoulder.



REQUEST WAIVER OF MINIMUM STANDARDS Water Division / Land Resources Management Shoreland Program



Check the status of your application.

RSA/ Rule: RSA 483-B:9, V(i) / Env-Wq 1409

You may use this form to request a waiver of the Minimum Standards of RSA 483-B:9, V of the Shoreland Water Quality Protection Act.

Waivers may only be granted if strict compliance with the minimum standards will provide no material benefit to the public and have no material adverse effect on the environment or the natural resources of the state.

To be eligible, applicants must clearly demonstrate how these criteria are satisfied (as described in Sections 1-3). Alternatively, you may request a waiver to accommodate the reasonable needs of persons with disabilities (as described in Sections 1 and 4).

Form with two sections: SECTION 1 - MINIMUM STANDARD(S) REQUESTED TO BE WAIVED (Env-Wq 1409.01) and SECTION 2 - EXPLAIN HOW STRICT COMPLIANCE WITH THE MINIMUM STANDARD(S) WOULD PROVIDE NO MATERIAL BENEFIT TO THE PUBLIC (Env-Wq 1409.01; RSA 483-B:9, V(i))

shoreland@des.nh.gov or (603) 271-2147 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095 des.nh.gov

SECTION 3 - EXPLAIN HOW GRANTING A WAIVER OF THE MINIMUM STANDARDS WOULD HAVE NO MATERIAL ADVERSE EFFECT ON THE ENVIRONMENT OR NATURAL RESOURCES OF THE STATE (Env-Wq 1409.01; RSA 483-B:9, V(i))

SECTION 4 - PERSONS WITH DISABILITIES (Env-Wq 1409.01; Env-Wq 1409.02(b); RSA 483-B:9, V(i))

Please provide an explanation of how the proposal is adequate to ensure that the intent of RSA 483-B is met. Please explain why granting a waiver is necessary to accommodate the individual's disability. Please note that medical details are not being requested. Please only describe the limitations faced by the individual(s) for whom the waiver is being requested.

Please also submit a statement signed by the physician attending the individual for the disability or disabilities certifying that the impacts or structures for which the waiver is being requested are necessary to accommodate the individual's disability or disabilities. Please note, details specific to the nature of the disability are not requested. Only specify that the project is necessary to meet the needs specific to the individual for whom the waiver is being requested.

Statement submitted.



Photo 1. Southeast bridge quadrant, upstream of crossing. Tree clearing is proposed along the roadway in the wooded area in the background of the photograph. Photo taken on 5/31/2019.



Photo 2. View northwest of Bridge No. 141/127, looking toward northeast bridge quadrant. Photo taken on 5/31/2019.

NH Route 152 over the North River
Bridge Replacement
Nottingham 40612



Photo 3. View north of downstream side of Bridge No. 141/127. Photo taken on 5/31/2019.



Photo 4. View south of Bridge No. 141/127, looking toward west/downstream side of bridge. Photo taken on 5/31/2019.

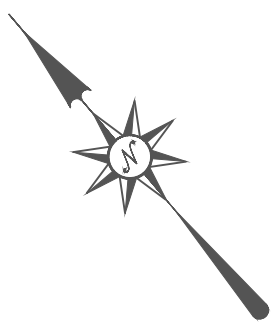


Photo 5. View south toward proposed Natural Woodland Buffer clearing area located southwest of the bridge. Photo taken on 5/31/2019.



Photo 6. View north along NH Route 152 toward Bridge No. 141/127. Photo taken on 5/31/2019.

PROPERTY MAP
NOTTINGHAM
 NEW HAMPSHIRE



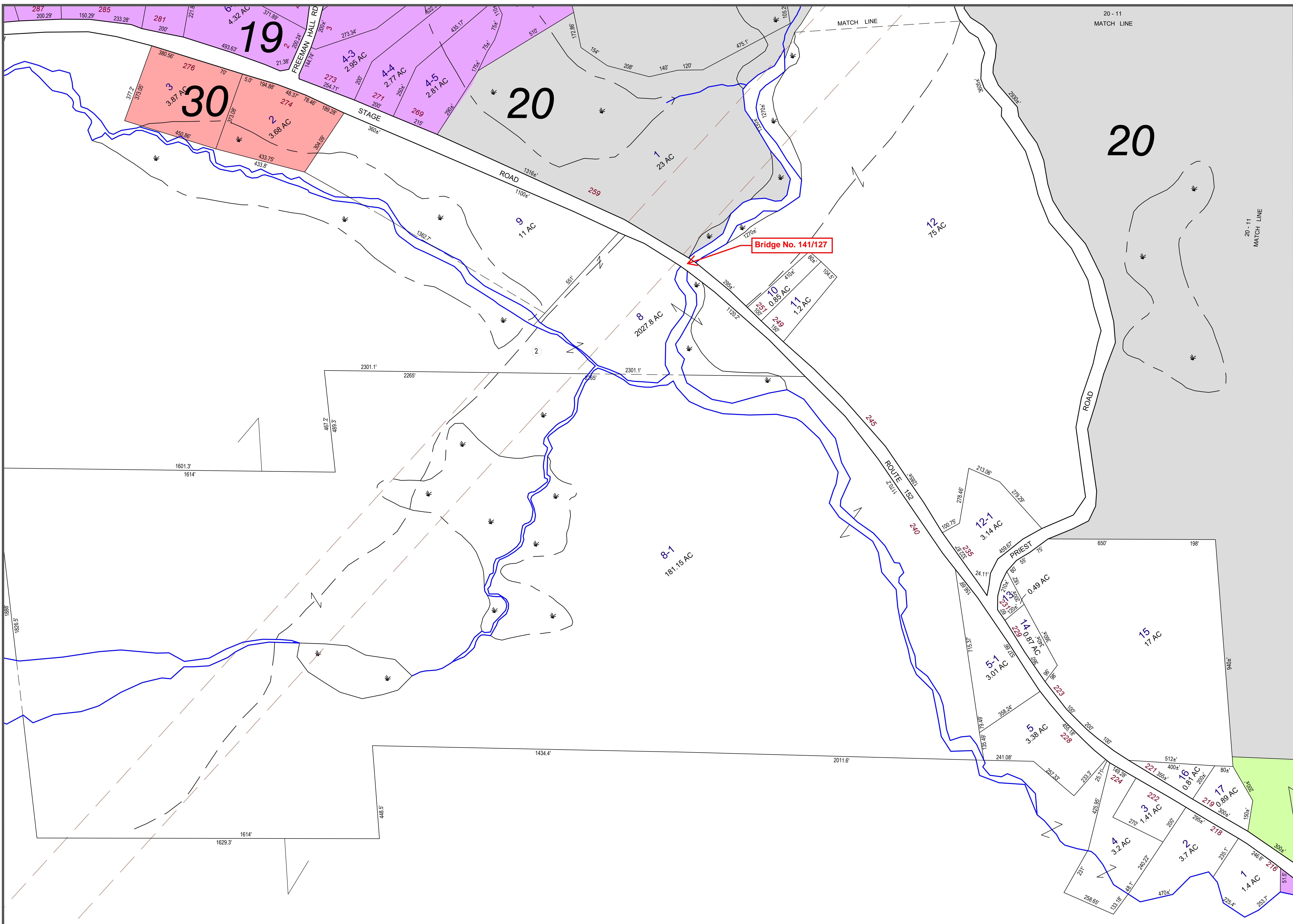
LEGEND

ARBITING MAP NO.	R11	LOT DIMENSION	—
PARCEL NUMBER	74	PROPERTY LINES	—
SUBDIVISION LOT NO.	74	RIGHT OF WAY	—
STREET ADDRESS NO.	74	EASEMENT	—
		ROAD	—
		ROUTE	—
		STAGE	—
		BRIDGE	—
		WATER	—
		ENCLOSURE	—

SCALE IN FEET

0 200 400

Revised & Reprinted by
 CAI Technologies
 Littleton, NH 03561
 Original Mapping
 Prepared by
 John E. O'Donnell & Associates





NHB DataCheck Results Letter

NH Natural Heritage Bureau

Please note: maps and NHB record pages are **confidential** and shall be redacted from public documents.

To: Ethan Maskiell, GM2 Associates, Inc.
197 Loudon Rd, Suite 310
Concord, NH 03281
emaskiell@gm2inc.com

From: NHB Review
NH Natural Heritage Bureau
Main Contact: Ashley Litwinenko - nhbreview@dncr.nh.gov

cc: NHFG Review

Date: 01/03/2024 (valid until 01/03/2025)

Re: DataCheck Review by NH Natural Heritage Bureau and NH Fish & Game

Permits: NHDES - Shoreland Standard Permit, NHDES - Wetland Standard Dredge & Fill - Major, USACE - General Permit

NHB ID: NHB23-3677

Town: Nottingham

Location: Bridge No. 141/127 - NH Route 152 over the North River

Project Description: The project involves the replacement of the NH Route 152 bridge over the North River (Bridge No. 141/127) in Nottingham (NHDOT Project 40612). The existing bridge is a reinforced concrete jack-arch structure with a 17-foot span. It will be replaced with a 30-foot span bridge. The project also involves 200 feet of roadway widening on each side of the bridge to transition the additional 3 feet on each side of the roadway at each bridge approach back to the existing roadway. The bridge would be closed during construction and traffic would be detoured. This is an update to NHB22-3131.

Next Steps for Applicant:

NHB's database has been searched for records of rare species and exemplary natural communities. Please carefully read the comments and consultation requirements below.

NHB Comments: On 12/1/2022, Ashley Litwinenko recommended surveys occur for NHB22-3131 for climbing hempvine. I was unable to find results for this survey. If surveys occurred, please send NHB the results. If surveys have not occurred, please follow Ashley's recommendations to conduct this survey.

NHFG Comments: Please refer to NHFG consultation requirements below.

NHB Consultation

If this NHB DataCheck letter includes records of rare plants and/or natural communities/systems, please contact NHB and provide any requested supplementary materials by emailing nhbreview@dncr.nh.gov.



NHB DataCheck Results Letter

NH Natural Heritage Bureau

Please note: maps and NHB record pages are **confidential** and shall be redacted from public documents.

If this NHB DataCheck letter DOES NOT include any records of rare plants and/or natural communities/systems, no further consultation with NHB is required.

NH Fish and Game Department Consultation

If this NHB DataCheck letter DOES NOT include ANY wildlife species records, then, based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

If this NHB DataCheck letter includes a record for a threatened (T) or endangered (E) wildlife species, consultation with the New Hampshire Fish and Game Department under Fis 1004 may be required. To review the Fis 1000 rules (effective February 3, 2022), please go to <https://www.wildlife.nh.gov/wildlife-and-habitat/nongame-and-endangered-species/environmental-review>. All requests for consultation and submittals should be sent via email to NHFGreview@wildlife.nh.gov or can be sent by mail, and **must include the NHB DataCheck results letter number and "Fis 1004 consultation request" in the subject line.**

If the NHB DataCheck response letter does not include a threatened or endangered wildlife species but includes other wildlife species (e.g., Species of Special Concern), consultation under Fis 1004 is not required; however, some species are protected under other state laws or rules, so coordination with NH Fish & Game is highly recommended or may be required for certain permits. While some permitting processes are exempt from required consultation under Fis 1004 (e.g., *statutory permit by notification, permit by rule, permit by notification, routine roadway registration, docking structure registration, or conditional authorization by rule*), coordination with NH Fish & Game may still be required under the rules governing those specific permitting processes, and it is recommended you contact the applicable permitting agency. For projects not requiring consultation under Fis 1004, but where additional coordination with NH Fish and Game is requested, please email NHFGreview@wildlife.nh.gov, and include the NHB DataCheck results letter number and "review request" in the email subject line.

Contact NH Fish & Game at (603) 271-0467 with questions.



NHB DataCheck Results Letter

NH Natural Heritage Bureau

Please note: maps and NHB record pages are **confidential** and shall be redacted from public documents.

NHB Database Records:

The following record(s) have been documented in the vicinity of the proposed project.

Please see the map and detailed information about the record(s) on the following pages.

Plant species	State ¹	Federal	Notes
climbing hempvine (<i>Mikania scandens</i>)	E	--	Threats include changes to the hydrology (e.g., water levels) of its habitat and increased sedimentation or nutrients and pollutants in stormwater runoff.
Vertebrate species	State¹	Federal	Notes
American Eel (<i>Anguilla rostrata</i>)	SC	--	Contact the NH Fish & Game Dept (see above).
Blanding's Turtle (<i>Emydoidea blandingii</i>)	E	--	Contact the NH Fish & Game Dept (see below).
Bridle Shiner (<i>Notropis bifrenatus</i>)*	T	--	Contact the NH Fish & Game Dept (see above).
Northern Black Racer (<i>Coluber constrictor constrictor</i>)	T	--	Contact the NH Fish & Game Dept (see above).
Spotted Turtle (<i>Clemmys guttata</i>)	T	--	Contact the NH Fish & Game Dept (see below).
Wood Turtle (<i>Glyptemys insculpta</i>)	SC	--	Contact the NH Fish & Game Dept (see below).

¹Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list.

An asterisk (*) indicates that the most recent report for that occurrence was 20 or more years ago.

For all animal reviews, refer to 'IMPORTANT: NHFG Consultation' section above.

Disclaimer: NHB's database can only tell you of known occurrences that have been reported to NHFG/NHB. Known occurrences are based on information gathered by qualified biologists or members of the public, reported to our offices, and verified by NHB/NHFG.

However, many areas have never been surveyed, or have only been surveyed for certain species.

NHB recommends surveys to determine what species/natural communities are present onsite.

