



LEBANON CONSERVATION COMMISSION
MAY 13, 2021 - 6:30 PM
REMOTE VIA MICROSOFT TEAMS
LEBANONNH.GOV/LIVE

1. Call to Order

- A. Review of meeting procedures and NH RSA 91-A "Right-to-Know" requirements.

2. Approval of Minutes

- A. April 8, 2021

3. Permit Review

- A. **City of Lebanon** - Preliminary review and Comment on a draft NHDES Wetland Standard Dredge and Fill Application (Major Impact) associated with construction of a new multi-use path on Lahaye Drive, with a total of 18,642 s.f. of total permanent plus temporary wetland impacts on a 5.93-acre parcel owned by Dartmouth College, under preliminary agreement for easement, located at 0 Mount Support Road, Lebanon, Tax Map 10 Lot 24 Plot 200.

4. Study Items

- A. Review and Comment regarding proposed COL Tree Advisory Board

5. Committee Reports

- A. **Reports from other committees:**
--Conservation Lands Monitors (Various Members) (10 Minutes)
--Lebanon Biodiversity Group (D. Lacey) (10 Minutes)
--Workshops & Educational Opportunities (Various Members) (10 Minutes)

6. Other Business

7. Future Agenda Items

- A. None

8. Open to the Public

9. Adjournment

The order of agenda items is subject to change.

Due to the current situation with the COVID-19 Pandemic, the City of Lebanon is offering its meetings via Microsoft Teams. Members of the public are encouraged to attend by going to LebanonNH.gov/Live where you will find instructions on how to enter the meeting. Members of the public will be able to participate and ask questions through the Microsoft Teams software or by phone. Please visit LebanonNH.gov/Live for full details.

THE AGENDA, IN ITS ENTIRETY IS AVAILABLE ON THE CITY'S WEBSITE AT LEBANONNH.GOV

**Agenda
Conservation Commission
May 13, 2021**

**Agenda Item #2A
Approval of Minutes**

APRIL 8, 2021

DRAFT

**LEBANON CONSERVATION COMMISSION
REGULAR MEETING MINUTES
Remote Via Microsoft Teams
[LebanonNH.gov/Live](https://lebanonnh.gov/live)
Thursday, April 8th, 2021
6:30 PM**

MEMBERS PRESENT: Ernst Oidtmann (Chair), Sarah Riley (Vice Chair), Erling Heistad, Bruce James, Donald Lacey, Chris Johnson, Barbara Hirai (Alt.), Darla Bruno (Alt.)

MEMBERS ABSENT: Susan Almy, Suellen Balestra (Alt.)

STAFF PRESENT: Mark Goodwin (GIS Coordinator)

1. CALL TO ORDER – Chair Oidtmann called the meeting to order at 6:32 PM

- Mr. Mark Goodwin reviewed the meeting procedures for remote meetings and NH RSA 91-A “Right to Know” requirements. A Roll Call of Commission Members who participated remotely are listed above.
- Chair Oidtmann appointed Darla Bruno as a regular voting member in place of Susan Almy.

The Conservation Commission took the meeting agenda out of order by taking agenda item 4A. before 1B and 2A.

3. PERMIT REVIEW: None

4. STUDY ITEMS:

A. Proposed Recreation Use for Two Rivers Conservation Area: Mr. Coats gave an update as to what had gone on behind the scenes such as reviewing deeds and covenants. They now have a better understanding of the wetland mitigation projects, which there are two of. One dates back quite a few years and had the most protections around it. It affected the meadow area on the north end of the property. That would change one of the fields that was presented to the Conservation Commission in the last meeting. It would bring the project down from 3 fields to 2 fields and would condense the project to the parts of the property that are less sensitive.

Mr. Coats also had a quick conversation with the Upper Valley Land Trust and received an email from Jason Berard that basically said that the Land Trust’s role was to review a proposal when there was one to make sure the proposal would be consistent with the easement. They said other departments may want to review the proposal for other aspects. The email went on to say that the Upper Valley Land Trust did not wish to insert their own land ethic into the discussion. They also suggested reviewing how the project could affect the transient population. They politely declined the opportunity to attend tonight’s meeting.

Mr. James said since the last meeting he had done some research on the soils at Two Rivers Conservation Area. He participated in a site walk through with Mr. Ron Bailey, Chair Oidtmann and Vice Chair Riley. The soil at Two Rivers Conservation Area is comprised of fluvial material (flood plain material of the

1 Mascoma River) and goes by the name of Suncook. Mr. James explained that water perks through the
2 soil very rapidly when the water table is low enough. It is also prone to flooding; it is very sandy and
3 very permeable. The vegetation on the land was very common around the area, all the way along the
4 Connecticut river. Mr. James went on to explain that the Natural Resources Conservation Service puts
5 out information about soils and the potential and limitations of soils in different areas. He said they listed
6 playgrounds as a very limited use for the Two Rivers Conservation Area's soil type and speculated that it
7 may be because of flooding.

8
9 Mr. James also said that Mr. Bailey told him that the US Army Core of Engineers has some restrictions
10 placed on the area in question for flood water storage for the Mascoma River. That was information that
11 Mr. James felt the Commission would need more details on. Mr. James also pointed out that when he
12 was touring the property, he noticed a lot of piles of asphalt and wondered if the property would be
13 considered a hazardous materials dumpsite. He felt that the project needed to be looked at in a more
14 comprehensive way. Mr. James continued to explain his thoughts and suggestions about the property.

15
16 Mr. Heistad asked Mr. Coats if they had looked at the land on the north side of the Mascoma river? Mr.
17 Coats said they have considered that area and have shied away from pursuing it for two main reasons.
18 One reason was that the net gain of a field there still would not meet their needs for fields. He went on to
19 say that they were thinking about the land in conjunction with Two Rivers Conservation Area and the
20 possibility of conserving some of that land in addition to the proposed project. He went on to suggest
21 some potential projects that could be done on the property north of the Mascoma river. Mr. Heistad said
22 if they could work together to make that a part of the Two Rivers Conservation Area project, he thought it
23 would be a big plus all the way around.

24
25 Ms. Bruno said her concern was that if trees were removed and the land flattened out at Two Rivers
26 Conservation area, it would cause a bigger flood risk for the businesses there. She said the ground could
27 possibly get more compacted from the fields being used. She thought that was a consideration to make.
28 She also said she did not see evidence of the other playing fields in the City being used to their fullest.
29 She said behind where she lived there was a baseball field, she did not think was used a lot.

30
31 Ms. Hirai pointed out that the name of Two Rivers was Two Rivers Conservation Area, not Two Rivers
32 Park. She said that the name was important because she felt that changed the way people looked at the
33 property.

34
35 Vice Chair Riley said she though Ms. Hirai and Ms. Bruno said a lot of what was on her mind. She said
36 the primary purpose and responsibility of the Conservation Commission was to conserve and protect the
37 City's natural resources. The second responsibility was for them to manage flood waters. For that
38 reason, she did not think putting in more pavement in that area was a good idea. She thought putting
39 fields in there was the wrong way to go. She would gladly collaborate on passive recreation and
40 improving the trail network, including passive recreation on the north shore as well, but not clearing trees
41 on the land.

42
43 Mr. Lacey said that when the project was first presented, he thought it was a possibility of a win-win
44 situation. Since then, he has been on a walk with Mr. Bailey and had more time to think about the
45 proposal. He pointed out the forest of trees on the property and thought it would be totally inappropriate
46 to cut down those trees for the playing fields. He said he had changed his view and did not think playing
47 fields were a good idea for Two Rivers Conservation Area.

1 Mr. Johnson said that in the fall, the Conservation Commission talked a lot about conserving land, and he
2 felt that Two Rivers Conservation Area was already property that had been conserved. As one of the few
3 places in Lebanon to have that honor, he did not want to see the land developed at all.

4
5 Mr. Coats responded to the comments made by the Commission members. He said he could provide data
6 if the Commission wanted it on the use of the fields that the City of Lebanon owned. He went on further
7 to say that the baseball fields were used every single day, except for Sundays, during baseball season.
8 They are not completely used in the summertime, but they were used. The Recreation Department try not
9 to overuse the fields in the summertime. Currently there is no relief in site for the protection of the fields.
10 He explained that the Recreation Department was a progressive Recreational Department that encouraged
11 kids and families to explore and learn how to take part in other recreational activities such as hiking,
12 running, kayaking, and rock climbing. Traditional sports in the City of Lebanon were alive and active
13 and the Recreational Department, currently, is not able to keep up with the demands on the fields. He
14 worried about the longevity and care of the fields. He thought a holistic approach was needed to look at
15 the overall needs of the community. Mr. Coats continued to explain ideas he had to continue this
16 discussion with the Commission.

17
18 Mr. Lacey asked if there was any chance that the Recreational Department could purchase land to be used
19 for fields? Mr. Coats said they had explored different areas where land could possibly be purchased. He
20 said they would need to be sitting on a significant amount of money to purchase land when it came up for
21 sale.

22
23 Vice Chair Riley asked about the Iron Horse developers, the land that abutted the fields on Seminary Hill?
24 She asked if the City had spoken to anyone about buying land from them? Mr. Coats said they have
25 approached the owners of the property and the developers about a couple of different things but there has
26 not been much response to the City.

27
28 Chair Oidtmann said he read the deed and it referred to one playing field. He thought there were
29 environmental and legal issues that would need to be surmounted to pursue the field creation at Two
30 Rivers Conservation Area.

31
32 Ms. Joan Monroe, member of the public, said she had heard a lot of good information. She made several
33 comments about the animals and birds in the area and thought that the hazardous material that was on the
34 property should not be disturbed since it looked like nature was doing its job reclaiming the land. She
35 said she believed that removing invasive species without planting something that you do want there
36 would only allow the invasive species to grow back again.

37
38 Ms. Monroe asked about the exercise trail at the base of Storrs Hill? Is that trail not be kept up and used?
39 Mr. Coats said it was a Boy Scout project from years ago. Ms. Monroe said that she thought the City
40 should get something legal in writing to use the athletic fields next to the old junior high school. She also
41 said she thought there could be potential recreation use at some of the larger companies in the City who
42 may not need as much room as they once thought they did since more employees were working from
43 home now. Mr. Coats said that it has been the City's priority to try to get the old junior high fields legally
44 available to the Recreation Department, but it was not a simple task. Even if those fields were made into
45 City property it still did not address the issue at hand.

46
47 Ms. Bruno said she would like to have Mr. Bailey's input on the property.

Mr. Coats said that the K-Mart Plaza landowner seemed open to the idea of playing fields out back and shared parking on the plaza side of the property line. They liked the idea of the property being worked on and spoke of his concerns of the encampments on the Two Rivers Conservation Area.

Mr. Goodwin said the Commission did not have to take any formal action on this idea that had been presented. His observation was that the Conservation Commission has said no to the project.

2. APPROVAL OF MINUTES: March 11th, 2021

Mr. Heistad MOVED to approve the March 11th, 2021 Minutes as amended and presented in the April 8th, 2021 agenda packet.

Seconded by Ms. Riley.

Amendments:

Change any reference to Two Rivers to Two Rivers Conservation Area.

Remove the “e” from Mr. Coats name throughout the minutes.

Page 2, Line 40 Change “was playing fields” to “a playing field”

Page 3, Line 39 Change “convenance” to “covenants”

Page 5, Line 1 Remove the hyphen between eco system

Page 6, Line 22 Change “endorsed” to “encouraged”

Page 6, Line 24 Change “city” to “City”

Roll Call Vote:

Ernst Oidtman, Erling Heistad, Chris Johnson, Sarah Riley, Donald Lacey, Bruce James, and Darla Bruno all voting Yea.

None voted Nay.

*** The Vote on the MOTION was approved (7-0).**

1. CALL TO ORDER CONT.:

1B. Election of Officers-Chair and Vice Chair: Mr. Goodwin said that they would be holding the election of officers tonight, but that they would move the election of officers to January next year to be in line with all the other groups that meet.

Mr. Heistad nominated Ernst Oidtman for Chair and Mr. Lacey seconded. Chair Oidtman nominated Sarah Riley for Chair. Ms. Riley said she would not take the Chair position without Mr. Oidtman rejecting his nomination. Chair Oidtman said he would serve one more year if elected. Vice Chair Riley turned down Chair Oidtman’s nomination.

Roll Call Vote:

Erling Heistad, Chris Johnson, Sarah Riley, Donald Lacey, Bruce James, and Darla Bruno all voting Yea.

None voted Nay.

*** The Vote on the Nomination was approved (6-0).**

1 **Chair Oidtman nominated Sarah Riley for Vice Chair.**
2 **Mr. Heistad seconded.**

3
4 **Roll Call Vote:**

5 **Ernst Oidtman, Erling Heistad, Chris Johnson, Donald Lacey, Bruce James, and Darla Bruno all**
6 **voting Yea.**

7 **None voted Nay.**

8 *** The Vote on the Nomination was approved (6-0).**
9

10 Mr. Goodwin said he would make sure the Rules of Procedures were updated to reflect that the elections
11 would take place in January from now on.
12

13 **4. STUDY ITEMS CONT.:**
14

15 **B. Volunteer Program Update:** Ms. Hirai said they were getting volunteers to work on the trails
16 including Chambers Park and two volunteers at Boston Lot. She hoped that when they started getting
17 volunteers for the Stewardship program that more projects would be done on the properties.
18

19 Vice Chair Riley went over the new volunteer web page. She explained that there was a place for people
20 who were on the trails to fill out an incident report of any issues that they may find. The public did not
21 have to sign up as a volunteer to do that.
22

23 Vice Chair Riley showed the Commission the volunteer sign-up form and went through the steps to fill
24 out the form. She also explained what each volunteer position was expected to do. She said that they
25 were trying to get people to sign up for the Stewardship positions. She also explained that the double
26 asterisk pointed out that a trail had at least 2 stewards working on a trail, already. The Commission asked
27 that the Stewardship position produce a report twice a year on the trail they were responsible for and to
28 walk the trails after major weather events to see if any maintenance would need to be done on the trail.
29

30 Ms. Hirai said they were currently sending out welcome letters to the new volunteers. Discussion was
31 had among Commission members on the volunteer program. Vice Chair Riley also went over the trail
32 assessment form that the volunteers would be asked to fill out. They were also encouraging the
33 volunteers to send in any photos they may feel would be helpful of the work they did or an issue that they
34 may have discovered. Discussion was also had among the Commission members about if there would be
35 identification given to the volunteers. Mr. Johnson thought the Commission members also should have
36 some sort of identification card.
37

38 **5. OTHER BUSINESS:**
39

40 Chair Oidtman asked Mr. Goodwin if there was any news on the Current Use money. Mr. Goodwin said
41 the Accounting Department was planning on doing a report semi-annually.
42

43 Chair Oidtman reminded everyone that there would be a bog bridge building day on Saturday, May 29th,
44 2021 at Boston Lot. The trail they would be working on was the Lakeside Trail, going clockwise starting
45 at the dam, heading northeast.
46

47 Vice Chair Riley said she was hoping there could be a clean up at Star Hill. She said there was a resident
48 abutter who showed interest in cleaning up waste that had been dumped at the Eldridge Street trail head.

1 **6. ADJOURNMENT:**

2

3 **The meeting was adjourned at 9:00 PM.**

4

5 Respectfully submitted,

6 Barbara R. Higgins

7 Recording Secretary

**Agenda
Conservation Commission
May 13, 2021**

**Agenda Item #3A
Permit Review**

**City of Lebanon
0 Mount Support Road,
Tax Map10, Lot 24, Plot 200**



May 5, 2021
624260

Ernst Oidtmann, Chair
City of Lebanon Conservation Commission
Via email, c/o Mark Goodwin, Planning & Development: mark.goodwin@lebanonnh.gov

Dear Mr. Oidtmann,

The City of Lebanon proposes to construct a 10'-wide multi-use path along the north side of Lahaye Drive between Mt. Support Road and NH Rt. 120. Attached please find a DRAFT Standard Dredge and Fill Wetlands Application for the project, for preliminary review by the Conservation Commission. Note that the details of compensatory mitigation will need to be filled in following our coordination with the Commission.

The project involves the construction of approximately 950 linear feet of a 10'-wide bituminous pathway adjacent to Lahaye Drive between Mount Support Road and NH Route 120, with reconstructed curb ramps and drainage improvements. The project also includes minor improvements to the existing intersection of Lahaye Drive and NH RT 120, including curb, crosswalk, median and signal work within the intersection.

The project is intended to connect to the existing sidewalk along Mount Support Road south of the project area, and to the existing sidewalk along Centerra Parkway to the east of the project area, as well as to future facilities anticipated to the west on Lahaye Drive and north on Mount Support Road. A preliminary study was performed which found that wetland impacts along alternative alignments on the north and south sides of Lahaye Drive would not differ significantly in wetland impacts. Therefore, the northern alignment was chosen, as it is a better fit with existing infrastructure. The chosen alignment will be immediately adjacent to the north side of Lahaye Drive, thus minimizing wetland impact and preventing wetland fragmentation. Wetland impacts were further minimized by the use of headwalls at culvert outlets. The hydraulic connections into and out of the wetland on the north side of Lahaye Drive are maintained by the extension of existing culverts. The total of permanent plus temporary impacts to the wetland is 18,642 SF, as shown on the Wetland Impacts Plan in the application package.

The Natural Heritage Bureau has no records of rare, threatened or endangered species or significant natural communities in the vicinity of the project. The USFWS IPaC review indicates the potential presence at the project area (as for the entire state) of the Federal Threatened Northern Long-Eared Bat. A Consistency Letter from the USFWS (included in the application package) indicates that cutting of potential roost trees in the bats' non-active season may affect, but is not likely to adversely affect, the species.

No stream crossing, priority resource areas, prime wetlands, highest ranking wildlife habitat, or Section 106 historic or archeological resources are involved. Aside from City land, there will be impacts on Dartmouth College land. The College is in favor of the project.

Project demarcation fencing will limit construction activities to the area required to accomplish the work, and silt fence will be installed along the edge of the project before commencement of construction, will be

maintained during construction, and will be removed following establishment of permanent erosion control measures.

The project will likely need to be submitted for a Special Exception from the Zoning Board of Adjustment Review under Zoning Criteria Section 401.5 A-G.

Because of the size of the impact, the City must provide compensatory mitigation. Per the NH Wetland Rules, we are hereby requesting recommendations from the Conservation Commission regarding potential mitigation sites that you might know of within the City.

We will be happy to make a presentation to the Conservation Commission at your next meeting on May 13. Meanwhile, if you have any questions or comments, please do not hesitate to contact me at cbrodie@dubois-king.com, or by telephone at 802-777-5272. We look forward to coordinating with you on this project.

Very truly yours,



Charlotte Brodie
Field Naturalist

Lahaye Drive Multi-Use Path
NHDES Wetlands Application Table of Contents

1. Wetlands Application Form
2. Wetlands Application Attachment A
3. COE Appendix B Checklist
4. Avoidance and Minimization Checklist
5. COE Functions and Values Evaluation Form
6. Functions Assessment Worksheet
7. Section 106 clearance
8. USGS Location Map
9. Tax map
10. Photo Exhibit
11. Wetland Impacts Plan
12. GRANIT map
13. NHB DataCheck Tool Results
14. USFWS IPaC NLAA Documentation Letter
15. NOAA Fisheries ESA Mapper Results
16. Highest Ranked Habitat Map
17. Wildlife and Vegetation Diversity Lists
18. Landowner (Dartmouth College) Agreement with Project
19. Preliminary Project Plans, 2021-01-07
20. NH Wetlands Project Planning Tool Map



**STANDARD DREDGE AND FILL
WETLANDS PERMIT APPLICATION**
Water Division/Land Resources Management
Wetlands Bureau
[Check the Status of your Application](#)



RSA/Rule: RSA 482-A/Env-Wt 100-900

APPLICANT'S NAME: City of Lebanon, Rebecca Owens TOWN NAME: Lebanon

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

A person may request a waiver of the requirements in Rules Env-Wt 100-900 to accommodate situations where strict adherence to the requirements would not be in the best interest of the public or the environment but is still in compliance with RSA 482-A. A person may also request a waiver of the standards for existing dwellings over water pursuant to RSA 482-A:26, III(b). For more information, please consult the [Waiver Request Form](#).

SECTION 1 - REQUIRED PLANNING FOR ALL PROJECTS (Env-Wt 306.05; RSA 482-A:3, I(d)(2)) Please use the Wetland Permit Planning Tool (WPPT) , the Natural Heritage Bureau (NHB) DataCheck Tool , the Aquatic Restoration Mapper , or other sources to assist in identifying key features such as: priority resource areas (PRAs) , protected species or habitats , coastal areas, designated rivers, or designated prime wetlands.	
Has the required planning been completed?	☒ Yes ☐ No
Does the property contain a PRA? If yes, provide the following information: - Does the project qualify for an Impact Classification Adjustment (e.g. NH Fish and Game Department (NHF&G) and NHB agreement for a classification downgrade) or a Project-Type Exception (e.g. Maintenance or Statutory Permit-by-Notification (SPN) project)? See Env-Wt 407.02 and Env-Wt 407.04. ☐ Yes ☒ No - Protected species or habitat? - If yes, species or habitat name(s): ☐ Yes ☒ No - NHB Project ID #: ☐ Yes ☒ No - Bog? ☐ Yes ☒ No - Floodplain wetland contiguous to a tier 3 or higher watercourse? ☐ Yes ☒ No - Designated prime wetland or duly-established 100-foot buffer? ☐ Yes ☒ No - Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone? ☐ Yes ☒ No	
Is the property within a Designated River corridor? If yes, provide the following information: - Name of Local River Management Advisory Committee (LAC): - A copy of the application was sent to the LAC on Month: Day: Year:	☐ Yes ☒ No

irm@des.nh.gov or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

www.des.nh.gov

For dredging projects, is the subject property contaminated? • If yes, list contaminant:	☐ Yes ☒ No
Is there potential to impact impaired waters, class A waters, or outstanding resource waters?	☐ Yes ☒ No
For stream crossing projects, provide watershed size (see WPPT or Stream Stats): N/A	
SECTION 2 - PROJECT DESCRIPTION (Env-Wt 311.04(i)) Provide a brief description of the project and the purpose of the project, outlining the scope of work to be performed and whether impacts are temporary or permanent. DO NOT reply "See attached"; please use the space provided below.	
The proposed project will construct approximately 950 linear feet of pathway adjacent to Lahaye Drive between Mount Support Road and NH Route 120. Scope of work includes construction of new 10' bituminous multi-use path, reconstructed curb ramps and drainage improvements. The project also includes minor improvements to the existing intersection of Lahaye Drive and NH Rt 120, including curb, crosswalk, median and signal work within the intersection. Temporary and permanent impacts are involved, as shown on the Wetland Impact Plans.	
SECTION 3 - PROJECT LOCATION Separate wetland permit applications must be submitted for each municipality within which wetland impacts occur.	
ADDRESS: Lahaye Drive	
TOWN/CITY: Lebanon	
TAX MAP/BLOCK/LOT/UNIT: 10-24-200, 10-24-2,	
US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME:	
☒ N/A	
(Optional) LATITUDE/LONGITUDE in decimal degrees (to five decimal places):	
	43.67345° North
	-72.26274° West

SECTION 4 - APPLICANT (DESIRED PERMIT HOLDER) INFORMATION (Env-Wt 311.04(a)) If the applicant is a trust or a company, then complete with the trust or company information.		
NAME: City of Lebanon, Attn: Rebecca Owens		
MAILING ADDRESS: 51 N. Park St., Attn: Planning & Development		
TOWN/CITY: Lebanon	STATE: NH	ZIP CODE: 03766
EMAIL ADDRESS: rebecca.owens@lebanonnh.gov		
FAX:	PHONE: 603-442-6138	
ELECTRONIC COMMUNICATION: By initialing here: RO, I hereby authorize NHDES to communicate all matters relative to this application electronically.		
SECTION 5 - AUTHORIZED AGENT INFORMATION (Env-Wt 311.04(c)) ☐ N/A		
LAST NAME, FIRST NAME, M.I.: Brodie, Charlotte, M.		
COMPANY NAME: DuBois & King, Inc.		
MAILING ADDRESS: 6 Green Tree Drive		
TOWN/CITY: South Burlington	STATE: VT	ZIP CODE: 05403
EMAIL ADDRESS: cbrodie@dubois-king.com		
FAX:	PHONE: 802-777-5272	
ELECTRONIC COMMUNICATION: By initialing here CB, I hereby authorize NHDES to communicate all matters relative to this application electronically.		
SECTION 6 - PROPERTY OWNER INFORMATION (IF DIFFERENT THAN APPLICANT) (Env-Wt 311.04(b)) If the owner is a trust or a company, then complete with the trust or company information. ☒ Same as applicant		
NAME: AND- Dartmouth College Trustees		
MAILING ADDRESS: PO Box 5188		
TOWN/CITY: Hanover	STATE: NH	ZIP CODE: 03755
EMAIL ADDRESS: daniel.j.justynski@dartmouth.edu		
FAX:	PHONE:	
ELECTRONIC COMMUNICATION: By initialing here , I hereby authorize NHDES to communicate all matters relative to this application electronically.		

SECTION 7 - RESOURCE-SPECIFIC CRITERIA ESTABLISHED IN Env-Wt 400, Env-Wt 500, Env-Wt 600, Env-Wt 700, OR Env-Wt 900 HAVE BEEN MET (Env-Wt 313.01(a)(3))

Describe how the resource-specific criteria have been met for each chapter listed above (please attach information about stream crossings, coastal resources, prime wetlands, or non-tidal wetlands and surface waters):

There are no stream crossings, coastal resources, or prime wetlands (see attached Permit Planning Tool map).

Regarding non-tidal wetlands, the project footprint has been minimized by the use of headwalls at the culverts.

Project construction sequence will be as follows: Demarcation fence and silt fence will be installed prior to construction, maintained during construction, and removed following establishment of permanent erosion control measures.

SECTION 8 - AVOIDANCE AND MINIMIZATION

Impacts within wetland jurisdiction must be avoided to the maximum extent practicable (Env-Wt 313.03(a)).* Any project with unavoidable jurisdictional impacts must then be minimized as described in the [Wetlands Best Management Practice Techniques For Avoidance and Minimization](#) and the [Wetlands Permitting: Avoidance, Minimization and Mitigation Fact Sheet](#). For minor or major projects, a functional assessment of all wetlands on the project site is required (Env-Wt 311.03(b)(10)).*

Please refer to the application checklist to ensure you have attached all documents related to avoidance and minimization, as well as functional assessment (where applicable). Use the [Avoidance and Minimization Checklist](#), the [Avoidance and Minimization Narrative](#), or your own avoidance and minimization narrative.

*See Env-Wt 311.03(b)(6) and Env-Wt 311.03(b)(10) for shoreline structure exemptions.

SECTION 9 - MITIGATION REQUIREMENT (Env-Wt 311.02)

If unavoidable jurisdictional impacts require mitigation, a mitigation [pre-application meeting](#) must occur at least 30 days but not more than 90 days prior to submitting this Standard Dredge and Fill Permit Application.

Mitigation Pre-Application Meeting Date: Month: Day: Year:

☐ N/A - Mitigation is not required

SECTION 10 - THE PROJECT MEETS COMPENSATORY MITIGATION REQUIREMENTS (Env-Wt 313.01(a)(1)c)

Confirm that you have submitted a compensatory mitigation proposal that meets the requirements of Env-Wt 800 for all permanent unavoidable impacts that will remain after avoidance and minimization techniques have been exercised to the maximum extent practicable: ☐ I confirm submittal.

☐ N/A – Compensatory mitigation is not required

SECTION 11 - IMPACT AREA (Env-Wt 311.04(g))

For each jurisdictional area that will be/has been impacted, provide square feet (SF) and, if applicable, linear feet (LF) of impact, and note whether the impact is after-the-fact (ATF; i.e., work was started or completed without a permit).

For intermittent and ephemeral streams, the linear footage of impact is measured along the thread of the channel. Please note, installation of a stream crossing in an ephemeral stream may be undertaken without a permit per Rule Env-Wt 309.02(d), however other dredge or fill impacts should be included below.

For perennial streams/ivers, the linear footage of impact is calculated by summing the lengths of disturbances to the channel and banks.

Permanent impacts are impacts that will remain after the project is complete (e.g., changes in grade or surface materials).

Temporary impacts are impacts not intended to remain (and will be restored to pre-construction conditions) after the project is completed.