Jennifer Riordan

From: DNCR: NHB Review <nhbreview@dncr.nh.gov>
Sent: Tuesday, January 9, 2024 11:49 AM
To: Jennifer Riordan
Cc: Ethan Maskiell; Brown, Joshua
Subject: [WARNING-EXT]RE: NHB23-3677 - Nottingham 40612

Hi Jenn,

Thank you for sending along the rare plant survey report for climbing hempvine (*Mikania scandens*). Because the rare plant was not found during thorough surveys in suitable habitat at the appropriate time of year, NHB has no further concerns regarding NHB23-3677.

Thank you,

Maddie Severance (she/her/hers)
Ecological Information Specialist
New Hampshire Natural Heritage Bureau (NHB)
Division of Forests & Lands
NH Dept. of Natural & Cultural Resources
172 Pembroke Rd
Concord, NH 03301
(603)-271-0687 (office)



From: Jennifer Riordan <JRiordan@GM2INC.COM>
Sent: Tuesday, January 9, 2024 9:17 AM
To: DNCR: NHB Review <nhbreview@dncr.nh.gov>
Cc: Ethan Maskiell <EMaskiell@GM2INC.COM>; Brown, Joshua <Joshua.R.Brown@dot.nh.gov>
Subject: NHB23-3677 - Nottingham 40612

EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.

This email is to follow up on NHB23-3677 (formerly NHB22-3131), NHDOT Project No. 40612 (NH Route 152 over the North River bridge replacement in Nottingham). FB Environmental conducted a survey for climbing hempvine in September 2023. The species was not found within the survey area. Attached is a memo summarizing their survey methodology and results. Please let us know if you have questions or need any further information.

Thanks,

Jenn

 **JENNIFER RIORDAN, CWS, CPESC**
Senior Environmental Scientist
P 603.856.7854
C 603.724.4950
www.gm2inc.com 

Brown, Joshua

From: Joshua.R.Brown@dot.nh.gov
Subject: FW: [WARNING-EXT]FW: NHB22-3131, North River, NHDOT Bridge No.141/127, Nottingham 40612, New NHB23-3677

Hi Jennifer,

Attached is the final list of NH Fish and Game recommendations. I'm attaching the original email from F&G from back in January and this email following the new NHB that stated no additional recommendations on top of these. That is included below.

Thank you,

Josh Brown | 603-271-6916
NHDOT | Bureau of Environment
[Wetlands Program](#)
7 Hazen Drive, Concord, NH 03302

From: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Sent: Tuesday, April 2, 2024 2:24 PM
To: Brown, Joshua <Joshua.R.Brown@dot.nh.gov>
Subject: RE: [WARNING-EXT]FW: NHB22-3131, North River, NHDOT Bridge No.141/127, Nottingham 40612, New NHB23-3677

Hi Josh,

1. Blanding's Turtle (State endangered), Northern Black Racer (State threatened) and Spotted turtle (State threatened) occur within the vicinity of the project area. All operators and personnel working on or entering the site shall be made aware of the potential presence of these species and shall be provided flyers that help to identify these species, along with NHFG contact information.
2. Rare species information (e.g. identification, observation and reporting of observations, when to contact NHFG immediately and NHFG contact information) shall be communicated during the project's preconstruction meeting prior to work and rare species flyers shall be included on the project's bulletin board. The rare species commitments shall be included in the project's Summary of Environmental Issues and the rare species flyers shall be included in the project's contract. Additionally, rare species information shall be communicated when weekly project progress meetings are held on site.
3. Turtles may be attracted to disturbed ground during nesting season (May 15th – June 30th). All turtle species nests are protected by NH laws. If a nest is observed or suspected, operators shall contact Melissa Winters (603-479-1129) or Josh Megyesy (978-578-0802) at NHFG immediately for further consultation.
4. Black silt fence shall be anchored over the ground surface of exposed soils along the south side of the bridge prior to turtle nesting season to prevent turtles from laying eggs in the work zone.
5. The 30' replacement span bridge structure shall have an open bottom consisting of natural stream material. Stream bed material shall not include sharp, angular surfaces, such as rip-rap. If rip-rap must be used, it shall be covered with natural stream material to mimic upstream and downstream streambed conditions.
6. Dry wildlife passage shall be incorporated into the design considerations under the proposed bridge. Rip-rap or large stones shall be used to construct a wildlife shelf.

7. Voids within rip-rap, such as under the bridge up to the abutments and within the wildlife shelf, shall be filled with finer material (i.e. native material in between rip-rap) to create a relatively smooth surface for wildlife to traverse.
8. All manufactured erosion and sediment control products, with the exception of turf reinforcement mats, utilized for, but not limited to, slope protection, runoff diversion, slope interruption, perimeter control, inlet protection, check dams, and sediment traps shall not contain plastic, or multifilament or monofilament polypropylene netting or mesh with an opening size of greater than 1/8 inches.
9. All observations of threatened or endangered species on the project site shall be reported immediately to the NHFG nongame and endangered wildlife environmental review program by phone at 603-271-2461 and by email at NHFGreview@wildlife.nh.gov, with the email subject line containing the NHB DataCheck tool results letter assigned number, the project name, and the term Wildlife Species Observation.
10. Photographs of the observed species and nearby elements of habitat or areas of land disturbance shall be provided to NHFG in digital format at the above email address for verification, as feasible.
11. In the event a threatened or endangered species is observed on the project site during the term of the permit, the species shall not be disturbed, handled, or harmed in any way prior to consultation with NHFG and implementation of corrective actions recommended by NHFG.
 - a. Site operators shall be allowed to relocate wildlife encountered if discovered within the active work zone if in direct harm from project activities. Wildlife shall be relocated in close proximity to the capture location but outside of the work zone and in the direction the individual was heading. NHFG shall be contacted immediately if this action occurs.
12. NHFG, including its employees and authorized agents, shall have access to the property during the term of the permit. NHFG shall contact the NHDOT's Contract Administrator or Environmental Coordinator for the project to coordinate access to the site. In the case of an emergency need for immediate access, NHFG shall contact Kevin Nyhan at 603-271-3226.
13. American Eel (State species of special concern) may occur within the vicinity of the project site. Site operators should be informed of the potential presences of this species.
14. The Wood Turtle flyer will be included in the contract documents and the Summary of Environmental Issues will include a commitment to make personnel aware of the potential presence of this species and a requirement to contact F&G if they are encountered in the project area.

From: Brown, Joshua <Joshua.R.Brown@dot.nh.gov>

Sent: Monday, April 1, 2024 3:11 PM

To: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>

Subject: FW: [WARNING-EXT]FW: NHB22-3131, North River, NHDOT Bridge No.141/127, Nottingham 40612, New NHB23-3677

Hi Rebecca!

Can you help me address Jennifer's question below for Nottingham, 40612? I think we just need the email before the last one from Kevin Newton with the last recommendations received to include in the wetlands application.

I checked the project folder in the rare species folder and didn't see the email correspondence.

Thank you,

Josh Brown | 603-271-6916

NHDOT | Bureau of Environment

[Wetlands Program](#)

7 Hazen Drive, Concord, NH 03302

From: Jennifer Riordan <JRiordan@GM2INC.COM>
Sent: Thursday, March 28, 2024 10:25 AM
To: Brown, Joshua <Joshua.R.Brown@dot.nh.gov>
Subject: RE: [WARNING-EXT]FW: NHB22-3131, North River, NHDOT Bridge No.141/127, Nottingham 40612, New NHB23-3677

EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.

Thanks!

Do you have the final recommendations? I have an email from last April (attached) and some coordination emails between Rebecca and NHFG but not a complete list of the revised recommendations. I believe Rebecca had some comments/revisions to the text and concerns with #4 regarding placing black silt fence fabric over the ground.

Jenn

JENNIFER RIORDAN, CWS, CPESC

P 603.856.7854 | C 603.724.4950



From: Brown, Joshua <Joshua.R.Brown@dot.nh.gov>
Sent: Thursday, March 28, 2024 9:53 AM
To: Jennifer Riordan <JRiordan@GM2INC.COM>
Cc: Tremblay, Jason <Jason.A.Tremblay@dot.nh.gov>; Darren Blood <DBlood@GM2INC.COM>; Tom Levins <TLevins@GM2INC.COM>; Jennifer Mercer <JMercer@GM2INC.COM>; Ethan Maskiell <EMaskiell@GM2INC.COM>
Subject: [WARNING-EXT]FW: NHB22-3131, North River, NHDOT Bridge No.141/127, Nottingham 40612, New NHB23-3677

Hi Jennifer,

FYI – see below as coordination was wrapped up yesterday.

Thanks!

Josh

From: Newton, Kevin <Kevin.M.Newton@wildlife.nh.gov>
Sent: Wednesday, March 27, 2024 2:03 PM
To: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Cc: FGC: NHFG review <NHFGreview@wildlife.nh.gov>; Brown, Joshua <Joshua.R.Brown@dot.nh.gov>
Subject: RE: NHB22-3131, North River, NHDOT Bridge No.141/127, Nottingham 40612, New NHB23-3677

Hi Rebecca,

NHFG does not have any additional recommendations beyond what was previously discussed. Based on the identification of rare species on site by FB Environmental when they were doing their assessment, NHDOT / contractors should be extra vigilant and should report any sightings to NHFG Nongame program immediately.

Thanks,

Kevin Newton
Wildlife Biologist
NH Fish and Game Department
Wildlife Division
11 Hazen Drive, Concord NH 03301
Phone: 603-271- 5860

New Hampshire Fish and Game requirements for environmental review consultation can be found at: https://gencourt.state.nh.us/rules/state_agencies/fis1000.html. ALL requests for consultation and submittals should be sent via email to NHFGreview@wildlife.nh.gov or can be sent hardcopy by mail. **The NHB datacheck results letter number needs to be included in the email subject line to read as "NHBxx-xxxx_Project Name_FIS 1004 Consultation Submittal"**.

The requirements for consultation (Fis 1004) shall not apply to the following: statutory permit by notification, permit by rule, permit by notification, routine roadway registration, docking structure registration, or conditional authorization by rule. Review requests for these projects or other project types should be submitted to NHFGreview@wildlife.nh.gov or can be sent hardcopy by mail – email or mail subject line for these review requests should read "NHBxx-xxxx_Project Name_ Env. Review Request".

Please provide shapefiles/KMZ/KMLs of the project site (and relevant features if applicable) with your submittal. Review statements provided in the NHB Datacheck Results letter for additional guidance.

From: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Sent: Wednesday, March 27, 2024 11:08 AM
To: Newton, Kevin <Kevin.M.Newton@wildlife.nh.gov>
Cc: FGC: NHFG review <NHFGreview@wildlife.nh.gov>; Brown, Joshua <Joshua.R.Brown@dot.nh.gov>
Subject: RE: NHB22-3131, North River, NHDOT Bridge No.141/127, Nottingham 40612, New NHB23-3677

Hello Kevin,

Josh Brown has taken over as the EM for the Nottingham 40612 project and he is preparing to submit the wetlands application. Were there any other conservation measures F&G would like to recommend for this project? Thanks for all of the coordination on this one, it was helpful in our discussions with the design team.

Best wishes,
Rebecca

From: Newton, Kevin <Kevin.M.Newton@wildlife.nh.gov>
Sent: Tuesday, January 16, 2024 9:27 AM
To: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Cc: FGC: NHFG review <NHFGreview@wildlife.nh.gov>; Winters, Melissa <Melissa.J.Winters@wildlife.nh.gov>; Brown, Joshua <Joshua.R.Brown@dot.nh.gov>
Subject: RE: NHB22-3131, North River, NHDOT Bridge No.141/127, Nottingham 40612, New NHB23-3677

Thanks Rebecca.

We will let you know if there are any changes to recommendations for the project.

Have a good week,

Kevin Newton
Wildlife Biologist
NH Fish and Game Department

Wildlife Division
11 Hazen Drive, Concord NH 03301
Phone: 603-271- 5860

New Hampshire Fish and Game requirements for environmental review consultation can be found at: https://gencourt.state.nh.us/rules/state_agencies/fis1000.html. ALL requests for consultation and submittals should be sent via email to NHFGreview@wildlife.nh.gov or can be sent hardcopy by mail. **The NHB datacheck results letter number needs to be included in the email subject line to read as "NHBxx-xxxx_Project Name_FIS 1004 Consultation Submittal"**.

The requirements for consultation (Fis 1004) shall not apply to the following: statutory permit by notification, permit by rule, permit by notification, routine roadway registration, docking structure registration, or conditional authorization by rule. Review requests for these projects or other project types should be submitted to NHFGreview@wildlife.nh.gov or can be sent hardcopy by mail – email or mail subject line for these review requests should read "NHBxx-xxxx_Project Name_ Env. Review Request".

Please provide shapefiles/KMZ/KMLs of the project site (and relevant features if applicable) with your submittal. Review statements provided in the NHB Datacheck Results letter for additional guidance.

From: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Sent: Tuesday, January 16, 2024 9:24 AM
To: Newton, Kevin <Kevin.M.Newton@wildlife.nh.gov>
Cc: FGC: NHFG review <NHFGreview@wildlife.nh.gov>; Winters, Melissa <Melissa.J.Winters@wildlife.nh.gov>; Brown, Joshua <Joshua.R.Brown@dot.nh.gov>
Subject: NHB22-3131, North River, NHDOT Bridge No.141/127, Nottingham 40612, New NHB23-3677

Hello Kevin,

Please see attached the new NHB report for the Nottingham 40612 project.