JURISDICTIONAL AREA		PERMANENT			TEMPORARY		
		SF	LF	ATF	SF	LF	ATF
Wetlands	Forested Wetland	10727		☐	4556		☐
	Scrub-shrub Wetland			☐			☐
	Emergent Wetland	2531		☐	828		☐
	Wet Meadow			☐			☐
	Vernal Pool			☐			☐
	Designated Prime Wetland			☐			☐
	Duly-established 100-foot Prime Wetland Buffer			☐			☐
Surface Water	Intermittent / Ephemeral Stream			☐			☐
	Perennial Stream or River			☐			☐
	Lake / Pond			☐			☐
	Docking - Lake / Pond			☐			☐
	Docking - River			☐			☐
Banks	Bank - Intermittent Stream			☐			☐
	Bank - Perennial Stream / River			☐			☐
	Bank / Shoreline - Lake / Pond			☐			☐
Tidal	Tidal Waters			☐			☐
	Tidal Marsh			☐			☐
	Sand Dune			☐			☐
	Undeveloped Tidal Buffer Zone (TBZ)			☐			☐
	Previously-developed TBZ			☐			☐
	Docking - Tidal Water			☐			☐
TOTAL		13,258			5,384		

SECTION 12 - APPLICATION FEE (RSA 482-A:3, I)

☐ MINIMUM IMPACT FEE: Flat fee of \$400.

☐ NON-ENFORCEMENT RELATED, PUBLICLY-FUNDED AND SUPERVISED RESTORATION PROJECTS, REGARDLESS OF IMPACT CLASSIFICATION: Flat fee of \$400 (refer to RSA 482-A:3, 1(c) for restrictions).

☒ MINOR OR MAJOR IMPACT FEE: Calculate using the table below:

Permanent and temporary (non-docking):	18642 SF	×	\$0.40 =	\$ 7456.80
Seasonal docking structure:	SF	×	\$2.00 =	\$
Permanent docking structure:	SF	×	\$4.00 =	\$
Projects proposing shoreline structures (including docks) add \$400 =				\$
Total =				\$ 7456.80

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The application fee for minor or major impact is the above calculated total or \$400, whichever is greater = \$ 7456.80		
SECTION 13 - PROJECT CLASSIFICATION (Env-Wt 306.05) Indicate the project classification.		
☐ Minimum Impact Project	☐ Minor Project	☒ Major Project
SECTION 14 - REQUIRED CERTIFICATIONS (Env-Wt 311.11)		
Initial each box below to certify:		
Initials: CB	To the best of the signer's knowledge and belief, all required notifications have been provided.	
Initials: CB	The information submitted on or with the application is true, complete, and not misleading to the best of the signer's knowledge and belief.	
Initials: CB	The signer understands that: - The submission of false, incomplete, or misleading information constitutes grounds for NHDES to: - Deny the application. - Revoke any approval that is granted based on the information. - If the signer is a certified wetland scientist, licensed surveyor, or professional engineer licensed to practice in New Hampshire, refer the matter to the joint board of licensure and certification established by RSA 310-A:1. - The signer is subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641. - The signature shall constitute authorization for the municipal conservation commission and the Department to inspect the site of the proposed project, except for minimum impact forestry SPN projects and minimum impact trail projects, where the signature shall authorize only the Department to inspect the site pursuant to RSA 482-A:6, II.	
Initials: CB	If the applicant is not the owner of the property, each property owner signature shall constitute certification by the signer that he or she is aware of the application being filed and does not object to the filing.	
SECTION 15 - REQUIRED SIGNATURES (Env-Wt 311.04(d); Env-Wt 311.11)		
SIGNATURE (OWNER):	PRINT NAME LEGIBLY:	DATE:
SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER):	PRINT NAME LEGIBLY:	DATE:
SIGNATURE (AGENT, IF APPLICABLE):	PRINT NAME LEGIBLY:	DATE:
SECTION 16 - TOWN / CITY CLERK SIGNATURE (Env-Wt 311.04(f))		
As required by RSA 482-A:3, I(a)(1), I hereby certify that the applicant has filed four application forms, four detailed plans, and four USGS location maps with the town/city indicated below.		
TOWN/CITY CLERK SIGNATURE:	PRINT NAME LEGIBLY:	

TOWN/CITY: Lebanon	DATE:
--------------------	-------

DIRECTIONS FOR TOWN/CITY CLERK:

Per RSA 482-A:3, I(a)(1)

1. IMMEDIATELY sign the original application form and four copies in the signature space provided above.
2. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
3. IMMEDIATELY distribute a copy of the application with one complete set of attachments to each of the following bodies: the municipal Conservation Commission, the local governing body (Board of Selectmen or Town/City Council), and the Planning Board.
4. Retain one copy of the application form and one complete set of attachments and make them reasonably accessible for public review.

DIRECTIONS FOR APPLICANT:

Submit the original permit application form bearing the signature of the Town/City Clerk, additional materials, and the application fee to NHDES by mail or hand delivery at the address at the bottom of this page. Make check or money order payable to "Treasurer – State of NH".

Keep this checklist for your reference; do not submit with your application.

APPLICATION CHECKLIST

Unless specified, all items below are required. Failure to provide the required items will delay a decision on your project and may result in denial of your application. Please reference statute RSA 482-A, Fill and Dredge in Wetlands, and the [Wetland Rules Env-Wt 100-900](#).

- ☒ The completed, dated, signed, and certified application (Env-Wt 311.03(b)(1)).
- ☐ Correct fee as determined in RSA 482-A:3, I(b) or (c), subject to any cap established by RSA 482-A:3, X (Env-Wt 311.03(b)(2)). Make check or money order payable to "Treasurer – State of NH".
- ☒ The Required Planning actions required by Env-Wt 311.01(a)-(c) and Env-Wt 311.03(b)(3).
- ☒ [US Army Corps of Engineers \(ACE\) "Appendix B, New Hampshire General Permits \(GPs\), Required Information and Corps Secondary Impacts Checklist"](#) and its required attachments (Env-Wt 307.02). This includes the [US Fish and Wildlife Service IPAC review](#) and [Section 106 Historic/Archaeological Resource review](#).
- ☒ Project plans described in Env-Wt 311.05 (Env-Wt 311.03(b)(4)).
- ☒ Maps, or electronic shape files and meta data, and other attachments specified in Env-Wt 311.06 (Env-Wt 311.03(b)(5)).
- ☒ Explanation of the methods, timing, and manner as to how the project will meet standard permit conditions required in Env-Wt 307 (Env-Wt 311.03(b)(7)).
- ☐ If applicable, the information regarding proposed compensatory mitigation specified in Env-Wt 311.08 and Chapter Env-Wt 800 - [Permittee Responsible Mitigation Project Worksheet](#), unless not required under Env-Wt 313.04 (Env-Wt 311.03(b)(8); Env-Wt 311.08; Env-Wt 313.04).
- ☒ Any additional information specific to the type of resource as specified in Env-Wt 311.09 (Env-Wt 311.03(b)(9); Env-Wt 311.04(j)).
- ☒ Project specific information required by Env-Wt 500, Env-Wt 600, and Env-Wt 900 (Env-Wt 311.03(b)(11)).
- ☐ A list containing the name, mailing address and tax map/lot number of each abutter to the subject property (Env-Wt 311.03(b)(12)).
- ☐ Copies of certified postal receipts or other proof of receipt of the notices that are required by RSA 482-A:3, I(d) (Env-Wt 311.03(b)(13)).
- ☒ Project design considerations required by Env-Wt 313 (Env-Wt 311.04(j)).
- ☒ Town tax map showing the subject property, the location of the project on the property, and the location of properties of abutters with each lot labeled with the name and mailing address of the abutter (Env-Wt 311.06(a)).
- ☒ Dated and labeled color photographs that:
 - (1) Clearly depict:
 - a. All jurisdictional areas, including but not limited to portions of wetland, shoreline, or surface water where impacts have or are proposed to occur.
 - b. All existing shoreline structures.
 - (2) Are mounted or printed no more than 2 per sheet on 8.5 x 11 inch sheets (Env-Wt 311.06(b)).
- ☒ A copy of the appropriate US Geological Survey map or updated data based on LiDAR at a scale of one inch equals 2,000 feet showing the location of the subject property and proposed project (Env-Wt 311.06(c)).
- ☒ A narrative that describes the work sequence, including pre-construction through post-construction, and the relative timing and progression of all work (Env-Wt 311.06(d)).

- ☐ For all projects in the protected tidal zone, a copy of the recorded deed with book and page numbers for the property (Env-Wt 311.06(e)).
 - ☒ If the applicant is not the owner in fee of the subject property, documentation of the applicant's legal interest in the subject property, provided that for utility projects in a utility corridor, such documentation may comprise a list that:
 - (1) Identifies the county registry of deeds and book and page numbers of all of the easements or other recorded instruments that provide the necessary legal interest; and
 - (2) Has been certified as complete and accurate by a knowledgeable representative of the applicant (Env-Wt 311.06(f)).
 - ☒ The NHB memo containing the NHB identification number and results as well as any written follow-up communications such as additional memos or email communications with either NHB or NHF&G (Env-Wt 311.06(g)). See [Wetlands Permitting: Protected Species and Habitat Fact Sheet](#).
 - ☐ A statement of whether the applicant has received comments from the local conservation commission and, if so, how the applicant has addressed the comments (Env-Wt 311.06(h)).
 - ☐ For projects in LAC jurisdiction, a statement of whether the applicant has received comments from the LAC and, if so, how the applicant has addressed the comments (Env-Wt 311.06(i)).
 - ☐ If the applicant is also seeking to be covered by the state general permits, a statement of whether comments have been received from any federal agency and, if so, how the applicant has addressed the comments (Env-Wt 311.06(j)).
 - ☒ [Avoidance and Minimization Written Narrative](#) or the [Avoidance and Minimization Checklist](#), or your own avoidance and minimization narrative (Env-Wt 311.07).
 - ☐ For after-the-fact applications: information required by Env-Wt 311.12.
 - ☐ [Coastal Resource Worksheet](#) for coastal projects as required under Env-Wt 600.
 - ☐ Prime Wetlands information required under Env-Wt 700. See [WPPT](#) for prime wetland mapping.
- Required Attachments for Minor and Major Projects
- ☒ [Attachment A: Minor and Major Projects](#) (Env-Wt 313.03).
 - ☒ [Functional Assessment Worksheet](#) or others means of documenting the results of actions required by Env-Wt 311.10 as part of an application preparation for a standard permit (Env-Wt 311.03(b)(3); Env-Wt 311.03(b)(10)). See [Functional Assessments for Wetlands and Other Aquatic Resources Fact Sheet](#). For shoreline structures, see shoreline structures exemption in Env-Wt 311.03(b)(10)).
- Optional Materials
- ☐ [Stream Crossing Worksheet](#) which summarizes the requirements for stream crossings under Env-Wt 900.
 - ☐ Request for [concurrent processing of related shoreland / wetlands permit applications](#) (Env-Wt 313.05).



STANDARD DREDGE AND FILL WETLANDS PERMIT APPLICATION ATTACHMENT A: MINOR AND MAJOR PROJECTS



Water Division/Land Resources Management
Wetlands Bureau

[Check the Status of your Application](#)

RSA/ Rule: RSA 482-A/ Env-Wt 311.10; Env-Wt 313.01(a)(1); Env-Wt 313.03

APPLICANT'S NAME: City of Lebanon; Rebecca Owens TOWN NAME: Lebanon

Attachment A is required for all minor and major projects, and must be completed in addition to the [Avoidance and Minimization Narrative](#) or [Checklist](#) that is required by Env-Wt 307.11.

For projects involving construction or modification of non-tidal shoreline structures over areas of surface waters having an absence of wetland vegetation, only Sections I.X through I.XV are required to be completed.

PART I: AVOIDANCE AND MINIMIZATION

In accordance with Env-Wt 313.03(a), the Department shall not approve any alteration of any jurisdictional area unless the applicant demonstrates that the potential impacts to jurisdictional areas have been avoided to the maximum extent practicable and that any unavoidable impacts have been minimized, as described in the [Wetlands Best Management Practice Techniques For Avoidance and Minimization](#).

SECTION I.I - ALTERNATIVES (Env-Wt 313.03(b)(1))

Describe how there is no practicable alternative that would have a less adverse impact on the area and environments under the Department's jurisdiction.

THE PROJECT IS INTENDED TO CONNECT SIDEWALKS TO THE WEST OF THE PROJECT ALONG LAHAYE DRIVE AND EAST OF THE PROJECT ALONG CENTERRA ROAD. THEREFORE, THE PROJECT MUST BE LOCATED ALONG LAHAYE DRIVE.

THE PROPOSED MULTI-USE PATH CONSIDERED 4 ALTERNATIVES ALONG LAHAYE DRIVE. EACH SIDE ON LAHAYE WAS CONSIDERED FOR AN EMBANKMENT FILL ALTERNATIVE AS WELL AS AN EARTH WALL ALTERNATIVE. THE EXTENT TO WHICH THE AREA OF WETLANDS WOULD BE IMPACTED WITH BOTH EMBANKMENT SLOPE ALTERNATIVES DID NOT VARY SIGNIFICANTLY. AFTER FURTHER DISCUSSION WITH THE CITY OF LEBANON, THE ALTERNATIVE NORTH OF LAHAYE DRIVE WAS SELECTED FOR EASE OF VEHICULAR TRAFFIC AND PEDESTRIAN FLOW AT THE INTERSECTION WITH MOUNT SUPPORT AND NH 120.

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SECTION I.II - MARSHES (Env-Wt 313.03(b)(2))

Describe how the project avoids and minimizes impacts to tidal marshes and non-tidal marshes where documented to provide sources of nutrients for finfish, crustacean, shellfish, and wildlife of significant value.

No stream is present, so there are no finfish, crustacea or shellfish present. There is no documentation of wildlife of significant value at the site. The site is not considered an area of highest ranked wildlife habitat in NH or the Biological Region.

SECTION I.III - HYDROLOGIC CONNECTION (Env-Wt 313.03(b)(3))

Describe how the project maintains hydrologic connections between adjacent wetland or stream systems.

The project will maintain the current hydrologic connections to and from the wetland through the extensions of the 30" rcp culvert at station 20+15 and the 36" culvert at station 24+50.

SECTION I.IV - JURISDICTIONAL IMPACTS (Env-Wt 313.03(b)(4))

Describe how the project avoids and minimizes impacts to wetlands and other areas of jurisdiction under RSA 482-A, especially those in which there are exemplary natural communities, vernal pools, protected species and habitat, documented fisheries, and habitat and reproduction areas for species of concern, or any combination thereof.