Thank you,

Rebecca Martin
Plant and Wildlife Program Manager
NH DOT Bureau of Environment
7 Hazen Drive
Concord, NH 03302
(603)271-6781
Rebecca.A.Martin@dot.nh.gov

Brown, Joshua

From: Newton, Kevin
Sent: Friday, January 12, 2024 2:26 PM
To: Martin, Rebecca
Cc: FGC: NHFG review; Winters, Melissa; Brown, Joshua; Benedict, Karl
Subject: RE: NHB22-3131, North River, NHDOT Bridge No.141/127, Nottingham 40612

Hi Rebecca and Josh,

Melissa shared with me some information regarding rare species records identified by FB consultants associated with an assessment they were completing on site. As a reminder, if they have not already been shared with NHFG (i.e Melissa), please share that information with us as soon as possible so we can add to our records.

Has any work been completed on site? We have also become aware that an updated NHB letter has been completed. Please share that with us as soon as possible as well as any proposed changes (if any) to the site plans or methodology.

Melissa has indicated given the apparent new occurrences of species on site identified by FB environmental as well as the updated NHB datacheck letter, she would like us to take a closer look at the project details and potentially reevaluate project recommendations.

I don't have an issue with the language proposed – Melissa, do you have any thoughts?

Have a good long weekend,

Kevin Newton
Wildlife Biologist
NH Fish and Game Department
Wildlife Division
11 Hazen Drive, Concord NH 03301
Phone: 603-271- 5860

New Hampshire Fish and Game requirements for environmental review consultation can be found at: https://gencourt.state.nh.us/rules/state_agencies/fis1000.html. ALL requests for consultation and submittals should be sent via email to NHFGreview@wildlife.nh.gov or can be sent hardcopy by mail. **The NHB datacheck results letter number needs to be included in the email subject line to read as "NHBxx-xxxx_Project Name_FIS 1004 Consultation Submittal"**.

The requirements for consultation (Fis 1004) shall not apply to the following: statutory permit by notification, permit by rule, permit by notification, routine roadway registration, docking structure registration, or conditional authorization by rule. Review requests for these projects or other project types should be submitted to NHFGreview@wildlife.nh.gov or can be sent hardcopy by mail – email or mail subject line for these review requests should read "NHBxx-xxxx_Project Name_ Env. Review Request".

Please provide shapefiles/KMZ/KMLs of the project site (and relevant features if applicable) with your submittal. Review statements provided in the NHB Datacheck Results letter for additional guidance.

From: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Sent: Friday, January 12, 2024 8:04 AM
To: Newton, Kevin <Kevin.M.Newton@wildlife.nh.gov>
Cc: FGC: NHFG review <NHFGreview@wildlife.nh.gov>; Winters, Melissa <Melissa.J.Winters@wildlife.nh.gov>; Brown,

Joshua <Joshua.R.Brown@dot.nh.gov>

Subject: RE: NHB22-3131, North River, NHDOT Bridge No.141/127, Nottingham 40612

Hi Kevin,

The Nottingham 40612 project is working its way towards a wetland permit application. There is a public meeting for the project planned later this month and a public hearing planned in March. Since the major effort now for the project is the wetland permit application, I have passed the project along to Josh Brown in the BOE Wetlands Program (copied here).

The design team for the project found your responses helpful (as did I), thank you for taking the time. The only remaining question was of the best way to ensure awareness of the potential presence during construction (#2 and additional recommendation #2). I had an opportunity to confer with the two Bureau of Environment Environmental Coordinators who oversee the NHDOT environmental commitments that pertain to construction activities. They visit the project sites weekly and check in with the Contract Administrators (CA) regularly about the environmental commitments developed during the projects' designs. I asked them what we could commit to *and* realistically expect to happen on the project site during construction. They confirmed that having commitments listed in the Summary of Environmental Issues (the green sheet I mentioned earlier), flyers posted on the bulletin board, and concerns noted at the pre-construction meeting are the best ways to raise awareness. The CA pays attention to these commitments and is generally on site daily (may not be the case with a small paving project) to ensure compliance with all contract commitments. I asked for the Environmental Coordinators help adjusting the recommendation to one that would be most likely to be successful. Could you please review and let me know if you would like to discuss further?

Rare species information (e.g. identification, observation and reporting of observations, when to contact NHFG immediately and NHFG contact information) shall be communicated during the project's preconstruction meeting prior to work and rare species flyers shall be included on the project's bulletin board. The rare species commitments shall be included in the project's Summary of Environmental Issues and the rare species flyers shall be included in the project's contract. Additionally, rare species information shall be communicated when weekly project progress meetings are held on site.

I hope that you had a Happy New Year and enjoyed the holidays!

Best wishes,
Rebecca

Rebecca Martin
Plant and Wildlife Program Manager
NH DOT Bureau of Environment
7 Hazen Drive
Concord, NH 03302
(603)271-6781
Rebecca.A.Martin@dot.nh.gov

From: Newton, Kevin <Kevin.M.Newton@wildlife.nh.gov>

Sent: Friday, June 2, 2023 1:09 PM

To: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>

Cc: FGC: NHFG review <NHFGreview@wildlife.nh.gov>; Winters, Melissa <Melissa.J.Winters@wildlife.nh.gov>

Subject: RE: NHB22-3131, North River, NHDOT Bridge No.141/127, Nottingham 40612

Hi Rebecca,

Thank you for your comments. We are happy to work with you to better tailor recommendations for DOT projects where possible. If we want to fine-tune, it might be best to schedule a meeting regarding DOT specific recommendation language so we can talk through them. The recommendations you are offering comments on have become standardized for our program, so I'm hesitant to deviate from them too much. I understand your points regarding keeping recommendations on plan sheets vs. moving them to the Summary of Environmental Issues document. I think has the potential to reduce compliance if sub-contractors don't regularly reference the summary document. Typically, applicants make a separate plan sheet that lists out our recommendations and has the flyers included directly on it. I'm happy to provide an example if you would like.

Some responses to your comments below:

- #2: The primary purpose of the tailgate meeting recommendation is to ensure anyone who is working on site is aware (reminded daily) of the potential to encounter rare wildlife while working.. Including this information in the Summary of Environmental Issues and within the project's contract is helpful, but should not replace the recommendation itself. If there is a more appropriate way to word this recommendation for situations where there are not daily meetings before starting work, we are open to suggestions.
- #5: the engineer is correct, the streambed in this case is synonymous with channel.
- #8: Yes, these materials are OK to be included in this design.
- #9: Thank you for pointing out this discrepancy. This item is on our list of corrections to make. Attached is a corrected flyer, which references the NHFGreview@wildlife.nh.gov email, which should be used.
- #10: Animals should not be handled unless in direct harm of project activities.
- #11: Relocation of listed wildlife is allowed only if in direct harm. If an individual is relocated, NHFG needs to be notified immediately to determine if additional action is needed.
- #12: This is an acceptable change.
- Additional recommendation #2: Similar response as to #2 in that we want this information to be reviewed by contractors daily to ensure compliance with reporting protocol and BMPs.

Let me know your thoughts. If you would like to discuss specific language further, I would suggest we schedule a conference call along with Melissa, as she likely would like to be involved.

Thanks,

Kevin Newton
Wildlife Biologist
NH Fish and Game Department
Wildlife Division
11 Hazen Drive, Concord NH 03301
Phone: 603-271- 5860

From: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Sent: Thursday, May 25, 2023 10:19 AM
To: Newton, Kevin <Kevin.M.Newton@wildlife.nh.gov>
Cc: FGC: NHFG review <NHFGreview@wildlife.nh.gov>; Winters, Melissa <Melissa.J.Winters@wildlife.nh.gov>; Duclos, Kristin <Kristin.L.Duclos@des.nh.gov>; Jennifer Riordan <jriordan@gm2inc.com>
Subject: RE: NHB22-3131, North River, NHDOT Bridge No.141/127, Nottingham 40612

Hi Kevin,

Thanks for your help with the review of this project. I checked in with the design team and we have a few questions and suggestions. Could you please review and let me know if you would like to discuss?

One thing I have seen come up on a few projects and meant to check in with you about is the reference to tailgate meetings and inclusion of the rare species information specifically on plan sheets (#2).

- Not all of our contractors have morning tailgate meetings- however, we do have a preconstruction meeting where all of the supervisors/foremen from the Contractor are supposed to be present and all of the important contract commitments are discussed. Our Bureau of Environment Environmental Coordinators attend and go through the project's environmental commitments (including wildlife) and are available to address any Contractor questions. The Environmental Coordinators visit active construction projects to discuss any commitments for the project periodically and our Contract Administrators are regularly onsite during construction to oversee all project commitments. Please see suggested commitment below.
- When we have a specific area of concern (more often for rare plants) it is helpful to put something on the plans, since it has location specific information. When there is not location specific information, we find it more helpful to include this type of information in the contract documents. We have a page called the *Summary of Environmental Issues* that we include in our contracts and it is the only page printed on green paper – everyone know that this page includes a summary of the project's environmental commitments and the color makes it an easy reference.

Best,
Rebecca

New Hampshire Fish and Game – Recommended Permit Conditions

1. Blanding's Turtle (State endangered), Northern Black Racer (State threatened) and Spotted turtle (State threatened) occur within the vicinity of the project area. All operators and personnel working on or entering the site shall be made aware of the potential presence of these species and shall be provided flyers that help to identify these species, along with NHFG contact information.
2. Rare species information (e.g. identification, observation and reporting of observations, when to contact NHFG immediately and NHFG contact information) shall be communicated during morning tailgate meetings prior to work commencement during the construction phase of the project. **See Plan Sheet xxxxxx**. Include attached flyers to plan sheet set.
Suggested: Rare species information (e.g. identification, observation and reporting of observations, when to contact NHFG immediately and NHFG contact information) shall be communicated during the project's preconstruction meeting prior to work and rare species flyers shall be included on the project's bulletin board. The rare species commitments shall be included in the project's *Summary of Environmental Issues* and the rare species flyers shall be included in the project's contract.
3. Turtles may be attracted to disturbed ground during nesting season (May 15th – June 30th). All turtle species nests are protected by NH laws. If a nest is observed or suspected, operators shall contact Melissa Winters (603-479-1129) or Josh Megyesy (978-578-0802) at NHFG immediately for further consultation.
4. Black silt fence shall be anchored over the ground surface of exposed soils along the south side of the bridge prior to turtle nesting season to prevent turtles from laying eggs in the work zone.
5. The 30' replacement span bridge structure shall have an open bottom consisting of natural stream material. Stream bed material shall not include sharp, angular surfaces, such as rip-rap. If rip-rap must be used, it shall be covered with natural stream material to mimic upstream and downstream streambed conditions.
The project engineer asked me to confirm that streambed is synonymous with channel (i.e. not banks and not the wildlife shelf).
6. Dry wildlife passage shall be incorporated into the design considerations under the proposed bridge. Rip-rap or large stones shall be used to construct a wildlife shelf.
7. Voids within rip-rap, such as under the bridge up to the abutments and within the wildlife shelf, shall be filled with finer material (i.e native material in between rip-rap) to create a relatively smooth surface for wildlife to traverse.

8. All manufactured erosion and sediment control products, with the exception of turf reinforcement mats, utilized for, but not limited to, slope protection, runoff diversion, slope interruption, **perimeter control**, inlet protection, check dams, and sediment traps shall not contain plastic, or multifilament or monofilament polypropylene netting or mesh with an **opening size of greater than 1/8 inches**.

The project engineer asked me to confirm that our typical black silt fence and in water turbidity control is okay to be erected on the project? These do include plastic but would not have openings of 1/8”.

9. All observations of threatened or endangered species on the project site shall be reported immediately to the NHFG nongame and endangered wildlife environmental review program by phone at 603-271-2461 and by email at NHFGreview@wildlife.nh.gov, with the email subject line containing the NHB DataCheck tool results letter assigned number, the project name, and the term Wildlife Species Observation.

The email here is different than the one listed on the wood turtle flyer.

10. Photographs of the observed species and nearby elements of habitat or areas of land disturbance shall be provided to NHFG in digital format at the above email address for verification, as feasible.
11. In the event a threatened or endangered species is observed on the project site during the term of the permit, **the species shall not be disturbed**, handled, or harmed in any way prior to consultation with NHFG and implementation of corrective actions recommended by NHFG.
 - a. Site operators **shall be allowed to relocate wildlife** encountered if discovered within the active work zone if in direct harm from project activities. Wildlife shall be relocated in close proximity to the capture location but outside of the work zone and in the direction the individual was heading. NHFG shall be contacted immediately if this action occurs.

The project engineer requested clarification of #10 and #11. For #10, if handling the species would allow for a better picture, should they move it? For #11 the first part says not to disturb the species and the second part says relocation. Does the wildlife relocation only pertain to non-listed species?

12. NHFG, including its employees and authorized agents, shall have access to the property during the term of the permit.

Please contact the NHDOT’s Contract Administrator or Environmental Coordinator, Darrel Elliot 603-419-9822, for the project to coordinate access to the site. Please ensure any F&G employees, or authorized agents, are accompanied by NHDOT personnel to ensure their safe access within construction zones.

Additional Recommendations:

1. American Eel (State species of special concern) may occur within the vicinity of the project site. Site operators should be informed of the potential presences of this species.
2. Wood Turtle (State species of special concern) may occur within the vicinity of the project site. All operators and personnel working on or entering the site should be made aware of the potential presence of these species and should be provided flyers that help to identify these species, along with NHFG contact information. **See Plan Sheet xxxxxx**. Include attached flyers to plan sheet set.

Suggested: The Wood Turtle flyer will be included in the contract documents and the *Summary of Environmental Issues* will include a commitment to make personnel aware of the potential presence of this species and a requirement to contact F&G if they are encountered in the project area.