Since the path follows Lahaye Drive, and there are wetlands on both sides of Lahaye Drive, wetland impacts could not be avoided. Alternative alignments on both sides of the road were studied, and it was determined that there would not be a significant difference in wetland impact between the two alignments, so minimization by choosing a different alignment was not feasible. The proposed alignment is as close as possible to Lahaye Drive, thus minimizing direct impacts as well as indirect impacts of wetland fragmentation. Headwalls at culvert ends have minimized impacts.

SECTION I.V - PUBLIC COMMERCE, NAVIGATION, OR RECREATION (Env-Wt 313.03(b)(5))

Describe how the project avoids and minimizes impacts that eliminate, depreciate or obstruct public commerce, navigation, or recreation.

The project will not impact public commerce, navigation or recreation. It will increase recreational use of the area.

SECTION I.VI - FLOODPLAIN WETLANDS (Env-Wt 313.03(b)(6))

Describe how the project avoids and minimizes impacts to floodplain wetlands that provide flood storage.

There is no stream associated with the wetland in this location. Therefore, there is no floodplain.

SECTION I.VII - RIVERINE FORESTED WETLAND SYSTEMS AND SCRUB-SHRUB – MARSH COMPLEXES
(Env-Wt 313.03(b)(7))

Describe how the project avoids and minimizes impacts to natural riverine forested wetland systems and scrub-shrub – marsh complexes of high ecological integrity.

There are no natural riverine forested wetland systems present. The scrub-shrub and marsh wetlands are not of high ecological integrity, since they are immediately adjacent to a roadway. Avoidance and minimization of wetland impact in general is discussed under Section I.IV above.

SECTION I.VIII - DRINKING WATER SUPPLY AND GROUNDWATER AQUIFER LEVELS (Env-Wt 313.03(b)(8))

Describe how the project avoids and minimizes impacts to wetlands that would be detrimental to adjacent drinking water supply and groundwater aquifer levels.

The path is not for motorized vehicles, so it would not contribute vehicle-associated pollution to any surface waters associated with drinking water supply. It will not cause a change to any potential groundwater aquifer levels, as it will not impede the flow of water into or out of the wetland.

SECTION I.IX - STREAM CHANNELS (Env-Wt 313.03(b)(9))

Describe how the project avoids and minimizes adverse impacts to stream channels and the ability of such channels to handle runoff of waters.

There is no stream channel present.

SECTION I.X - SHORELINE STRUCTURES - CONSTRUCTION SURFACE AREA (Env-Wt 313.03(c)(1))

Describe how the project has been designed to use the minimum construction surface area over surface waters necessary to meet the stated purpose of the structures.

There are no shoreline structures involved.

SECTION I.XI - SHORELINE STRUCTURES - LEAST INTRUSIVE UPON PUBLIC TRUST (Env-Wt 313.03(c)(2))

Describe how the type of construction proposed is the least intrusive upon the public trust that will ensure safe docking on the frontage.

There are no shoreline structures involved.

SECTION I.XII - SHORELINE STRUCTURES – ABUTTING PROPERTIES (Env-Wt 313.03(c)(3))

Describe how the structures have been designed to avoid and minimize impacts on ability of abutting owners to use and enjoy their properties.

There are no shoreline structures involved.

SECTION I.XIII - SHORELINE STRUCTURES – COMMERCE AND RECREATION (Env-Wt 313.03(c)(4))

Describe how the structures have been designed to avoid and minimize impacts to the public's right to navigation, passage, and use of the resource for commerce and recreation.

There are no shoreline structures involved.

SECTION I.XIV - SHORELINE STRUCTURES – WATER QUALITY, AQUATIC VEGETATION, WILDLIFE AND FINFISH HABITAT (Env-Wt 313.03(c)(5))

Describe how the structures have been designed, located, and configured to avoid impacts to water quality, aquatic vegetation, and wildlife and finfish habitat.

There are no shoreline structures involved.

SECTION I.XV - SHORELINE STRUCTURES – VEGETATION REMOVAL, ACCESS POINTS, AND SHORELINE STABILITY (Env-Wt 313.03(c)(6))

Describe how the structures have been designed to avoid and minimize the removal of vegetation, the number of access points through wetlands or over the bank, and activities that may have an adverse effect on shoreline stability.

There are no shoreline structures involved.

PART II: FUNCTIONAL ASSESSMENT	
REQUIREMENTS Ensure that project meets the requirements of Env-Wt 311.10 regarding functional assessment (Env-Wt 311.04(j); Env-Wt 311.10).	
FUNCTIONAL ASSESSMENT METHOD USED: COE Highway Methodology Workbook Supplement.	
NAME OF CERTIFIED WETLAND SCIENTIST (FOR NON-TIDAL PROJECTS) OR QUALIFIED COASTAL PROFESSIONAL (FOR TIDAL PROJECTS) WHO COMPLETED THE ASSESSMENT: CHARLOTTE BRODIE	
DATE OF ASSESSMENT: 05.03.21	
Check this box to confirm that the application includes a NARRATIVE ON FUNCTIONAL ASSESSMENT: ☒	
For minor or major projects requiring a standard permit without mitigation, the applicant shall submit a wetland evaluation report that includes completed checklists and information demonstrating the RELATIVE FUNCTIONS AND VALUES OF EACH WETLAND EVALUATED. Check this box to confirm that the application includes this information, if applicable: ☐	
Note: The Wetlands Functional Assessment worksheet can be used to compile the information needed to meet functional assessment requirements.	



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Appendix B

New Hampshire General Permits (GPs) Required Information and Corps Secondary Impacts Checklist

In order for the Corps of Engineers to properly evaluate your application, applicants must submit the following information along with the New Hampshire DES Wetlands Bureau application or permit notification forms. Some projects may require more information. For a more comprehensive checklist, go to <https://www.nae.usace.army.mil/Missions/Regulatory/> “Useful Documents, Forms and Publications” and then “Corps Application Form and Guidance.” Check with the Corps at (978) 318-8832 for project-specific requirements. For your convenience, this Appendix B is also attached to the State of New Hampshire DES Wetlands Bureau application and Permit by Notification forms.

All Projects:

- New Hampshire Department of Environmental Services (DES) Wetlands Permit Application.
- Request for Project Review Form by the New Hampshire Division of Historical Resources (DHR)
<https://www.nh.gov/nhdhr/review/rpr.htm>.
- Photographs of wetland/waterway to be impacted.
- Purpose of the project.
- Legible, reproducible plans no larger than 11”x17” with bar scale. Provide locus map and plan views of the entire property.
- Typical cross-section views of all wetland and waterway fill areas and wetland replication areas.
- In navigable waters, show mean low water (MLW) and mean high water (MHW) elevations. Show the high tide line (HTL) elevations when fill is involved. In other waters, show ordinary high water (OHW) elevation.
- On each plan, show the following for the project:
 - Vertical datum and the NAVD 1988 equivalent with the vertical units as U.S. feet. In coastal waters this may be mean higher high water (MHHW), mean high water (MHW), mean low water (MLW), mean lower low water (MLLW) or other tidal datum with the vertical units as U.S. feet. MLLW and MHHW are preferred. Provide the correction factor detailing how the vertical datum (e.g., MLLW) was derived using the latest National Tidal Datum Epoch for that area, typically 1983-2001.
 - Horizontal state plane coordinates in U.S. survey feet based on the Traverse Mercator Grid system for the State of New Hampshire (Zone 2800) NAD 83.
 - Project limits with existing and proposed conditions.
 - Limits of any Federal Navigation Project in the vicinity of the project area and horizontal State Plane Coordinates in U.S. survey feet for the limits of the proposed work closest to the Federal Navigation Project;
 - Volume, type, and source of fill material to be discharged into waters and wetlands, including the area(s) (in square feet or acres) of fill in wetlands, below the OHW in inland waters and below the HTL in coastal waters.
 - Delineation of all waterways and wetlands on the project site,;
- Use Federal delineation methods and include Corps wetland delineation data sheets (GC 2).
- For activities involving discharges of dredged or fill material into waters of the U.S., include a statement describing how impacts to waters of the U.S. are to be avoided and minimized, and either a statement describing how impacts to waters of the U.S. are to be compensated for (or a conceptual or detailed mitigation plan) or a statement explaining why compensatory mitigation should not be required for the proposed impacts. Please contact the Corps for guidance.



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**New Hampshire General Permits (GPs)
Appendix B - Corps Secondary Impacts Checklist
(for inland wetland/waterway fill projects in New Hampshire)**

1. Attach any explanations to this checklist. Lack of information could delay a Corps permit determination.
2. All references to “work” include all work associated with the project construction and operation. Work includes filling, clearing, flooding, draining, excavation, dozing, stumping, etc.
3. See GC 5, regarding single and complete projects.
4. Contact the Corps at (978) 318-8832 with any questions.

1. Impaired Waters	Yes	No
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm to determine if there is an impaired water in the vicinity of your work area.*		X
2. Wetlands	Yes	No
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?		X
2.2 Are there proposed impacts to SAS, special wetlands. Applicants may obtain information from the NH Department of Resources and Economic Development Natural Heritage Bureau (NHB) DataCheck Tool for information about resources located on the property at https://www2.des.state.nh.us/nhb_datacheck/ . The book Natural Community Systems of New Hampshire also contains specific information about the natural communities found in NH.		X
2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology, sediment transport & wildlife passage? Project ties into existing culvert system	X	
2.4 Would the project remove part or all of a riparian buffer? (Riparian buffers are lands adjacent to streams where vegetation is strongly influenced by the presence of water. They are often thin lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream banks. They are also called vegetated buffer zones.)		X
2.5 The overall project site is more than 40 acres?		X
2.6 What is the area of the previously filled wetlands?	0.51 ac	
2.7 What is the area of the proposed fill in wetlands?	0.4 ac.	
2.8 What is the % of previously and proposed fill in wetlands to the overall project site?	85	
3. Wildlife	Yes	No
3.1 Has the NHB & USFWS determined that there are known occurrences of rare species, exemplary natural communities, Federal and State threatened and endangered species and habitat, in the vicinity of the proposed project? (All projects require an NHB ID number & a USFWS IPAC determination.) NHB DataCheck Tool: https://www2.des.state.nh.us/nhb_datacheck/ USFWS IPAC website: https://ecos.fws.gov/ipac/location/index		X

3.2 Would work occur in any area identified as either “Highest Ranked Habitat in N.H.” or “Highest Ranked Habitat in Ecological Region”? (These areas are colored magenta and green, respectively, on NH Fish and Game’s map, “2010 Highest Ranked Wildlife Habitat by Ecological Condition.”) Map information can be found at: • PDF: https://wildlife.state.nh.us/wildlife/wap-high-rank.html. • Data Mapper: www.granit.unh.edu. • GIS: www.granit.unh.edu/data/downloadfreedata/category/databycategory.html.		X
3.3 Would the project impact more than 20 acres of an undeveloped land block (upland, wetland/waterway) on the entire project site and/or on an adjoining property(s)?		X
3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development?		X
3.5 Are stream crossings designed in accordance with the GC 21?		N/A
4. Flooding/Floodplain Values	Yes	No
4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?		X
4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage?		N/A
5. Historic/Archaeological Resources		
For a minimum, minor or major impact project - a copy of the Request for Project Review (RPR) Form (www.nh.gov/nhdhr/review) with your DES file number shall be sent to the NH Division of Historical Resources as required on Page 11 GC 8(d) of the GP document**	X	

*Although this checklist utilizes state information, its submittal to the Corps is a Federal requirement.

** If your project is not within Federal jurisdiction, coordination with NH DHR is not required under Federal law.



AVOIDANCE AND MINIMIZATION CHECKLIST

Water Division/Land Resources Management

Wetlands Bureau

[Check the Status of your Application](#)



RSA/Rule: RSA 482-A/ Env-Wt 311.07(c)

This checklist can be used in lieu of the written narrative required by Env-Wt 311.07(a) to demonstrate compliance with requirements for Avoidance and Minimization (A/M), pursuant to RSA 482-A:1 and Env-Wt 311.07(c).

For the construction or modification of non-tidal shoreline structures over areas of surface waters without wetland vegetation, complete only Sections 1, 2, and 4 (or the applicable sections in [Attachment A: Minor and Major Projects \(NHDES-W-06-013\)](#)).

The following definitions and abbreviations apply to this worksheet:

- “A/M BMPs” stands for [Wetlands Best Management Practice Techniques for Avoidance and Minimization](#) dated 2019, published by the New England Interstate Water Pollution Control Commission (Env-Wt 102.18).
- “Practicable” means available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes (Env-Wt 103.62).