From: Newton, Kevin <Kevin.M.Newton@wildlife.nh.gov>

Sent: Tuesday, April 25, 2023 1:43 PM

To: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>; Jennifer Riordan <jriordan@gm2inc.com>

Cc: FGC: NHFG review <NHFGreview@wildlife.nh.gov>; Winters, Melissa <Melissa.J.Winters@wildlife.nh.gov>; Duclos, Kristin <Kristin.L.Duclos@des.nh.gov>

Subject: NHB22-3131, North River, NHDOT Bridge No.141/127, Nottingham

Good afternoon,

New Hampshire Fish and Game has completed review of materials submitted for consultation for NHB22-3131 (*site plans dated*) 01/2020) prepared by GM2 Associates, Inc. The proposed project is the replacement of the existing reinforced concrete jack-arch structure, 17-foot NH Route 152 Bridge (NHDOT Bridge No.141/127) with a 30-foot span bridge over North River located in Nottingham, NH. The proposed project also involves 200 feet of roadway widening on each side of the bridge approach.

NHFG agrees with the incorporation of conservation measures previously provided by NHFG through correspondence with Kim Tuttle in 2019. The replacement bridge, consisting of a 30' open span, should result in improved wildlife passage opportunities if the below recommendations are implemented.

Applications associated with this review:

- NHDES – Wetland Standard Dredge & Fill – Major (pending)
- NHDES – Shoreland Standard Permit (pending)

Based on the NHB datacheck results letter and the information provided in the submission, we request the following recommended permit conditions. THESE RECOMMENDED PERMIT CONDITIONS ARE APPLICABLE TO ALL STATE PERMITS LISTED ABOVE.

- **Please include recommended permit conditions in final plan sheets plans as written below (updated highlighted text as applicable) and provide to NHDES and cc NHFG for final review. Permit reviewers will adopt/include NHFG permit conditions in the permit if approved.**

New Hampshire Fish and Game – Recommended Permit Conditions

1. Blanding's Turtle (State endangered), Northern Black Racer (State threatened) and Spotted turtle (State threatened) occur within the vicinity of the project area. All operators and personnel working on or entering the site shall be made aware of the potential presence of these species and shall be provided flyers that help to identify these species, along with NHFG contact information.
2. Rare species information (e.g. identification, observation and reporting of observations, when to contact NHFG immediately and NHFG contact information) shall be communicated during morning tailgate meetings prior to work commencement during the construction phase of the project. **See Plan Sheet xxxxxx**. Include attached flyers to plan sheet set.
3. Turtles may be attracted to disturbed ground during nesting season (May 15th – June 30th). All turtle species nests are protected by NH laws. If a nest is observed or suspected, operators shall contact Melissa Winters (603-479-1129) or Josh Megyesy (978-578-0802) at NHFG immediately for further consultation.
4. Black silt fence shall be anchored over the ground surface of exposed soils along the south side of the bridge prior to turtle nesting season to prevent turtles from laying eggs in the work zone.
5. The 30' replacement span bridge structure shall have an open bottom consisting of natural stream material. Stream bed material shall not include sharp, angular surfaces, such as rip-rap. If rip-rap must be used, it shall be covered with natural stream material to mimic upstream and downstream streambed conditions.
6. Dry wildlife passage shall be incorporated into the design considerations under the proposed bridge. Rip-rap or large stones shall be used to construct a wildlife shelf.
7. Voids within rip-rap, such as under the bridge up to the abutments and within the wildlife shelf, shall be filled with finer material (i.e native material in between rip-rap) to create a relatively smooth surface for wildlife to traverse.
8. All manufactured erosion and sediment control products, with the exception of turf reinforcement mats, utilized for, but not limited to, slope protection, runoff diversion, slope interruption, perimeter control, inlet protection, check dams, and sediment traps shall not contain plastic, or multifilament or monofilament polypropylene netting or mesh with an opening size of greater than 1/8 inches.
9. All observations of threatened or endangered species on the project site shall be reported immediately to the NHFG nongame and endangered wildlife environmental review program by phone at 603-271-2461 and by email

at NHFGreview@wildlife.nh.gov, with the email subject line containing the NHB DataCheck tool results letter assigned number, the project name, and the term Wildlife Species Observation.

10. Photographs of the observed species and nearby elements of habitat or areas of land disturbance shall be provided to NHFG in digital format at the above email address for verification, as feasible.
11. In the event a threatened or endangered species is observed on the project site during the term of the permit, the species shall not be disturbed, handled, or harmed in any way prior to consultation with NHFG and implementation of corrective actions recommended by NHFG.
 - a. Site operators shall be allowed to relocate wildlife encountered if discovered within the active work zone if in direct harm from project activities. Wildlife shall be relocated in close proximity to the capture location but outside of the work zone and in the direction the individual was heading. NHFG shall be contacted immediately if this action occurs.
12. NHFG, including its employees and authorized agents, shall have access to the property during the term of the permit.

Additional Recommendations:

1. American Eel (State species of special concern) may occur within the vicinity of the project site. Site operators should be informed of the potential presences of this species.
2. Wood Turtle (State species of special concern) may occur within the vicinity of the project site. All operators and personnel working on or entering the site should be made aware of the potential presence of these species and should be provided flyers that help to identify these species, along with NHFG contact information. **See Plan Sheet xxxxxx**. Include attached flyers to plan sheet set.

NHFG has completed our review of materials submitted for consultation under FIS 1004. No further coordination with NHFG is requested, and the final recommendations have been transmitted to the applicable permitting agency. Questions or concerns on NHFG recommendations must follow FIS 1004.12. Note that NHFG recommendations may be withdrawn pursuant to FIS 1004.

Sincerely,

Kevin Newton
Wildlife Biologist
NH Fish and Game Department
Wildlife Division
11 Hazen Drive, Concord NH 03301
Phone: 603-271- 5860

New Hampshire Fish and Game requirements for environmental review consultation can be found at: https://gencourt.state.nh.us/rules/state_agencies/fis1000.html. ALL requests for consultation and submittals should be sent via email to NHFGreview@wildlife.nh.gov or can be sent hardcopy by mail. **The NHB datacheck results letter number needs to be included in the email subject line to read as "NHBxx-xxxx_Project Name_FIS 1004 Consultation Submittal"**.

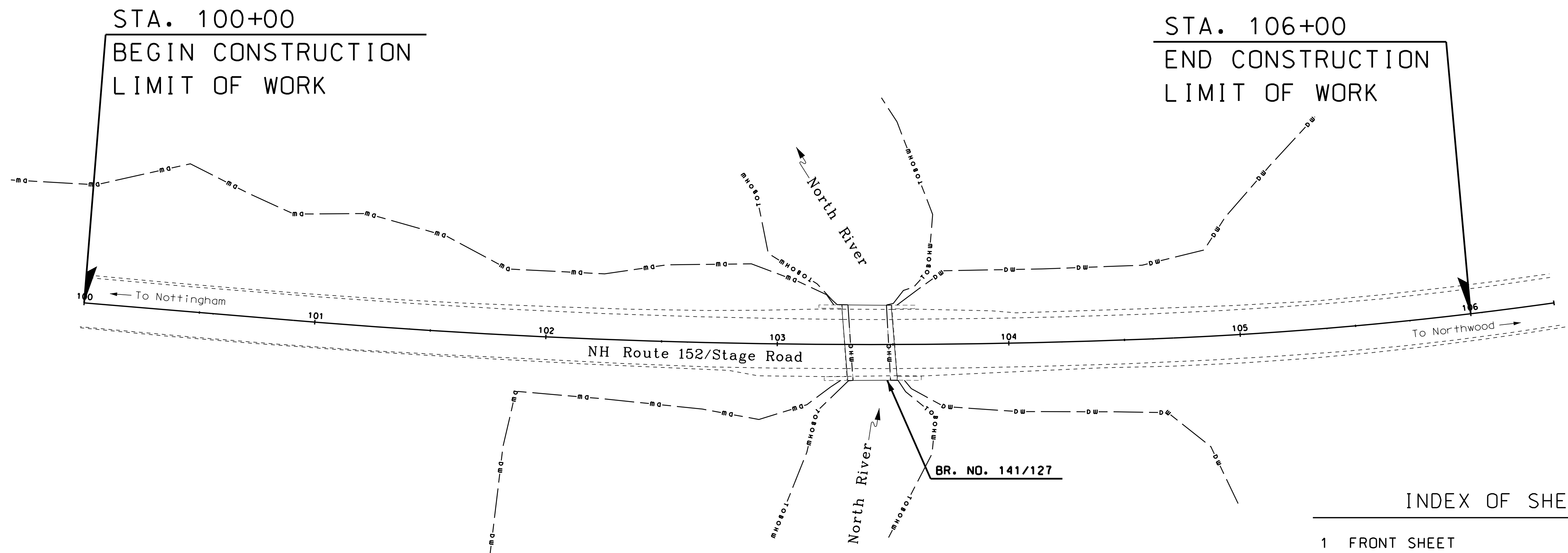
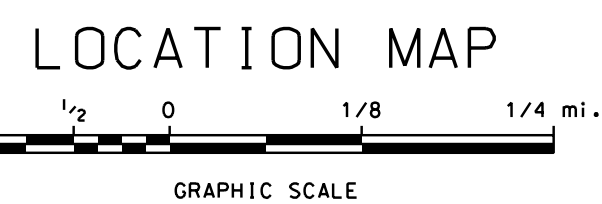
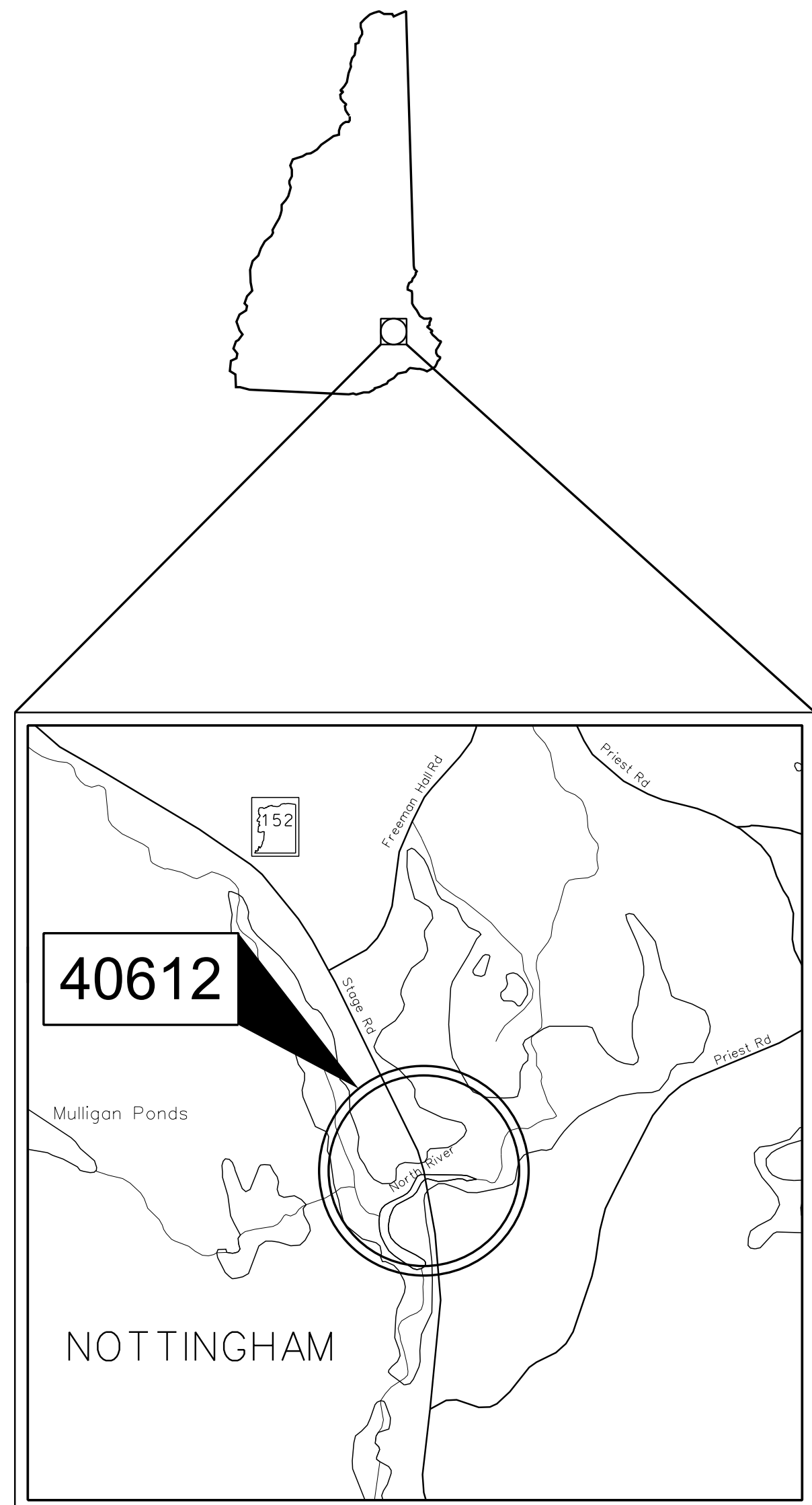
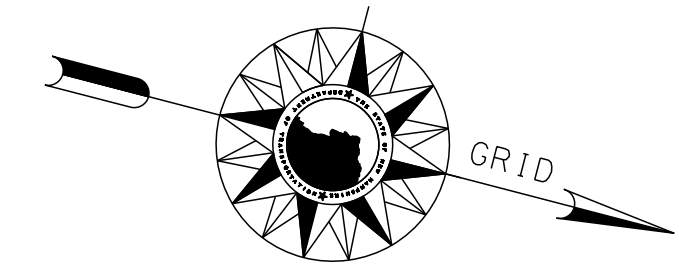
The requirements for consultation (Fis 1004) shall not apply to the following: statutory permit by notification, permit by rule, permit by notification, routine roadway registration, docking structure registration, or conditional authorization by rule. Review requests for these projects or other project types should be submitted to NHFGreview@wildlife.nh.gov or can be sent hardcopy by mail – email or mail subject line for these review requests should read **"NHBxx-xxxx_Project Name_ Env. Review Request"**.

Please provide shapefiles/KMZ/KMLs of the project site (and relevant features if applicable) with your submittal. Review statements provided in the NHB Datacheck Results letter for additional guidance.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
SHORELAND PLANS
BRIDGE REPLACEMENT PROJECT

NH PROJECT NO. 40612
NH ROUTE 152 OVER NORTH RIVER
BRIDGE NO. 141/127

DESIGN DATA	
AVERAGE DAILY TRAFFIC 20_14	3244
AVERAGE DAILY TRAFFIC 20_--	-
PERCENT OF TRUCKS	-
DESIGN SPEED	40 MPH
LENGTH OF PROJECT	600 FT



INDEX OF SHEETS

- 1 FRONT SHEET
- 2-3 STANDARD SYMBOL SHEETS
- 4 EXISTING IMPERVIOUS
- 5 PROPOSED IMPERVIOUS
- 6 PROPOSED IMPACTS
- 7 NATURAL WOODLAND BUFFER
- 8 EROSION CONTROL NOTES AND STRATEGIES
- 9 EROSION CONTROL PLAN

TOWN OF NOTTINGHAM
COUNTY OF ROCKINGHAM

SCALE: 1" = 30'

FOR CONSTRUCTION AND ALIGNMENT DETAILS - SEE CONSTRUCTION PLANS

GM2 Associates, Inc.
197 Loudon Road, Suite 310
Concord, NH 03301
Tel: 603-856-7854
Fax: 603-856-7855

NHDOT

THE STATE OF
NEW HAMPSHIRE
DEPARTMENT OF
TRANSPORTATION

RECOMMENDED FOR APPROVAL:

DIRECTOR OF PROJECT DEVELOPMENT

DATE

APPROVED:

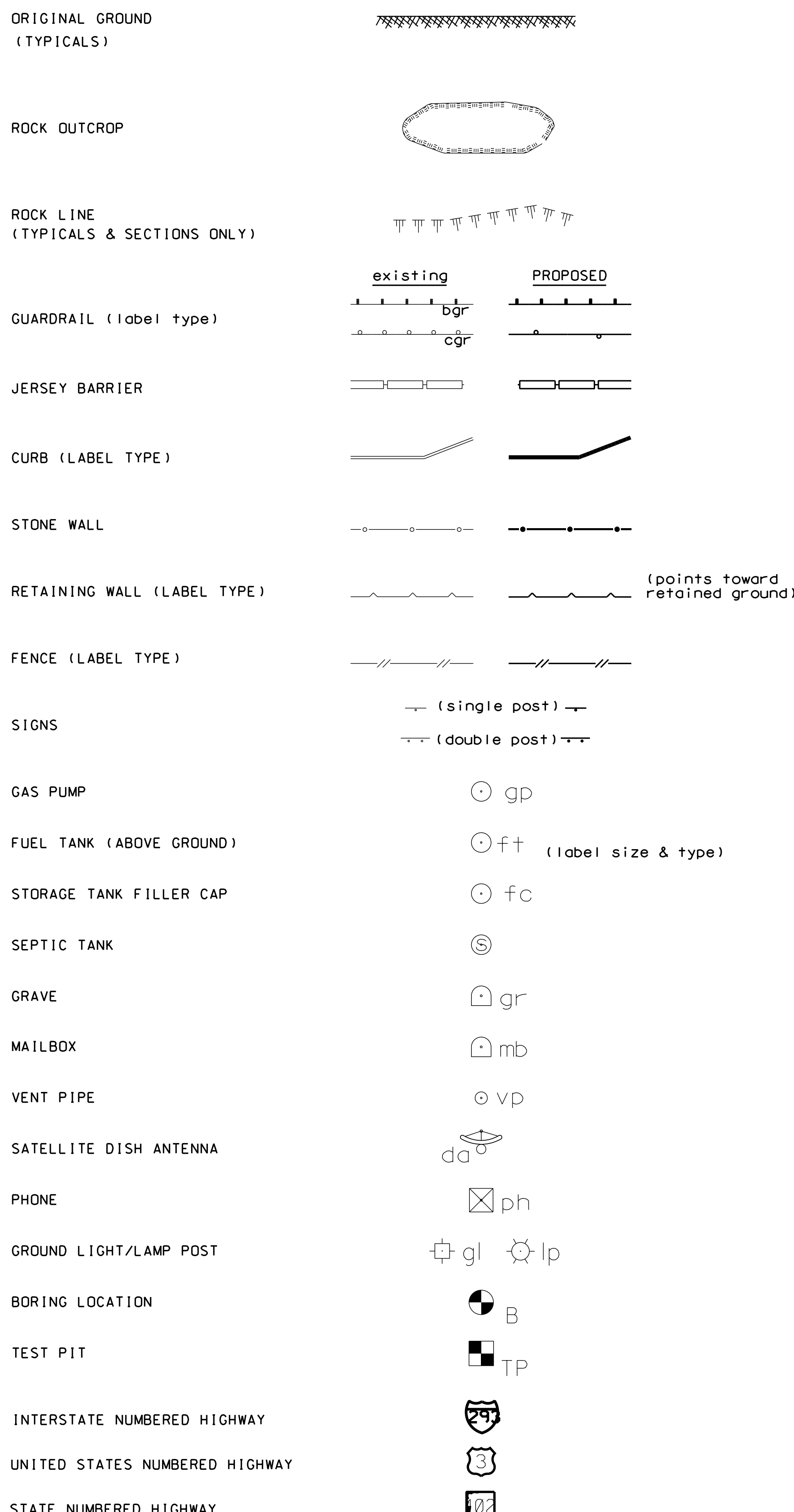
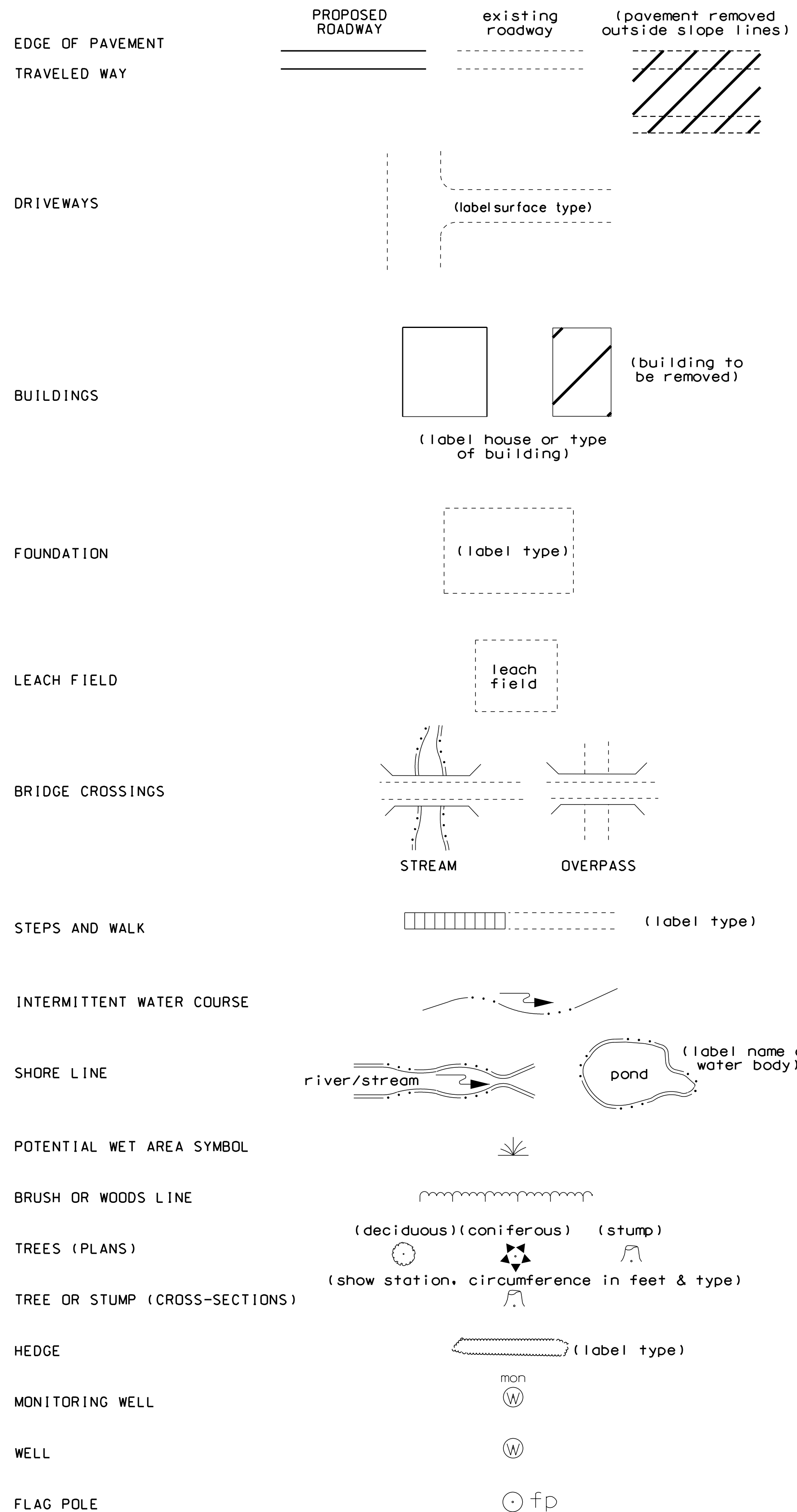
ASSISTANT COMMISSIONER AND CHIEF ENGINEER

DATE

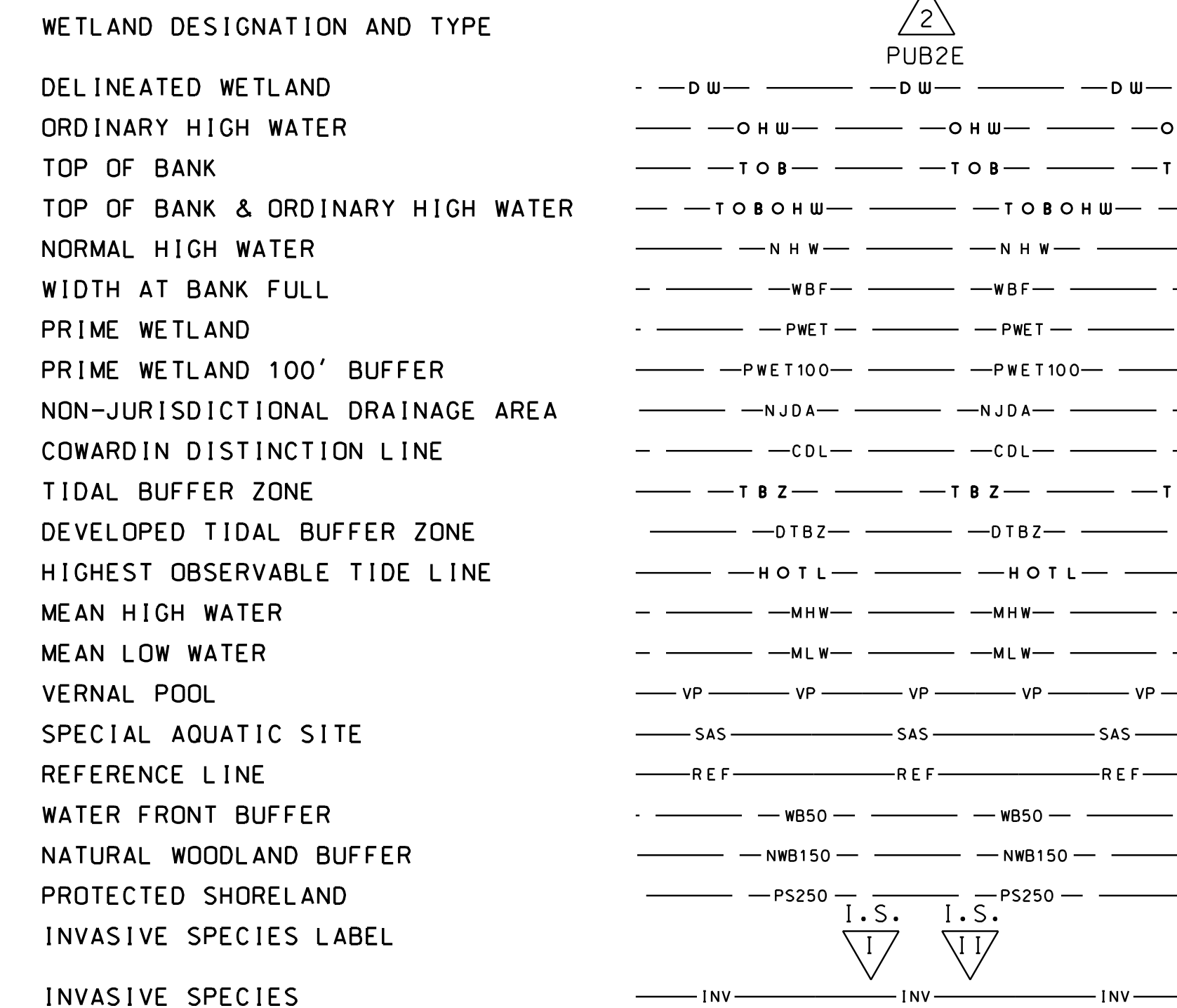
FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
--		1	9