SECTION 1 - CONTACT/LOCATION INFORMATION

APPLICANT LAST NAME, FIRST NAME, M.I.: City of Lebanon Attn: Rebecca Owens

PROJECT STREET ADDRESS: Lahaye Drive

PROJECT TOWN: Lebanon

TAX MAP/LOT NUMBER: 10-24-200

SECTION 2 - PRIMARY PURPOSE OF THE PROJECT

Env-Wt 311.07(b)(1)	Indicate whether the primary purpose of the project is to construct a water-access structure or requires access through wetlands to reach a buildable lot or the buildable portion thereof.	☐ Yes ☒ No
---------------------	---	---

If you answered “no” to this question, describe the purpose of the “non-access” project type you have proposed:

To provide a multi-use path.

irm@des.nh.gov or (603) 271-2147

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www.des.nh.gov

SECTION 3 - A/M PROJECT DESIGN TECHNIQUES		
Check the appropriate boxes below in order to demonstrate that these items have been considered in the planning of the project. Use N/A (not applicable) for each technique that is not applicable to your project.		
Env-Wt 311.07(b)(2)	For any project that proposes new permanent impacts of more than one acre or that proposes new permanent impacts to a Priority Resource Area (PRA), or both, whether any other properties reasonably available to the applicant, whether already owned or controlled by the applicant or not, could be used to achieve the project's purpose without altering the functions and values of any jurisdictional area, in particular wetlands, streams, and PRAs.	☐ Check ☒ N/A
Env-Wt 311.07(b)(3)	Whether alternative designs or techniques, such as different layouts, construction sequencing, or alternative technologies could be used to avoid impacts to jurisdictional areas or their functions and values.	☒ Check ☐ N/A
Env-Wt 311.07(b)(4) Env-Wt 311.10(c)(1) Env-Wt 311.10(c)(2)	The results of the functional assessment required by Env-Wt 311.03(b)(10) were used to select the location and design for the proposed project that has the least impact to wetland functions.	☒ Check ☐ N/A
Env-Wt 311.07(b)(4) Env-Wt 311.10(c)(3)	Where impacts to wetland functions are unavoidable, the proposed impacts are limited to the wetlands with the least valuable functions on the site while avoiding and minimizing impacts to the wetlands with the highest and most valuable functions.	☒ Check ☐ N/A
Env-Wt 313.01(c)(1) Env-Wt 313.01(c)(2) Env-Wt 313.03(b)(1)	No practicable alternative would reduce adverse impact on the area and environments under the department's jurisdiction and the project will not cause random or unnecessary destruction of wetlands.	☒ Check ☐ N/A
Env-Wt 313.01(c)(3)	The project would not cause or contribute to the significant degradation of waters of the state or the loss of any PRAs.	☒ Check ☐ N/A
Env-Wt 313.03(b)(3) Env-Wt 904.07(c)(8)	The project maintains hydrologic connectivity between adjacent wetlands or stream systems.	☒ Check ☐ N/A
Env-Wt 311.10 A/M BMPs	Buildings and/or access are positioned away from high function wetlands or surface waters to avoid impact.	☐ Check ☒ N/A
Env-Wt 311.10 A/M BMPs	The project clusters structures to avoid wetland impacts.	☐ Check ☒ N/A
Env-Wt 311.10 A/M BMPs	The placement of roads and utility corridors avoids wetlands and their associated streams.	☐ Check ☒ N/A
A/M BMPs	The width of access roads or driveways is reduced to avoid and minimize impacts. Pullouts are incorporated in the design as needed.	☐ Check ☒ N/A
A/M BMPs	The project proposes bridges or spans instead of roads/driveways/trails with culverts.	☐ Check ☒ N/A

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A/M BMPs	The project is designed to minimize the number and size of crossings, and crossings cross wetlands and/or streams at the narrowest point.	☒ Check ☐ N/A
Env-Wt 500 Env-Wt 600 Env-Wt 900	Wetland and stream crossings include features that accommodate aquatic organism and wildlife passage.	☐ Check ☒ N/A
Env-Wt 900	Stream crossings are sized to address hydraulic capacity and geomorphic compatibility.	☐ Check ☒ N/A
A/M BMPs	Disturbed areas are used for crossings wherever practicable, including existing roadways, paths, or trails upgraded with new culverts or bridges.	☐ Check ☒ N/A
SECTION 4 - NON-TIDAL SHORELINE STRUCTURES		
Env-Wt 313.03(c)(1)	The non-tidal shoreline structure has been designed to use the minimum construction surface area over surfaces waters necessary to meet the stated purpose of the structure.	☐ Check ☒ N/A
Env-Wt 313.03(c)(2)	The type of construction proposed for the non-tidal shoreline structure is the least intrusive upon the public trust that will ensure safe navigation and docking on the frontage.	☐ Check ☒ N/A
Env-Wt 313.03(c)(3)	The non-tidal shoreline structure has been designed to avoid and minimize impacts on the ability of abutting owners to use and enjoy their properties.	☐ Check ☒ N/A
Env-Wt 313.03(c)(4)	The non-tidal shoreline structure has been designed to avoid and minimize impacts to the public's right to navigation, passage, and use of the resource for commerce and recreation.	☐ Check ☒ N/A
Env-Wt 313.03(c)(5)	The non-tidal shoreline structure has been designed, located, and configured to avoid impacts to water quality, aquatic vegetation, and wildlife and finfish habitat.	☐ Check ☒ N/A
Env-Wt 313.03(c)(6)	The non-tidal shoreline structure has been designed to avoid and minimize the removal of vegetation, the number of access points through wetlands or over the bank, and activities that may have an adverse effect on shoreline stability.	☐ Check ☒ N/A

Wetland Function-Value Evaluation Form

Wetland A, north side of Lahaye
Wetland I.D. Drive.
Latitude 43.67335 Longitude -72.26265
Prepared by: C. Brodie Date 05.03.21
Wetland Impact:
Type PFO/SS/EM Area 0.3 ac.

Total area of wetland 341 AC Human made? No Is wetland part of a wildlife corridor? No or a "habitat island"? No
Adjacent land use Roads. Hospital development to north Distance to nearest roadway or other development Adjacent
Dominant wetland systems present PFO/SS/EM Contiguous undeveloped buffer zone present Yes
Is the wetland a separate hydraulic system? No If not, where does the wetland lie in the drainage basin? Upper
How many tributaries contribute to the wetland? None in project area Wildlife & vegetation diversity/abundance (see attached list)

	Function/Value	Suitability Y / N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
5	Groundwater Recharge/Discharge	Y	2,5,15	X	Wetland supported by broad-scale groundwater discharge
4	Floodflow Alteration	Y	1,2,3,4,5,6,8,9,11,14,16,17,18	X	Multiple indicators
3	Fish and Shellfish Habitat	N	N/A		Water flow is diffuse, no defined stream in project area
10	Sediment/Toxicant Retention	Y	1,3,4,5,6,7,9,	X	Multiple indicators, sediments (e.g., sand, salt, solvents) from road
7	Nutrient Removal	Y	1,3,5,7,8,9,10,11,		Multiple indicators, yet no substantial contributors of nutrients
8	Production Export	Y	1,2,7,8,		Flushing opportunity low, no defined stream in project area
11	Sediment/Shoreline Stabilization	Y	3,4,15		Stabilization of sediments likely, but no streams or waterbodies
14	Wildlife Habitat	Y	8,11,13,14,15,		Wetland is large and well-vegetated, but is surrounded by roads, with hospital development to north.
13	Recreation	N	None		No indicators
2	Educational/Scientific Value	N	None		No indicators
12	Uniqueness/Heritage	N	4		Only 1 indicator
9	Visual Quality/Aesthetics	N	11,12		Only 2 indicators, no good, safe viewing location
6	ES Endangered Species Habitat	N	None		N/A
	Other				

Notes: * Refer to backup list of numbered considerations.



WETLANDS FUNCTIONAL ASSESSMENT WORKSHEET

Water Division/Land Resource Management Wetlands Bureau



[Check the Status of your Application](#)

RSA/Rule: RSA 482-A / Env-Wt 311.03(b)(10); Env-Wt 311.10

APPLICANT LAST NAME, FIRST NAME, M.I.: City of Lebanon, Attn: Rebecca Owens

As required by Env-Wt 311.03(b)(10), an application for a standard permit for minor and major projects must include a functional assessment of all wetlands on the project site as specified in Env-Wt 311.10. This worksheet will help you compile data for the functional assessment needed to meet federal (US Army Corps of Engineers (USACE); if applicable) and NHDES requirements. Additional requirements are needed for projects in tidal area; please refer to the [Coastal Area Worksheet \(NHDES-W-06-079\)](#) for more information.

Both a desktop review and a field examination are needed to accurately determine surrounding land use, hydrology, hydroperiod, hydric soils, vegetation, structural complexity of wetland classes, hydrologic connections between wetlands or stream systems or wetland complex, position in the landscape, and physical characteristics of wetlands and associated surface waters. The results of the evaluation are to be used to select the location of the proposed project having the least impact to wetland functions and values (Env-Wt 311.10). This worksheet can be used in conjunction with the [Avoidance and Minimization Written Narrative \(NHDES-W-06-089\)](#) and the [Avoidance and Minimization Checklist \(NHDES-W-06-050\)](#) to address Env-Wt 313.03 (Avoidance and Minimization). If more than one wetland/ stream resource is identified, multiple worksheets can be attached to the application. All wetland, vernal pools, and stream identification (ID) numbers are to be displayed and located on the wetlands delineation of the subject property.

SECTION 1 - LOCATION (USACE HIGHWAY METHODOLOGY)	
ADJACENT LAND USE: <u>Roads, hospital development</u>	
CONTIGUOUS UNDEVELOPED BUFFER ZONE PRESENT? ☒ Yes ☐ No	
DISTANCE TO NEAREST ROADWAY OR OTHER DEVELOPMENT (in feet): <u>adjacent</u>	
SECTION 2 - DELINEATION (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)	
CERTIFIED WETLAND SCIENTIST (if in a non-tidal area) or QUALIFIED COASTAL PROFESSIONAL (if in a tidal area) who prepared this assessment: <u>Charlotte Brodie</u>	
DATE(S) OF SITE VISIT(S): <u>05.10.18</u>	DELINEATION PER ENV-WT 406 COMPLETED? ☒ Yes ☐ No
CONFIRM THAT THE EVALUATION IS BASED ON: ☒ Office and ☒ Field examination.	
METHOD USED FOR FUNCTIONAL ASSESSMENT (check one and fill in blank if "other"): ☒ USACE Highway Methodology. ☐ Other scientifically supported method (enter name/ title): 	

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SECTION 3 - WETLAND RESOURCE SUMMARY (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)	
WETLAND ID: A	LOCATION: (LAT/ LONG) 43.67345/-72.26274
WETLAND AREA: 2+ac	DOMINANT WETLAND SYSTEMS PRESENT: PFO/SS/EM
HOW MANY TRIBUTARIES CONTRIBUTE TO THE WETLAND? 0	COWARDIN CLASS: PFO/SS/EM
IS THE WETLAND A SEPARATE HYDRAULIC SYSTEM? ☐ Yes ☒ No if not, where does the wetland lie in the drainage basin? Upper	IS THE WETLAND PART OF: ☐ A wildlife corridor or ☐ A habitat island? IS THE WETLAND HUMAN-MADE? ☐ Yes ☒ No
IS THE WETLAND IN A 100-YEAR FLOODPLAIN? ☐ Yes ☒ No	ARE VERNAL POOLS PRESENT? ☐ Yes ☒ No (If yes, complete the Vernal Pool Table)
ARE ANY WETLANDS PART OF A STREAM OR OPEN-WATER SYSTEM? ☐ Yes ☒ No	ARE ANY PUBLIC OR PRIVATE WELLS DOWNSTREAM/ DOWNGRADIENT? ☐ Yes ☒ No
PROPOSED WETLAND IMPACT TYPE: fill	PROPOSED WETLAND IMPACT AREA: 0.4 ac
SECTION 4 - WETLANDS FUNCTIONS AND VALUES (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)	
The following table can be used to compile data on wetlands functions and values. The reference numbers indicated in the "Functions/ Values" column refer to the following functions and values: 1. Ecological Integrity (from RSA 482-A:2, XI) 2. Educational Potential (from USACE Highway Methodology: Educational/Scientific Value) 3. Fish & Aquatic Life Habitat (from USACE Highway Methodology: Fish & Shellfish Habitat) 4. Flood Storage (from USACE Highway Methodology: Floodflow Alteration) 5. Groundwater Recharge (from USACE Highway Methodology: Groundwater Recharge/Discharge) 6. Noteworthiness (from USACE Highway Methodology: Threatened or Endangered Species Habitat) 7. Nutrient Trapping/Retention & Transformation (from USACE Highway Methodology: Nutrient Removal) 8. Production Export (Nutrient) (from USACE Highway Methodology) 9. Scenic Quality (from USACE Highway Methodology: Visual Quality/Aesthetics) 10. Sediment Trapping (from USACE Highway Methodology: Sediment /Toxicant Retention) 11. Shoreline Anchoring (from USACE Highway Methodology: Sediment/Shoreline Stabilization) 12. Uniqueness/Heritage (from USACE Highway Methodology) 13. Wetland-based Recreation (from USACE Highway Methodology: Recreation) 14. Wetland-dependent Wildlife Habitat (from USACE Highway Methodology: Wildlife Habitat) First, determine if a wetland is suitable for a particular function and value ("Suitability" column) and indicate the rationale behind your determination ("Rationale" column). Please use the rationale reference numbers listed in Appendix A of USACE The Highway Methodology Workbook Supplement. Second, indicate which functions and values are principal ("Principal Function/value?" column). As described in The Highway Methodology Workbook Supplement, "functions and values can be principal if they are an important physical component of a wetland ecosystem (function only) and/or are considered of special value to society, from a local, regional, and/or national perspective". "Important Notes" are to include characteristics the evaluator used to determine the principal function and value of the wetland.	

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FUNCTIONS/ VALUES	SUITABILITY (Y/N)	RATIONALE (Reference #)	PRINCIPAL FUNCTION/VALUE? (Y/N)	IMPORTANT NOTES
1	☒ Yes ☐ No	some integrity where bordered by undeveloped land, but project area adjacent to a road	☐ Yes ☒ No	Adjacent to a road
2	☐ Yes ☒ No	None	☐ Yes ☒ No	
3	☐ Yes ☒ No	None	☐ Yes ☒ No	
4	☒ Yes ☐ No	1,2,3,4,5,6,8,9,11,14,16,17,18	☒ Yes ☐ No	
5	☒ Yes ☐ No	2,5,15	☒ Yes ☐ No	
6	☐ Yes ☒ No	None	☐ Yes ☒ No	
7	☒ Yes ☐ No	1,3,5,7,8,9,10,11	☐ Yes ☒ No	No substantial contributors of nutrients
8	☒ Yes ☐ No	1,2,7,8	☐ Yes ☒ No	Production occurs, but no stream to export them
9	☐ Yes ☒ No	11,12	☐ Yes ☒ No	No safe viewing location
10	☒ Yes ☐ No	1,3,4,5,6,7,9	☒ Yes ☐ No	sand, salt, solvents from road
11	☒ Yes ☐ No	3,4,15	☐ Yes ☒ No	some stabilization of sediments, but no shoreline
12	☐ Yes ☒ No	4	☐ Yes ☒ No	
13	☐ Yes ☒ No	None	☐ Yes ☒ No	
14	☒ Yes ☐ No	8,11,13,14,15	☐ Yes ☒ No	Wetland is large and well-vegetated, but is surrounded by roads, with hospital development to north.

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SECTION 5 - VERNAL POOL SUMMARY (Env-Wt 311.10)

Delineations of vernal pools shall be based on the characteristics listed in the definition of “vernal pool” in Env-Wt 104.44. To assist in the delineation, individuals may use either of the following references:

- Identifying and Documenting Vernal Pools in New Hampshire 3rd Ed., 2016, published by the New Hampshire Fish and Game Department; or
- The USACE Vernal Pool Assessment draft guidance dated 9-10-2013 and form dated 9-6-2016, Appendix L of the USACE New England District Compensatory Mitigation Guidance.

All vernal pool ID numbers are to be displayed and located on the wetland delineation of the subject property.

“Important Notes” are to include documented reproductive and wildlife values, landscape context, and relationship to other vernal pools/wetlands.

Note: For projects seeking federal approval from the USACE, please attach a completed copy of The USACE “Vernal Pool Assessment” form dated 9-6-2016, Appendix L of the USACE New England District Compensatory Mitigation Guidance.