DRAWN BY: C. SWEET DATE: 4/2/2024
CHECKED BY: J. MERCER DATE: 4/2/2024

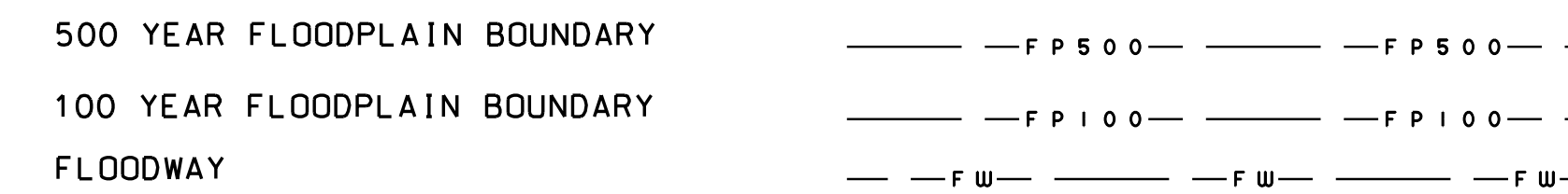
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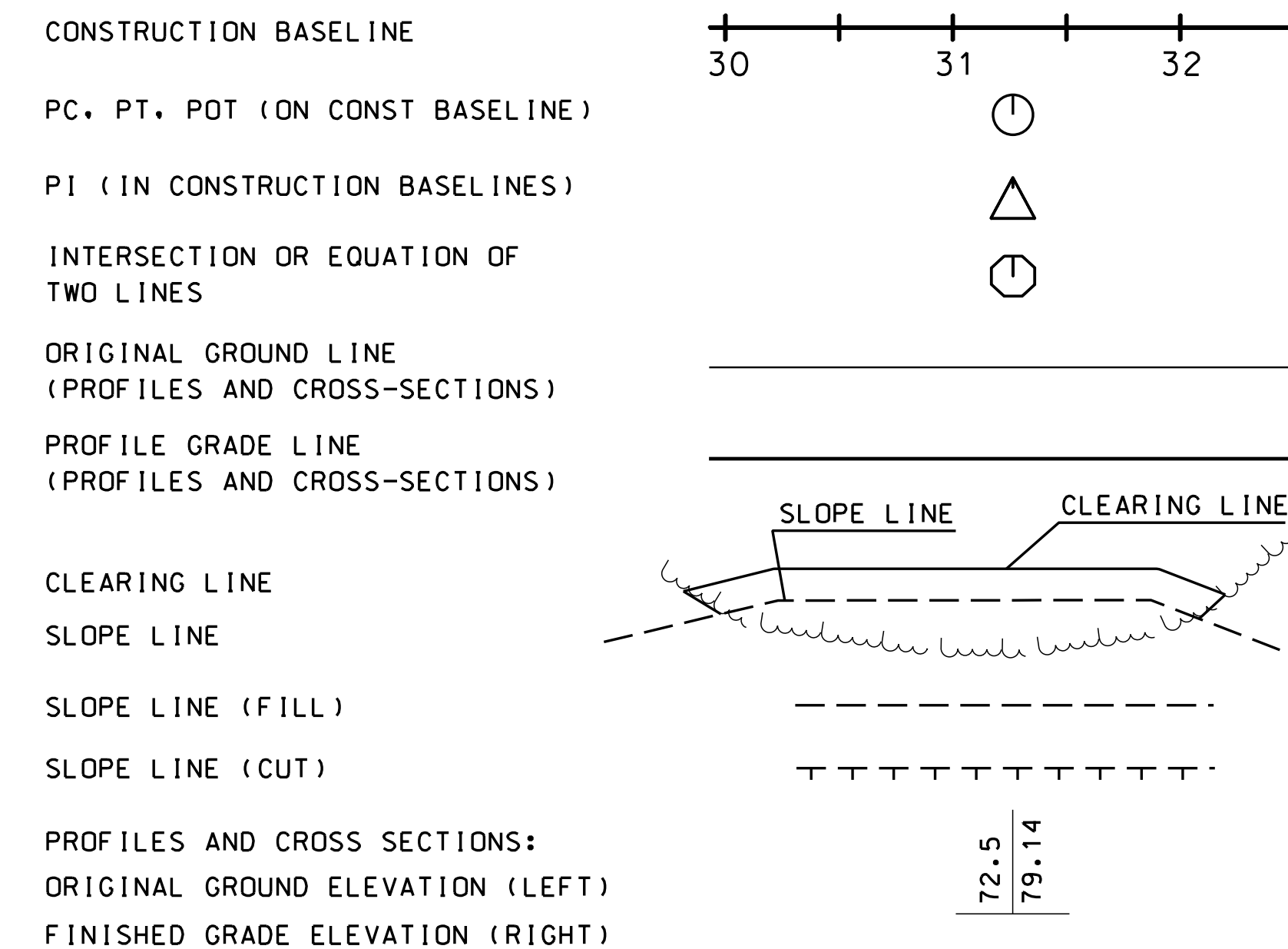
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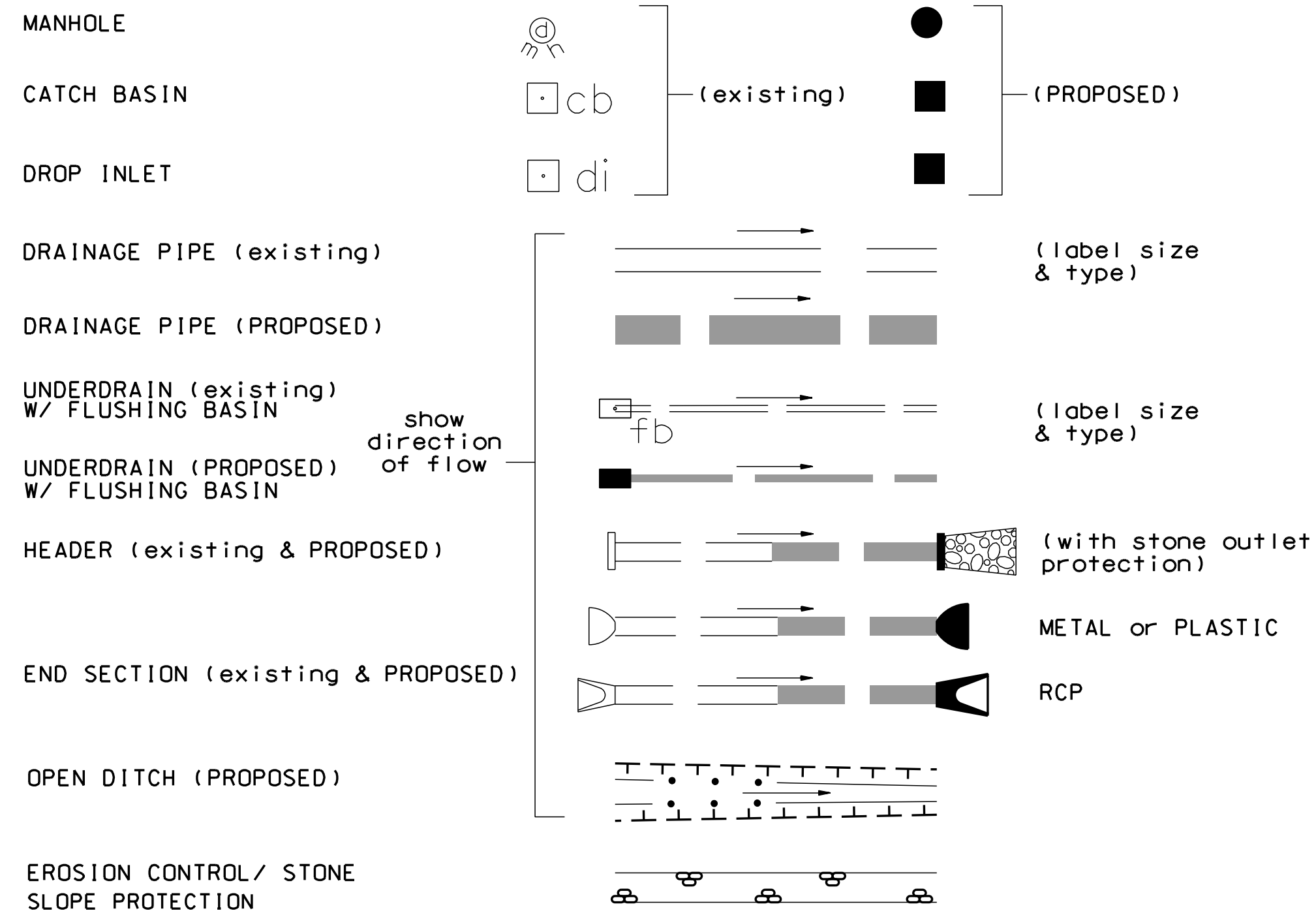
FLOODPLAIN / FLOODWAY



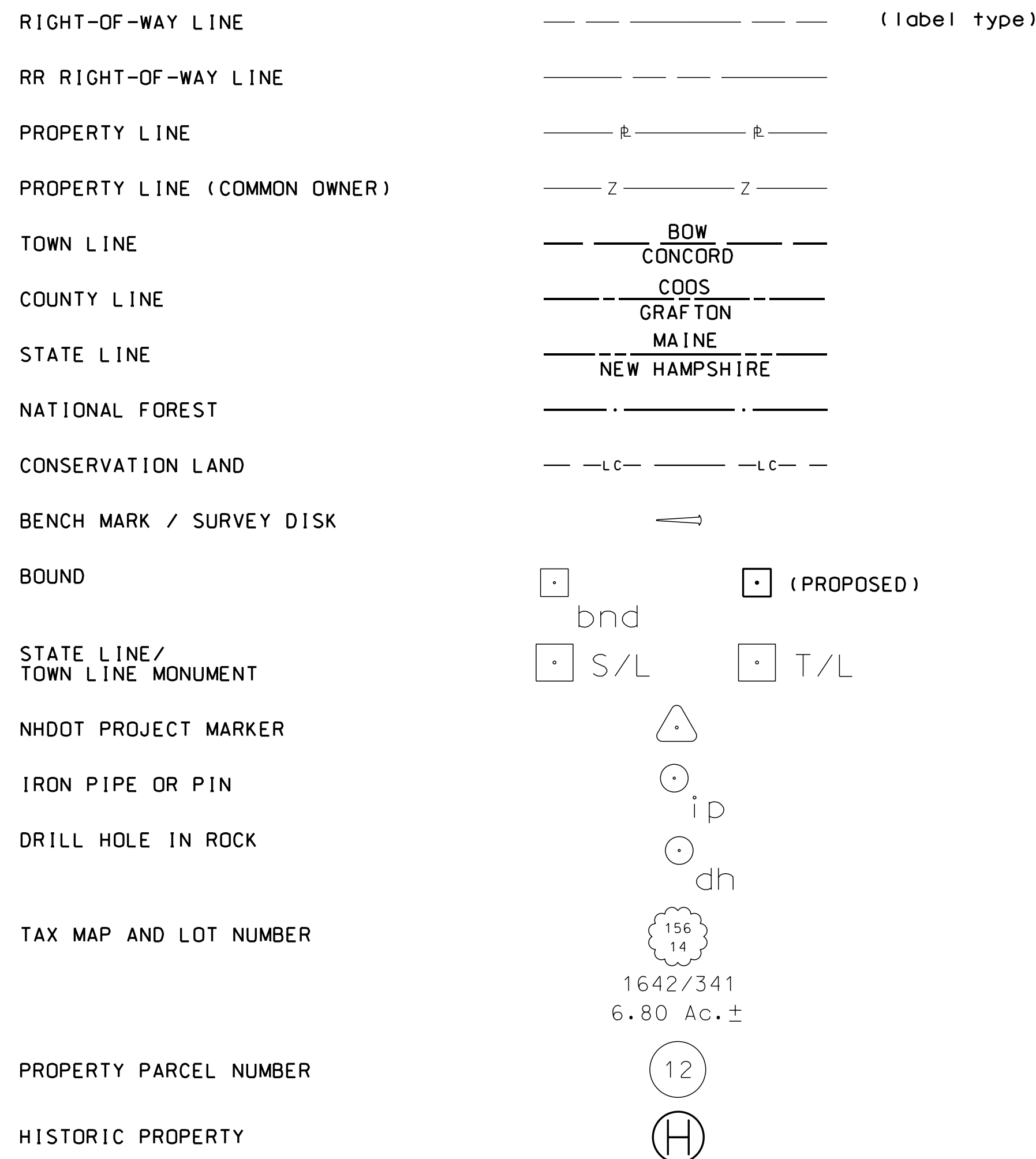
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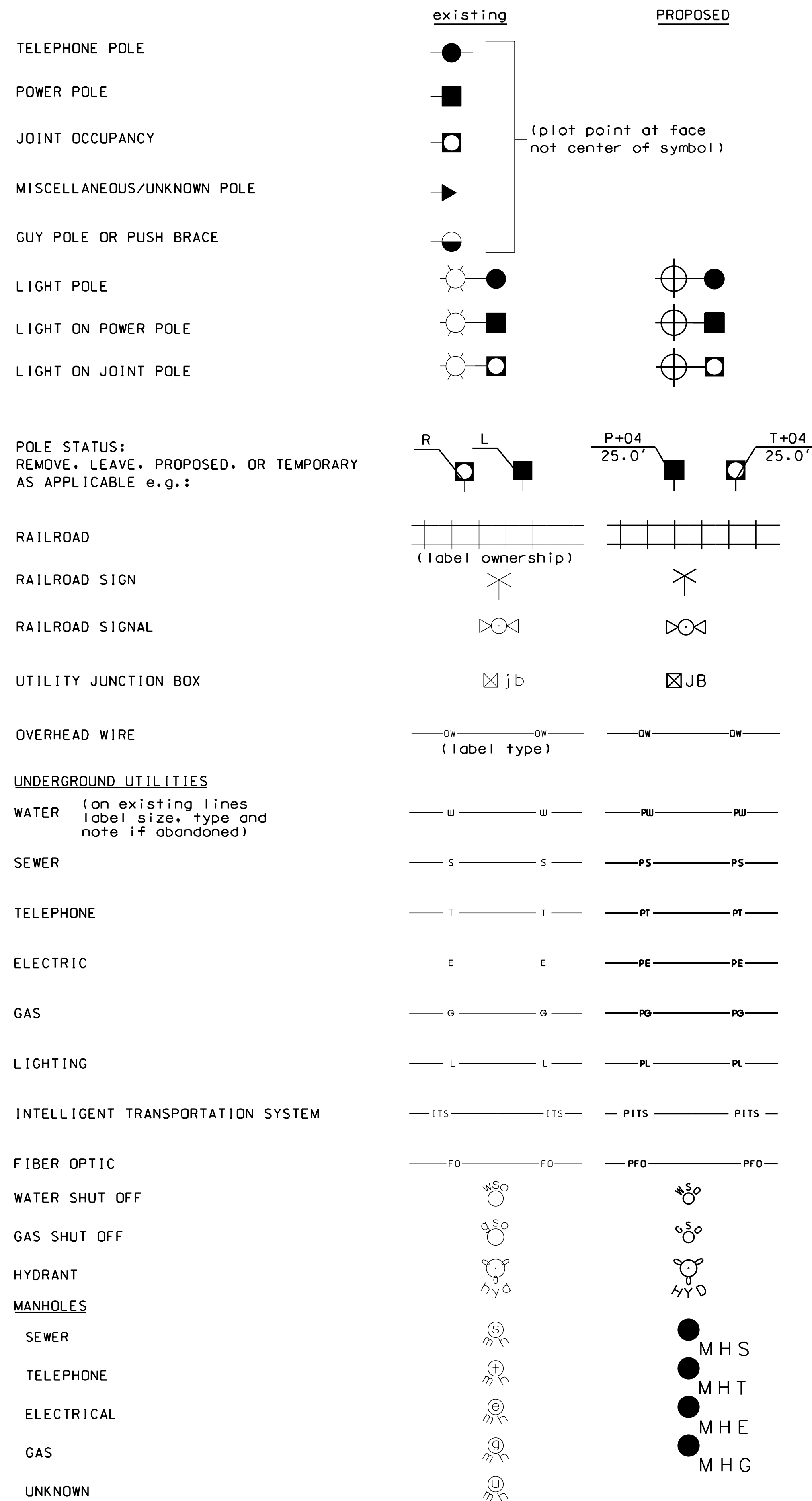
DRAINAGE