VERNAL POOL ID NUMBER	DATE(S) OBSERVED	PRIMARY INDICATORS PRESENT (LIST)	SECONDARY INDICATORS PRESENT (LIST)	LENGTH OF HYDROPERIOD	IMPORTANT NOTES
1	None				
2					
3					
4					
5					

SECTION 6 - STREAM RESOURCES SUMMARY

DESCRIPTION OF STREAM: None	STREAM TYPE (ROSGEN):
HAVE FISHERIES BEEN DOCUMENTED? ☐ Yes ☒ No	DOES THE STREAM SYSTEM APPEAR STABLE? ☐ Yes ☐ No

OTHER KEY ON-SITE FUNCTIONS OF NOTE:

The following table can be used to compile data on stream resources. “Important Notes” are to include characteristics the evaluator used to determine principal function and value of each stream. The functions and values reference number are defined in Section 4.

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FUNCTIONS/ VALUES	SUITABILITY (Y/N)	RATIONALE	PRINCIPAL FUNCTION/VALUE? (Y/N)	IMPORTANT NOTES
1	☐ Yes ☐ No		☐ Yes ☐ No	
2	☐ Yes ☐ No		☐ Yes ☐ No	
3	☐ Yes ☐ No		☐ Yes ☐ No	
4	☐ Yes ☐ No		☐ Yes ☐ No	
5	☐ Yes ☐ No		☐ Yes ☐ No	
6	☐ Yes ☐ No		☐ Yes ☐ No	
7	☐ Yes ☐ No		☐ Yes ☐ No	
8	☐ Yes ☐ No		☐ Yes ☐ No	
9	☐ Yes ☐ No		☐ Yes ☐ No	
10	☐ Yes ☐ No		☐ Yes ☐ No	
11	☐ Yes ☐ No		☐ Yes ☐ No	
12	☐ Yes ☐ No		☐ Yes ☐ No	
13	☐ Yes ☐ No		☐ Yes ☐ No	
14	☐ Yes ☐ No		☐ Yes ☐ No	

SECTION 7 - ATTACHMENTS (USACE HIGHWAY METHODOLOGY; Env-Wt 311.10)

- ☒ Wildlife and vegetation diversity/abundance list.
- ☒ Photograph of wetland.
- ☒ Wetland delineation plans showing wetlands, vernal pools, and streams in relation to the impact area and surrounding landscape. Wetland IDs, vernal pool IDs, and stream IDs must be indicated on the plans.
- ☐ For projects in tidal areas only: additional information required by Env-Wt 603.03/603.04. Please refer to the [Coastal Area Worksheet \(NHDES-W-06-079\)](#) for more information.

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Appendix B Certification – Activities with Minimal Potential to Cause Effects

Date Reviewed: 4/22/2021 ☒ This Project uses only State funding; however project activities listed below comply with the PA.

(Desktop or Field Review Date)

Project Name: Lahaye Drive Multi-Use Path

State Number: 41366 FHWA Number: X-A004(617)

Environmental Contact: Sheila Charles DOT
 Email Address: Sheila.Charles@dot.nh.gov Project Manager: Robert Hudson

Project Description: Construct approximately 950 linear feet of pathway adjacent to Lahaye Drive between Mt. Support Rd. and NH Route 120. Includes construction of new 10' bituminous multi-use path, reconstructed curb ramps, and extension of existing drainage culverts, as well as improvements within the intersection of Lahaye and Rt 120, including curb, crosswalk, median and signal work within the intersection.

Please select the applicable activity/activities:

Highway and Roadway Improvements	
☐	1. Modernization and general highway maintenance <u>that may require additional highway right-of-way or easement</u> , including: Choose an item. Choose an item.
☐	2. Installation of rumble strips or rumble stripes
☐	3. Installation or replacement of pole-mounted signs
☐	4. Guardrail replacement, provided any extension does not connect to a bridge older than 50 years old (unless it does already), and there is no change in access associated with the extension
Bridge and Culvert Improvements	
☐	5. Culvert replacement (excluding stone box culverts), when the culvert is less than 60" in diameter and excavation for replacement is limited to previously disturbed areas
☐	6. Bridge deck preservation and replacement, as long as no character defining features are impacted
☐	7. Non-historic bridge and culvert maintenance, renovation, or total replacement, <u>that may require minor additional right-of-way or easement</u> , including: Choose an item. Choose an item.
☐	8. Historic bridge maintenance activities within the limits of existing right-of-way, including: Choose an item. Choose an item.
☐	9. Stream and/or slope stabilization and restoration activities (including removal of debris or sediment obstructing the natural waterway, or any non-invasive action to restore natural conditions)
Bicycle and Pedestrian Improvements	
☐	10. Construction of pedestrian walkways, sidewalks, sidewalk tip-downs, small passenger shelters, and alterations to facilities or vehicles in order to make them accessible for elderly and handicapped persons
☐	11. Installation of bicycle racks
☐	12. Recreational trail construction
☐	13. Recreational trail maintenance when done on existing alignment
☒	14. Construction of bicycle lanes and shared use paths and facilities within the existing right-of-way
Railroad Improvements	

Appendix B Certification – Activities with Minimal Potential to Cause Effects

☐	15. Modernization, maintenance, and safety improvements of railroad facilities within the existing railroad or highway right-of-way, <u>provided no historic railroad features are impacted</u> , including, but not limited to: Choose an item. Choose an item.
☐	16. In-kind replacement of modern railroad features (i.e. those features that are less than 50 years old)
☐	17. Modernization/modification of railroad/roadway crossings provided that all work is undertaken within the limits of the roadway structure (edge of roadway fill to edge of roadway fill) and no associated character defining features are impacted
Other Improvements	
☐	18. Installation of Intelligent Transportation Systems
☐	19. Acquisition or renewal of scenic, conservation, habitat, or other land preservation easements where no construction will occur
☐	20. Rehabilitation or replacement of existing storm drains.
☒	21. Maintenance of stormwater treatment features and related infrastructure

Please describe how this project is applicable under Appendix B of the Programmatic Agreement.

The proposed project will result in minimal impacts. There are no improvements beyond the toe of slope and into areas identified in Harten's 2018 Archaeological report as potentially sensitive areas. Additionally, there will be no grubbing in the tree clearing areas.

Please submit this Certification Form along with the Transportation RPR, including photographs, USGS maps, design plans and as-built plans, if available, for review. Note: The RPR can be waived for in-house projects, please consult Cultural Resources Program Staff.

Coordination Efforts:

Has an RPR been submitted to NHDOT for this project?	Yes	NHDHR R&C # assigned?	Click here to enter text.
Please identify public outreach effort contacts; method of outreach and date:	A Local Concerns Meeting was held with the City of Lebanon Planning & Zoning Dept. and DuBois & King, Inc. on 05.23.18.		

Finding: (To be filled out by NHDOT Cultural Resources Staff)

☐	No Potential to Cause Effects	☐	No Historic Properties Affected
This finding serves as the Section 106 Memorandum of Effect. No further coordination is necessary.			
☐	This project does not comply with Appendix B. Review will continue under Stipulation VII of the Programmatic Agreement. Please contact NHDOT Cultural Resources Staff to determine next steps.		
NHDOT comments:			
_____ NHDOT Cultural Resources Staff		_____ Date	

Coordination of the Section 106 process should begin as early as possible in the planning phase of the project (undertaking) so as not to cause a delay.

Appendix B Certification – Activities with Minimal Potential to Cause Effects

Project sponsors should not predetermine a Section 106 finding under the assumption a project is limited to the activities listed in Appendix B until this form is signed by the NHDOT Bureau of Environment Cultural Resources Program staff.

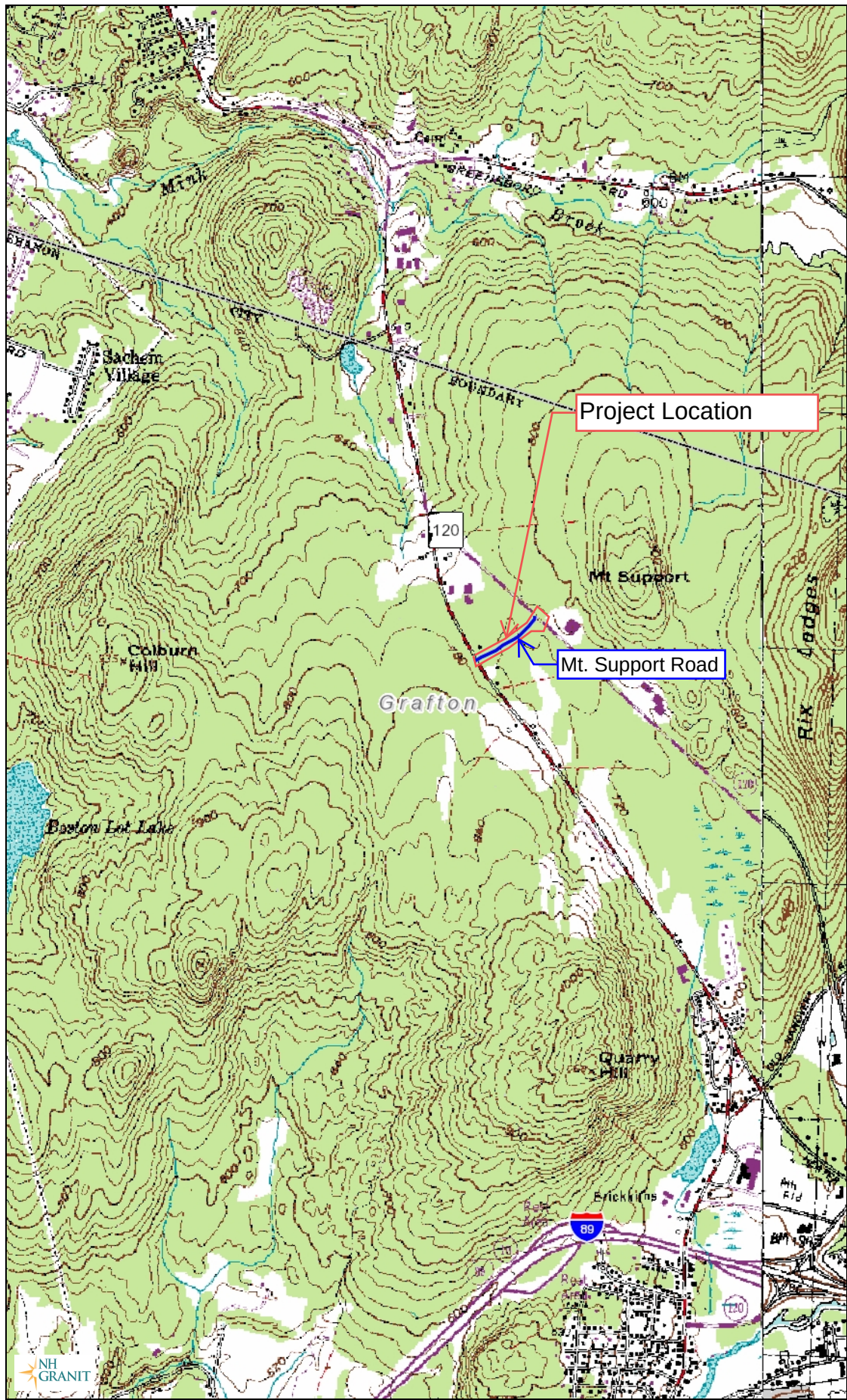
Every project shall be coordinated with, and reviewed by the NHDOT-BOE Cultural Resources Program in accordance with the Programmatic Agreement Among the Federal Highway Administration, the New Hampshire State Historic Preservation Office, the Army Corps of Engineers, New England District, the Advisory Council on Historic Preservation, and the New Hampshire Department of Transportation Regarding the Federal Aid Highway Program in New Hampshire. In accordance with the Advisory Council's regulations, we will continue to consult, as appropriate, as this project proceeds.

If any portion of the project is not entirely limited to any one or a combination of the activities specified in Appendix B (with, or without the inclusion of any activities listed in Appendix A), please continue discussions with NHDOT Cultural Resources staff.

This No Potential to Cause Effect or No Historic Properties Affected project determination is your Section 106 finding, as defined in the Programmatic Agreement.

Should project plans change, please inform the NHDOT Cultural Resources staff in accordance with Stipulation VII of the Programmatic Agreement.

Map by NH GRANIT



Legend

- State
- County
- City/Town

Map Scale

1: 24,000

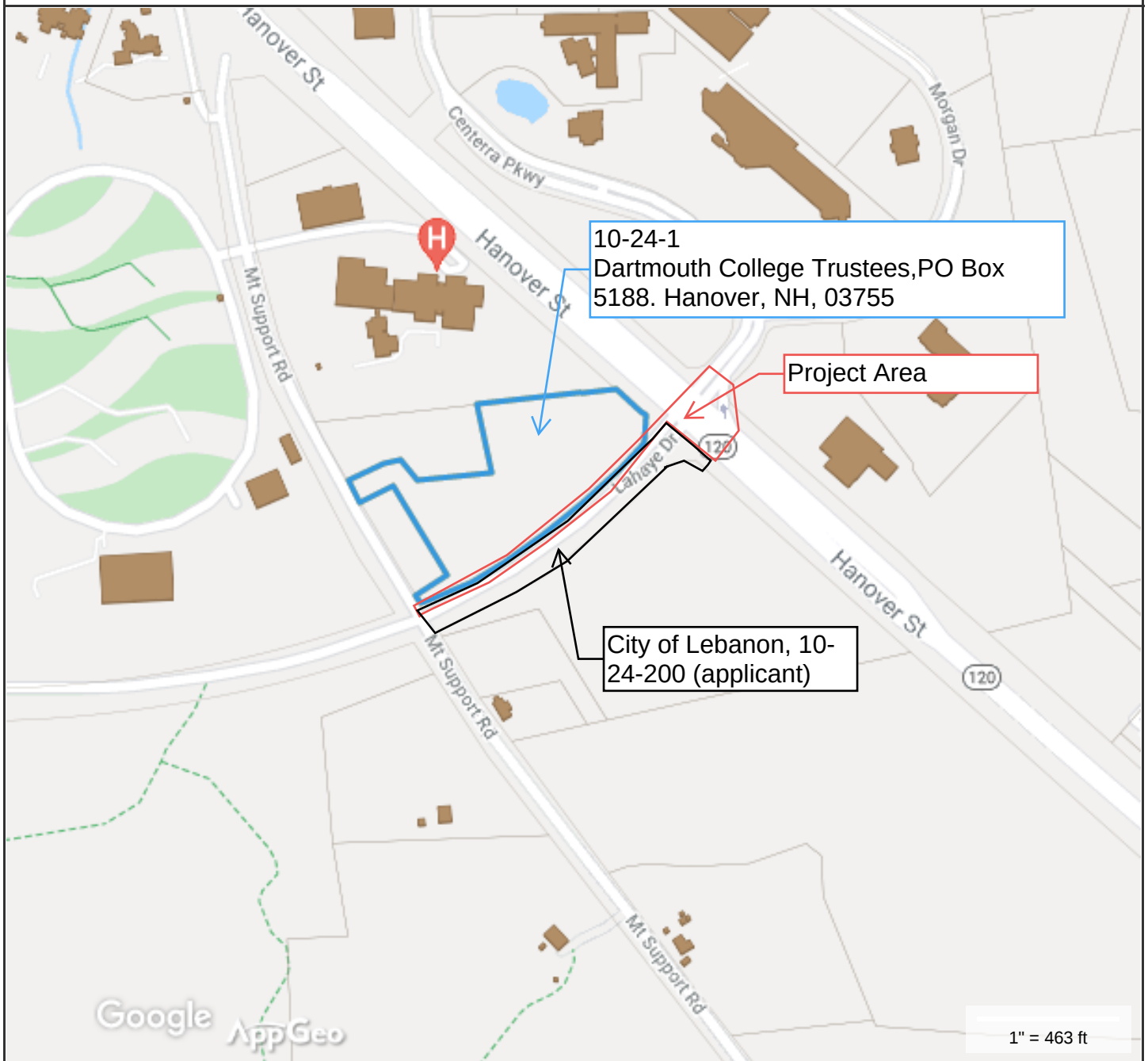
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Map Generated: 4/20/2021



Notes



Tax Map, Lahaye Drive

**Property Information**

Property ID 10-24-200
Location 00 MOUNT SUPPORT RD
Owner DARTMOUTH COLLEGE TRUSTEES



MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

City of Lebanon, NH makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 10/23/2018
 Data updated 11/18/2018

Print map scale is approximate.
 Critical layout or measurement
 activities should not be done using
 this resource.