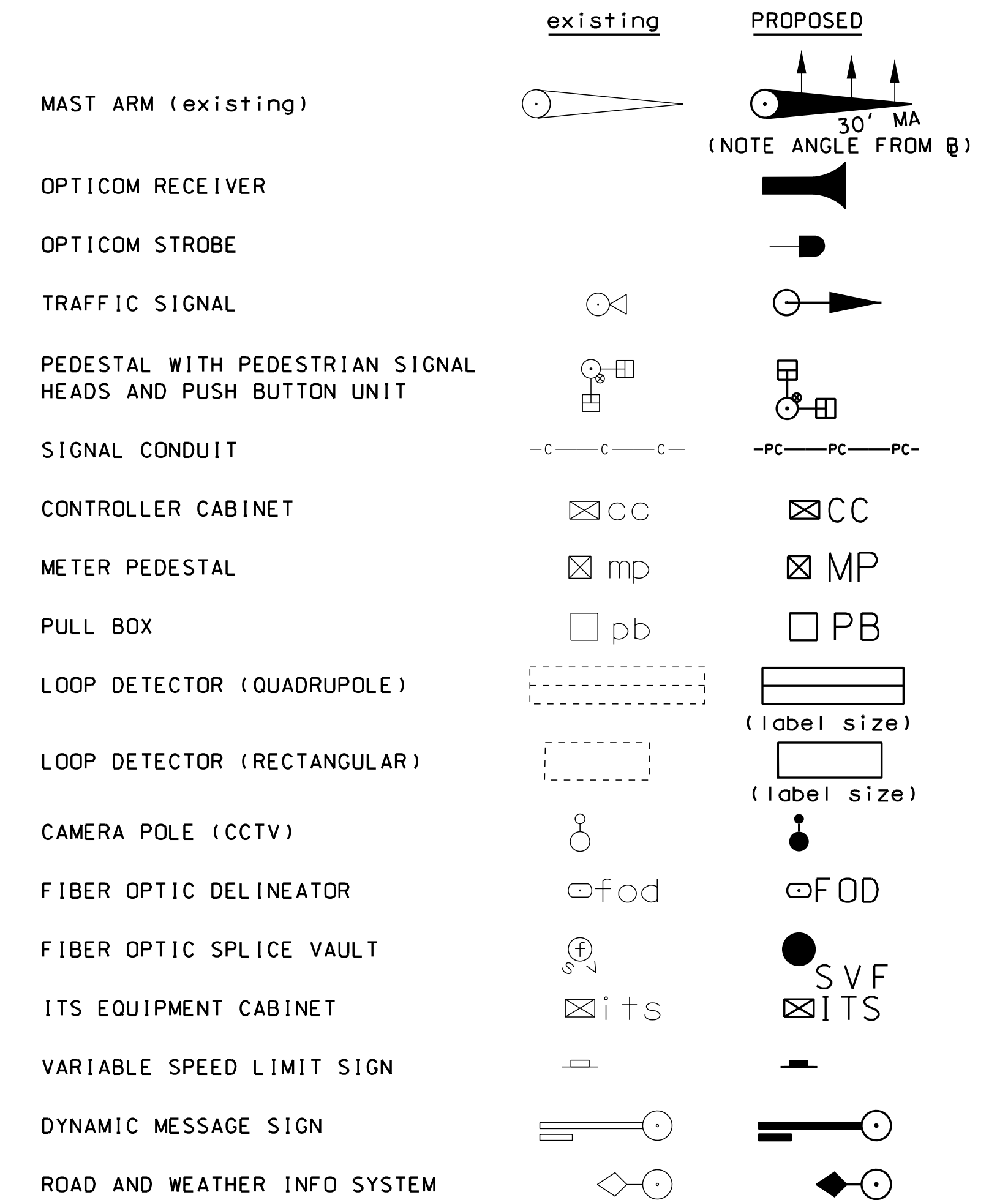
BOUNDARIES / RIGHT-OF-WAY



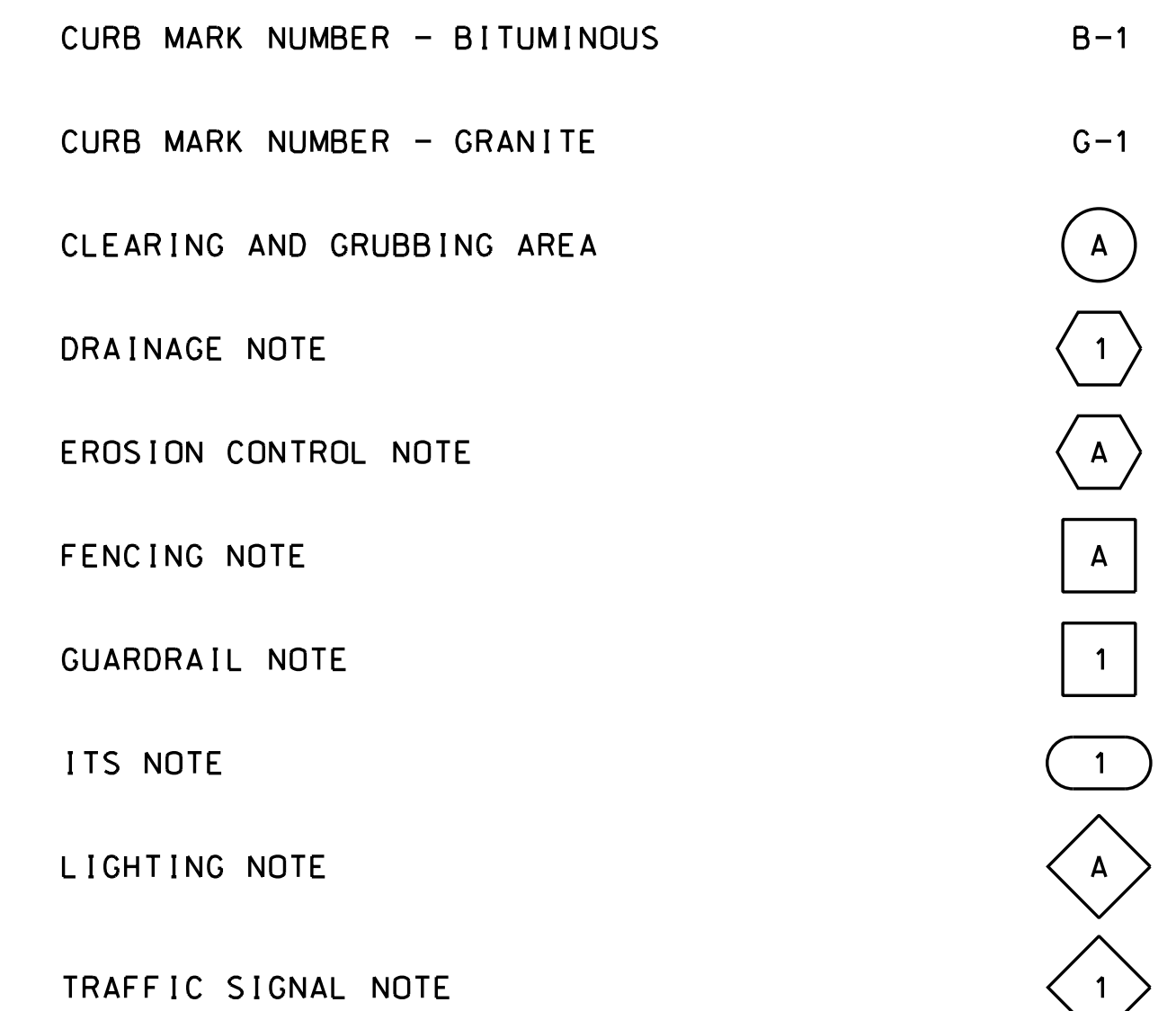
UTILITIES



TRAFFIC SIGNALS / ITS



CONSTRUCTION NOTES



SHEET 2 OF 2

STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
STANDARD SYMBOLS				
REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
9-1-2016	STDSYMB 2		3	9

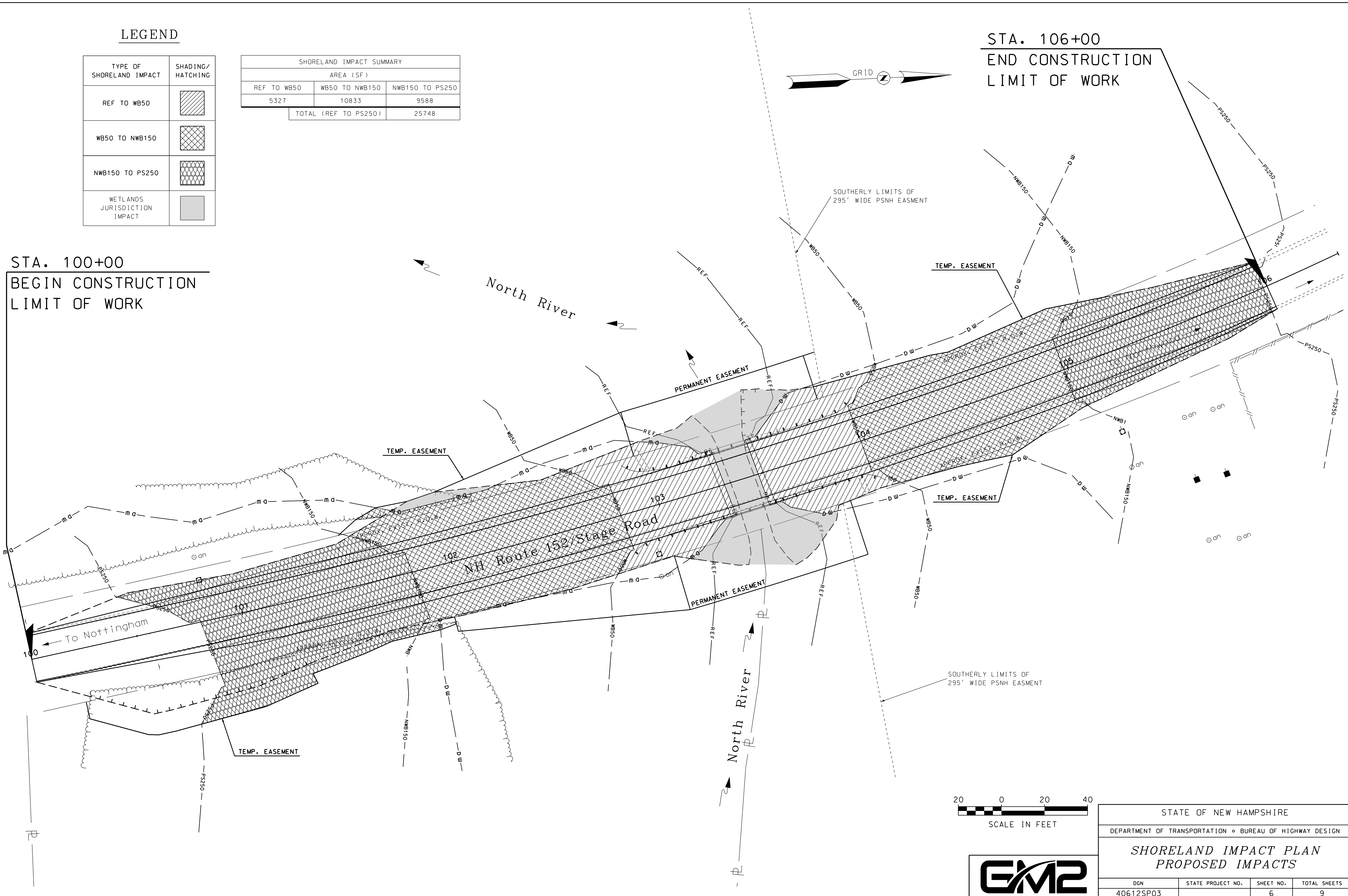
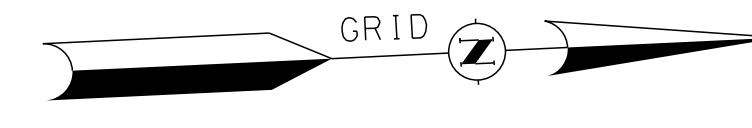
LEGEND

TYPE OF SHORELAND IMPACT	SHADING/HATCHING
REF TO WB50	
WB50 TO NWB150	
NWB150 TO PS250	
WETLANDS JURISDICTION IMPACT	

SHORELAND IMPACT SUMMARY		
AREA (SF)		
REF TO WB50	WB50 TO NWB150	NWB150 TO PS250
5327	10833	9588
TOTAL (REF TO PS250)		25748

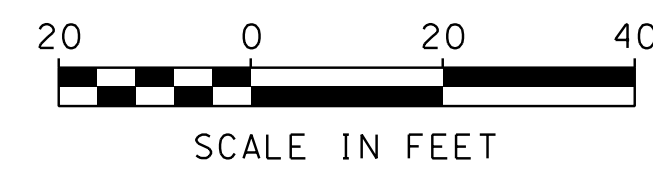
STA. 106+00
END CONSTRUCTION
LIMIT OF WORK

STA. 100+00
BEGIN CONSTRUCTION
LIMIT OF WORK



REVISIONS AFTER PROPOSAL	STATION	DATE	DESCRIPTION

SDR PROCESSED	C. SWEET	DATE	4/2/2024
NEW DESIGN	S. HILL	DATE	4/2/2024
SHEET CHECKED	J. MERCER	DATE	4/2/2024
AS BUILT DETAILS		DATE	

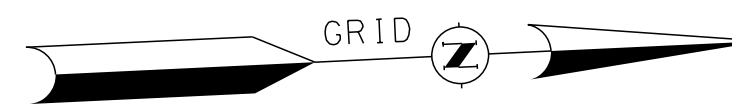


STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN			
SHORELAND IMPACT PLAN PROPOSED IMPACTS			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
40612SP03		6	9

LEGEND

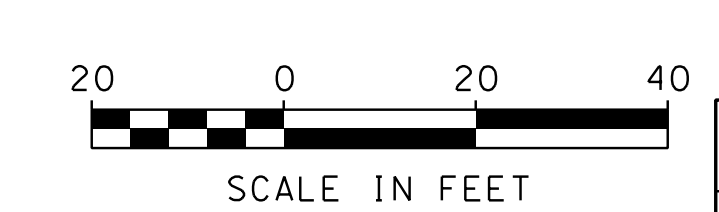
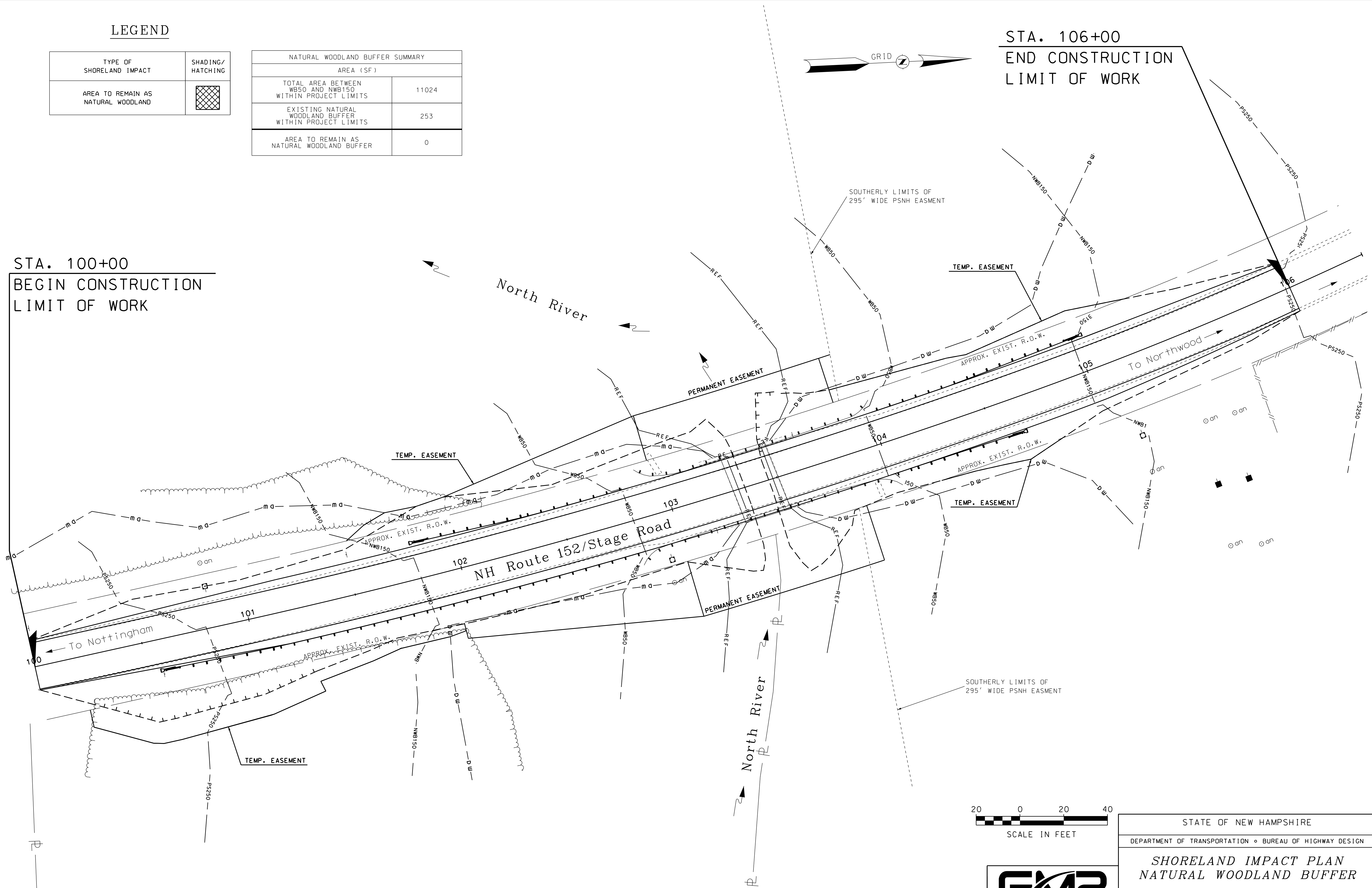
TYPE OF SHORELAND IMPACT	SHADING/HATCHING
AREA TO REMAIN AS NATURAL WOODLAND	

NATURAL WOODLAND BUFFER SUMMARY	
AREA (SF)	
TOTAL AREA BETWEEN WB50 AND NWB150 WITHIN PROJECT LIMITS	11024
EXISTING NATURAL WOODLAND BUFFER WITHIN PROJECT LIMITS	253
AREA TO REMAIN AS NATURAL WOODLAND BUFFER	0



STA. 106+00
END CONSTRUCTION
LIMIT OF WORK

STA. 100+00
BEGIN CONSTRUCTION
LIMIT OF WORK



SDR PROCESSED	C. SWEET	DATE	4/2/2024
NEW DESIGN	S. HILL	DATE	4/2/2024
SHEET CHECKED	J. MERCER	DATE	4/2/2024
AS BUILT DETAILS		DATE	

STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN			
SHORELAND IMPACT PLAN			
NATURAL WOODLAND BUFFER			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
40612SP04		7	9



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 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 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	YES ¹	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

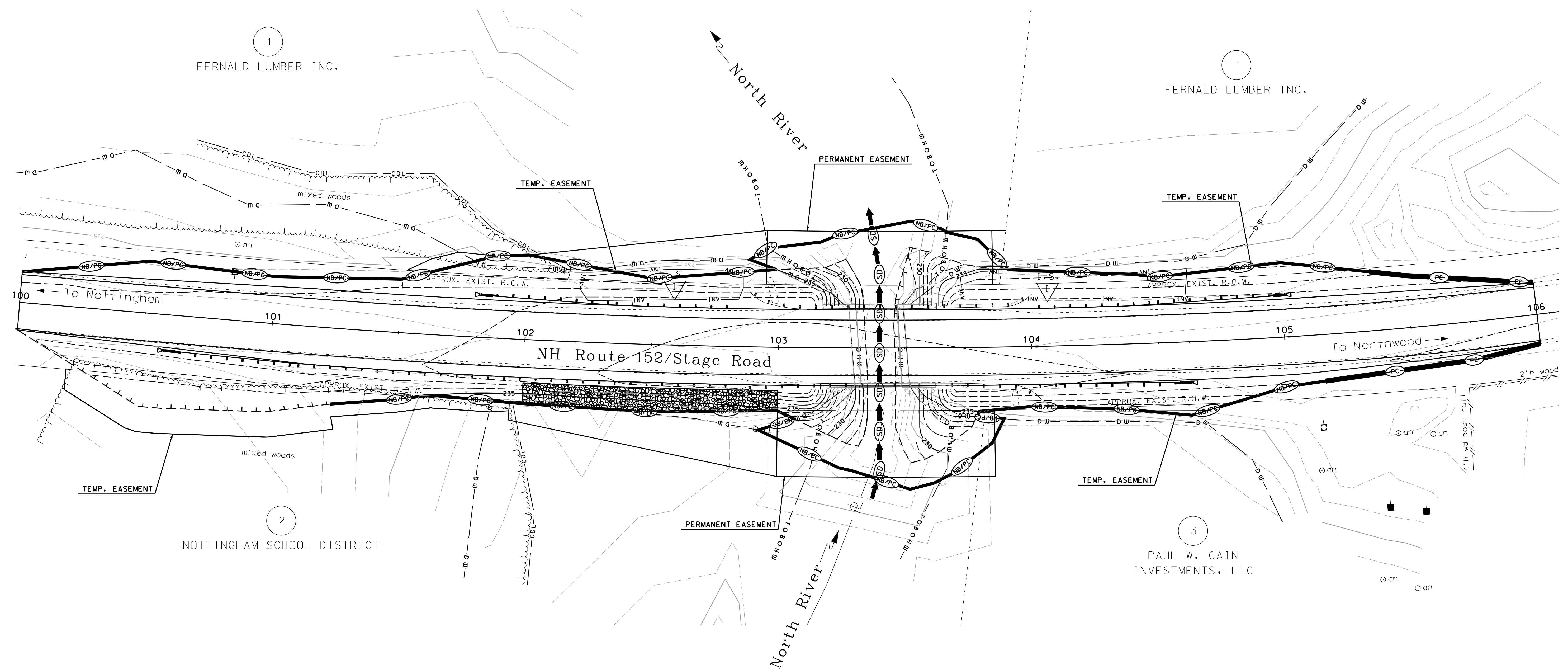
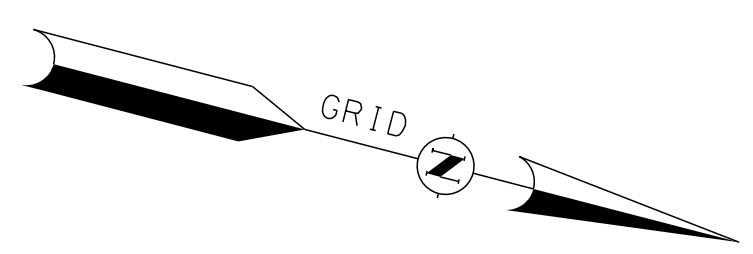
NOTES:

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.

SDR PROCESSED	C. SWEET	DATE	4/2/2024
NEW DESIGN	S. HILL	DATE	4/2/2024
SHEET CHECKED	J. MERCER	DATE	4/2/2024
AS BUILT DETAILS		DATE	

EROSION CONTROL PLAN LEGEND

	PERIMETER CONTROL SILT FENCE EROSION CONTROL MIX BERM EROSION CONTROL MIX SOX TURBIDITY CURTAIN SHEET PILE COFFER DAM
	NATURAL BUFFER/PERIMETER CONTROL SILT FENCE EROSION CONTROL MIX BERM EROSION CONTROL MIX SOX TURBIDITY CURTAIN SHEET PILE COFFER DAM
	STREAM DIVERSION



STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN			
EROSION CONTROL PLAN			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
40612EROC_Shore		9	9