Lehay Drive Sidewalk Study, Wetlands Photos, May 2018



Wetland, north side, northeast corner, facing north



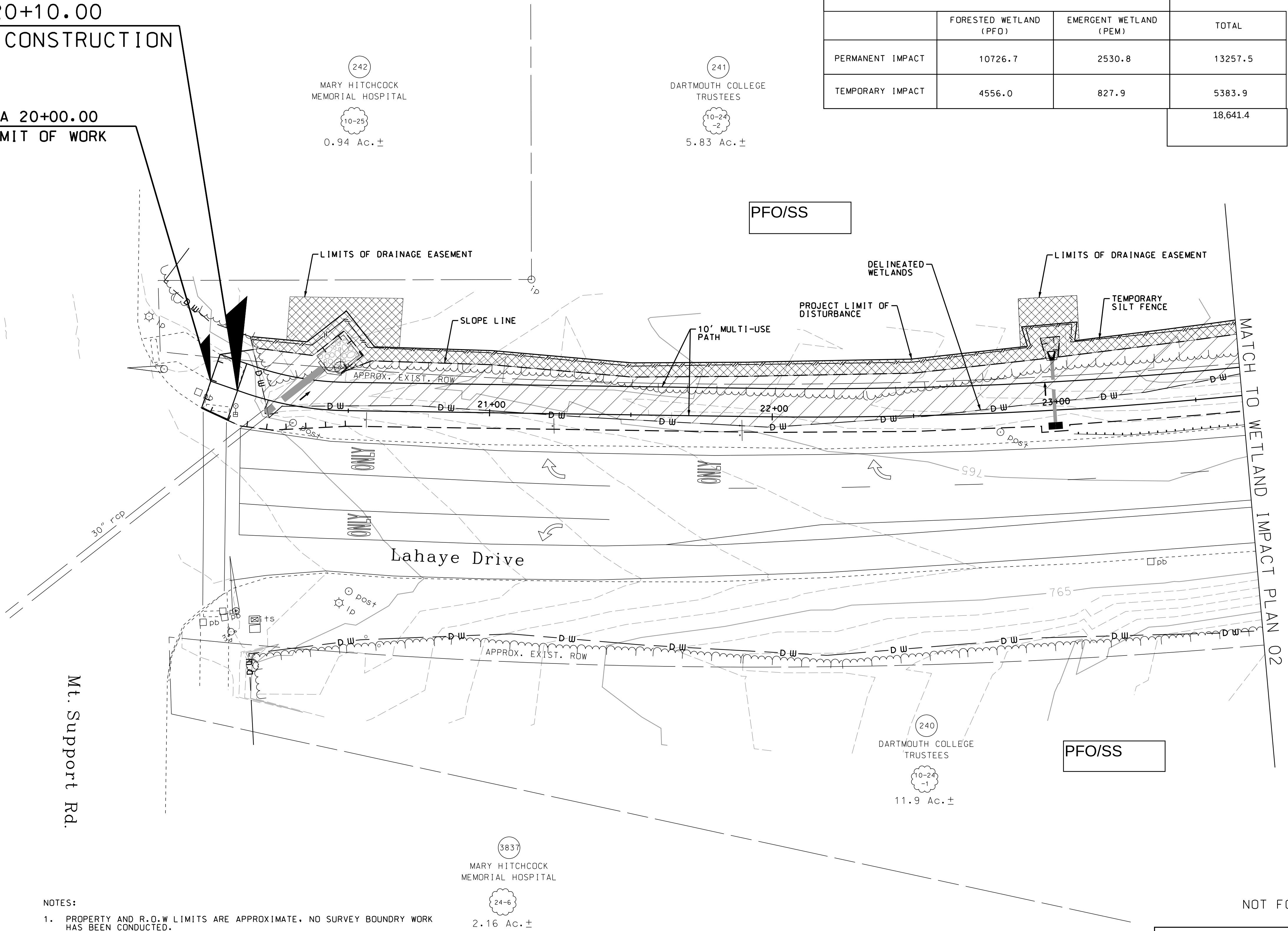
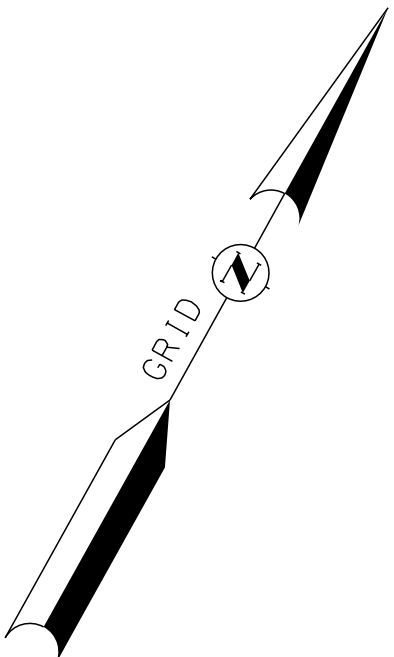
Wetland, north side, SW corner, facing east

REVISIONS AFTER PROPOSAL		STATION		DESCRIPTION	
		NUMBER	DATE	STATION	DESCRIPTION
SDR PROCESSED	NAME1	DATE1	DATE1		
NEW DESIGN	NAME2	DATE2	DATE2		
SHEET CHECKED	NAME3	DATE3	DATE3		
AS BUILT DETAILS			DATE		

STA. 20+10.00
BEGIN CONSTRUCTION

STA 20+00.00
LIMIT OF WORK

WETLAND IMPACT AREAS (SF)			
	FORESTED WETLAND (PFO)	EMERGENT WETLAND (PEM)	TOTAL
PERMANENT IMPACT	10726.7	2530.8	13257.5
TEMPORARY IMPACT	4556.0	827.9	5383.9
			18,641.4



LEGEND

- PERMANENT WETLAND IMPACT AREA
- TEMPORARY WETLAND IMPACT AREA
- FILL SLOPE
- SILT FENCE WITH SUPPORT FENCE
- DELINEATED WETLANDS
- PROJECT LIMIT OF DISTURBANCE
- WETLAND CLASSIFICATION (PEM)

NOTES:

- PROPERTY AND R.O.W LIMITS ARE APPROXIMATE. NO SURVEY BOUNDARY WORK HAS BEEN CONDUCTED.
- WETLAND DELINEATION PERFORMED BY CHARLOTTE W. BRODIE OF DUBOIS & KING ON MAY 10, 2017.
- SURVEY WORK PERFORMED BY DUBOIS & KING ON MARCH 15, 2018.
- THE WETLAND IS PALUSTRINE EMERGENT (PEM) AND PALUSTRINE FORESTED (PFO). THE COMMON WETLAND VEGETATION INCLUDES CATTAILS, SOFT RUSH, SENSITIVE FERN, REED CANARY GRASS, PURPLE LOOSESTRIFE, DARK GREEN BULRUSH, MEADOWSHEET, WILLOW, GREY BIRCH, SHADBUSH, ALDER, RED-OSIER DOGWOOD, BUCKTHORN, AND BALSAM FIR.
- THIS PROJECT AREA IS OUTSIDE THE 100-YR. FLOODPLAIN.

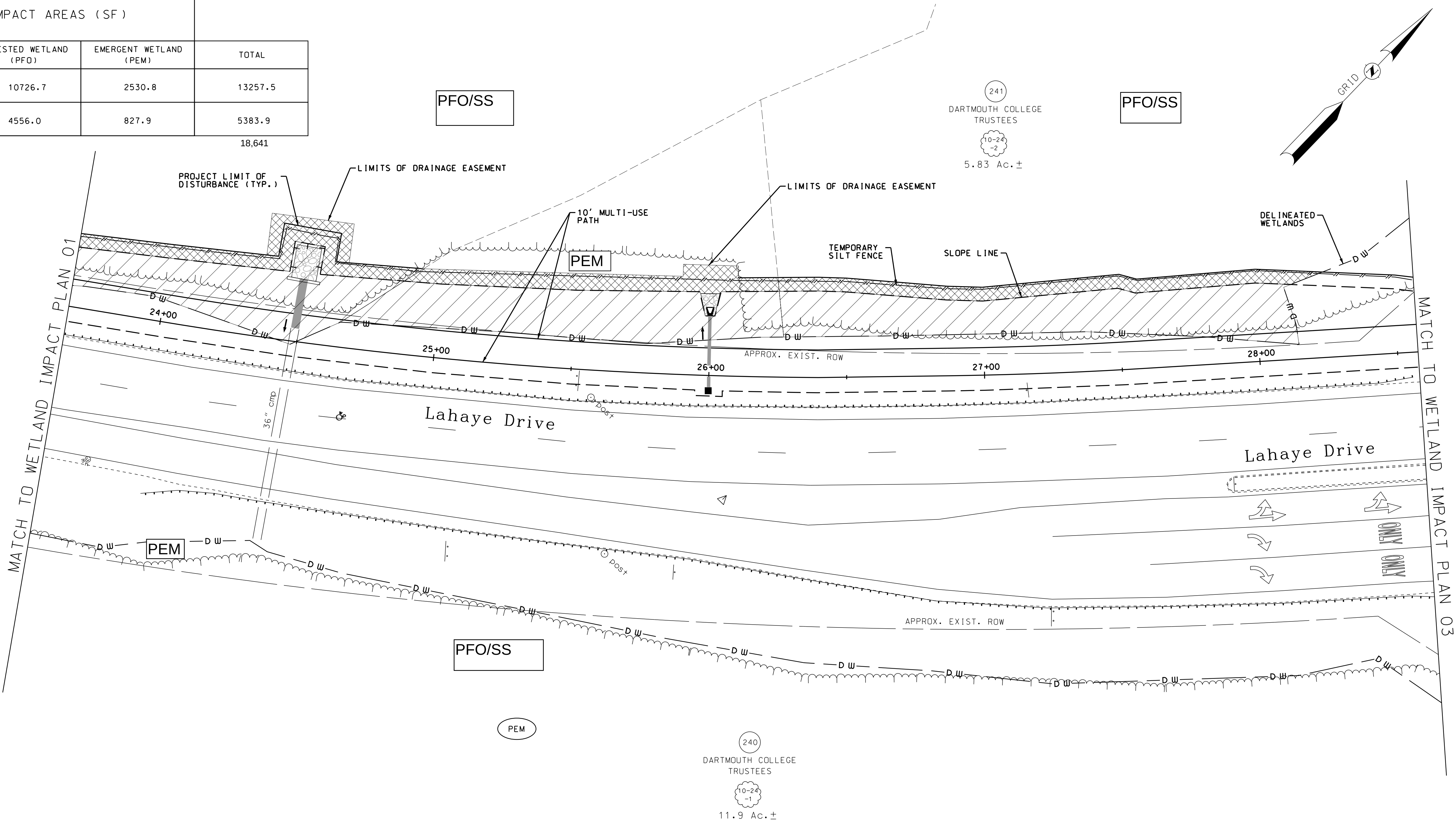


NOT FOR CONSTRUCTION

CITY OF LEBANON, NEW HAMPSHIRE			
WETLAND IMPACTS PLAN 01			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
wetland impacts	16239	1	3

REVISIONS AFTER PROPOSAL				DESCRIPTION			
STATION							
DATE							
NUMBER							
SDR PROCESSED				DATE			
NEW DESIGN				DATE			
SHEET CHECKED				DATE			
AS BUILT DETAILS				DATE			

WETLAND IMPACT AREAS (SF)			
	FORESTED WETLAND (PFO)	EMERGENT WETLAND (PEM)	TOTAL
PERMANENT IMPACT	10726.7	2530.8	13257.5
TEMPORARY IMPACT	4556.0	827.9	5383.9
	18,641		



LEGEND

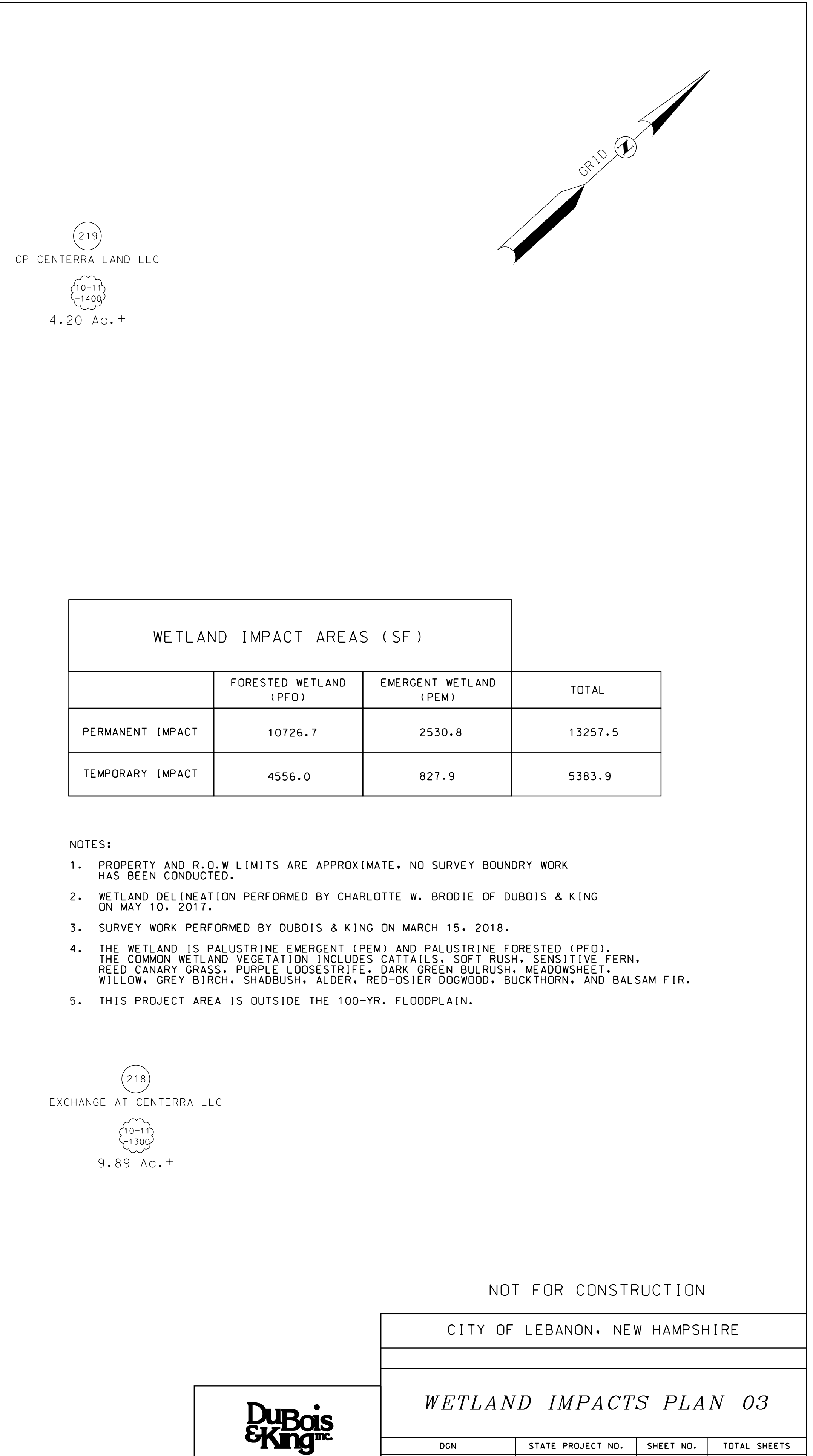
- PERMANENT WETLAND IMPACT AREA
- TEMPORARY WETLAND IMPACT AREA
- FILL SLOPE
- SILT FENCE WITH SUPPORT FENCE
- DELINEATED WETLANDS
- PROJECT LIMIT OF DISTURBANCE
- WETLAND CLASSIFICATION LIMITS
- WETLAND CLASSIFICATION

- NOTES:
- PROPERTY AND R.O.W LIMITS ARE APPROXIMATE. NO SURVEY BOUNDRY WORK HAS BEEN CONDUCTED.
 - WETLAND DELINEATION PERFORMED BY CHARLOTTE W. BRODIE OF DUBOIS & KING ON MAY 10, 2017.
 - SURVEY WORK PERFORMED BY DUBOIS & KING ON MARCH 15, 2018.
 - THE WETLAND IS PALUSTRINE EMERGENT (PEM) AND PALUSTRINE FORESTED(PFO). THE COMMON WETLAND VEGETATION INCLUDES CATTAILS, SOFT RUSH, SENSITIVE FERN, REED CANARY GRASS, PURPLE LOOSESTRIPE, DARK GREEN BULRUSH, MEADOWSHEET, WILLOW, GREY BIRCH, SHADBUSH, ALDER, RED-OSIER DOGWOOD, BUCKTHORN, AND BALSAM FIR.
 - THIS PROJECT AREA IS OUTSIDE THE 100-YR. FLOODPLAIN.

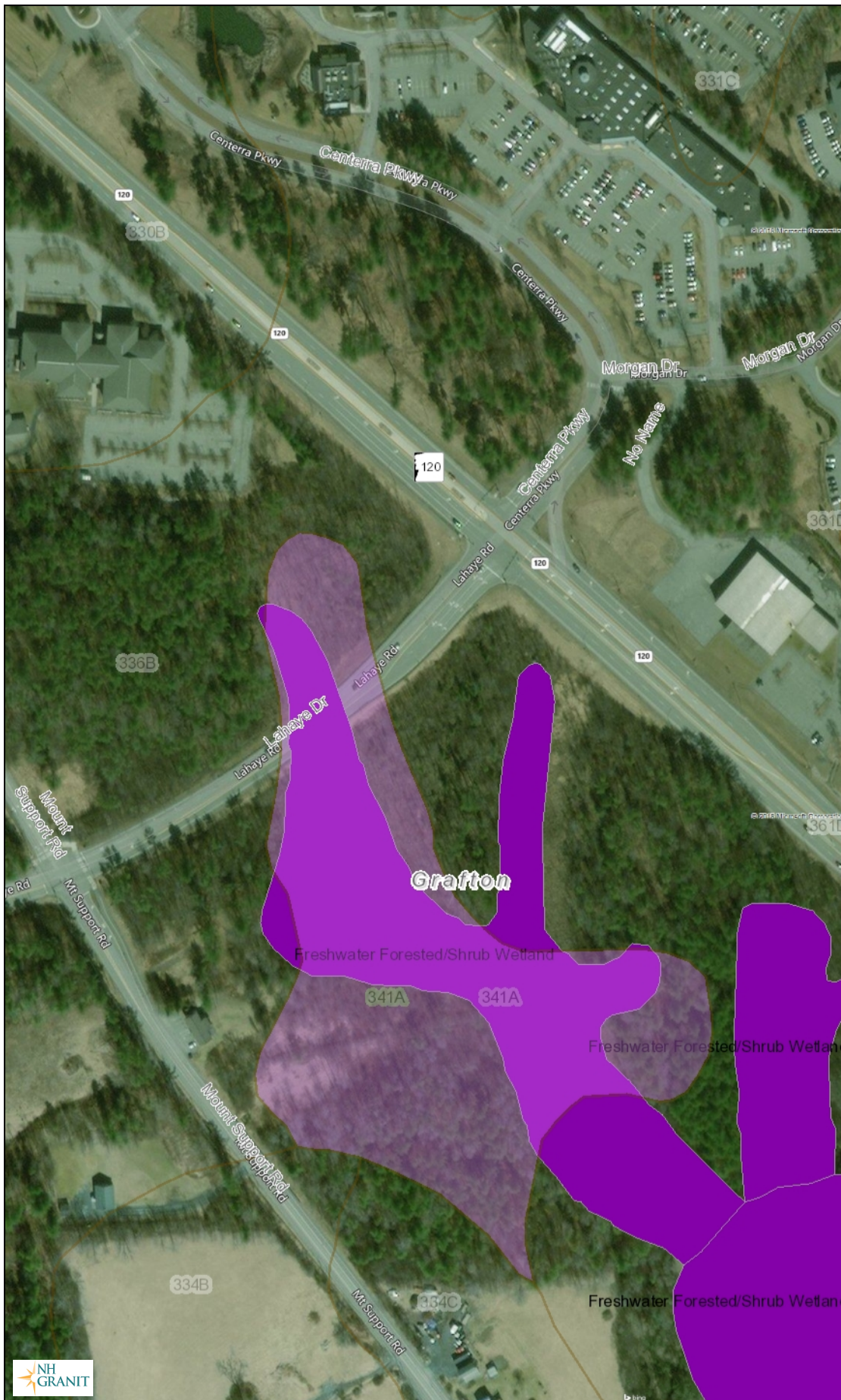


NOT FOR CONSTRUCTION

CITY OF LEBANON, NEW HAMPSHIRE			
WETLAND IMPACTS PLAN 02			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
wetland impacts	16239	2	3



Map by NH GRANIT



Legend

- State
- County
- City/Town
- Conservation and Public Land
- Soil Series
- Hydric Soils
- Stream Centerlines
 - Perennial Stream
 - Intermittent Stream
- Artificial Paths
- Water Bodies
 - Lake/Pond
 - Reservoir
 - Estuary
 - Swamp/Marsh
- Other Water Features
 - River
 - Spillway
 - Inundation Area
 - Dam/Weir
 - Canal/Ditch
 - Rapids
- Wetlands
 - Estuarine and Marine Deepwater
 - Estuarine and Marine Wetland
 - Freshwater Emergent Wetland
 - Freshwater Forested/Shrub Wetland
 - Freshwater Pond
 - Lake
 - Other
 - Riverine

Map Scale

1: 3,247

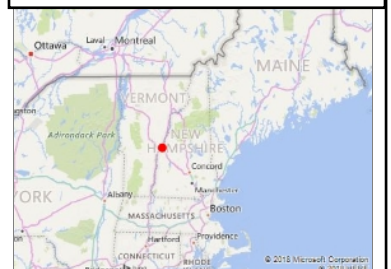
© NH GRANIT, www.granit.unh.edu

Map Generated: 5/9/2018



Notes

NH GRANIT MAP





Community
Landowners
Natural Resource Professionals
Conservation
Exploring Our Forests

NHB DataCheck Tool: Project Mapping

Base Map: Topographic ▼

Map mode: ☐ Navigation
☒ Drawing (polygons)

Map one or more polygons that outline the entire area that could be disturbed by your project, including temporary disturbances such as construction-vehicle staging areas.

Add Shapefile

ID	AREA
✕ 1	4.7 acres
Total: 4.7 acres	

Once you have accurately mapped your project boundaries you may submit them for a DataCheck.

DataCheck

Results: No known records

There are no known records in the vicinity of the area(s) you mapped. You can request an official report of these results which will be valid for a period of one year from today.

Click on Next to continue.

Back

Next

Cancel

Map Scale: 1:9,027.977





United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
<http://www.fws.gov/newengland>



IPaC Record Locator: 251-101704361

April 30, 2021

Subject: Consistency letter for the 'Lahaye Drive Multi-Use Path' project (no current TAILS record) under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **Lahaye Drive Multi-Use Path** (Proposed Action) may rely on the concurrence provided in the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures, and may affect, but is not likely to adversely affect the endangered Indiana bat (*Myotis sodalis*) and/or the threatened Northern long-eared bat (*Myotis septentrionalis*). Consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required.

This "may affect - not likely to adversely affect" determination becomes effective when the lead Federal action agency or designated non-federal representative requests the Service rely on the PBO to satisfy the agency's consultation requirements for this project.

Please provide this consistency letter to the lead Federal action agency or its designated non-federal representative with a request for review, and as the agency deems appropriate, to submit for concurrence verification through the IPaC system. The lead Federal action agency or designated non-federal representative should log into IPaC using their agency email account and click "Search by record locator". They will need to enter the record locator **251-101704361**.

For Proposed Actions that include bridge/structure removal, replacement, and/or maintenance activities: If your initial bridge/structure assessments failed to detect Indiana bats, but you later detect bats during construction, please submit the Post Assessment Discovery of Bats at Bridge/Structure Form (User Guide Appendix E) to this Service Office. In these instances, potential incidental take of Indiana bats may be exempted provided that the take is reported to the Service.

If the Proposed Action may affect any other federally-listed or proposed species and/or designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please advise the lead Federal action agency accordingly.

Project Description

The following project name and description was collected in IPaC as part of the endangered species review process.

Name

Lahaye Drive Multi-Use Path

Description

Construct a 10'-wide Multi-Use Path along the north side of Lahaye Drive between Mt. Support Rd and NH Rt 120, and construct minor improvements within the existing Lahaye Drive/NH Rt 120 intersection.

Determination Key Result

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the endangered Indiana bat and/or the threatened Northern long-eared bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

Qualification Interview

1. Is the project within the range of the Indiana bat^[1]?

[1] See [Indiana bat species profile](#)

Automatically answered

No

2. Is the project within the range of the Northern long-eared bat^[1]?

[1] See [Northern long-eared bat species profile](#)

Automatically answered

Yes

3. Which Federal Agency is the lead for the action?

A) *Federal Highway Administration (FHWA)*

4. Are *all* project activities limited to non-construction^[1] activities only? (examples of non-construction activities include: bridge/abandoned structure assessments, surveys, planning and technical studies, property inspections, and property sales)

[1] Construction refers to activities involving ground disturbance, percussive noise, and/or lighting.

No

5. Does the project include *any* activities that are **greater than** 300 feet from existing road/rail surfaces^[1]?

[1] Road surface is defined as the actively used [e.g. motorized vehicles] driving surface and shoulders [may be pavement, gravel, etc.] and rail surface is defined as the edge of the actively used rail ballast.

No

6. Does the project include *any* activities **within** 0.5 miles of a known Indiana bat and/or NLEB hibernaculum^[1]?

[1] For the purpose of this consultation, a hibernaculum is a site, most often a cave or mine, where bats hibernate during the winter (see suitable habitat), but could also include bridges and structures if bats are found to be hibernating there during the winter.

No

7. Is the project located **within** a karst area?

No

8. Is there *any* suitable^[1] summer habitat for Indiana Bat or NLEB **within** the project action area^[2]? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the [national consultation FAQs](#).

Yes

9. Will the project remove *any* suitable summer habitat^[1] and/or remove/trim any existing trees **within** suitable summer habitat?

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

Yes

10. Will the project clear more than 20 acres of suitable habitat per 5-mile section of road/rail?

No

11. Have presence/probable absence (P/A) summer surveys^{[1][2]} been conducted^{[3][4]} **within** the suitable habitat located within your project action area?

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] Presence/probable absence summer surveys conducted within the fall swarming/spring emergence home range of a documented Indiana bat hibernaculum (contact local Service Field Office for appropriate distance from hibernacula) that result in a negative finding requires additional consultation with the local Service Field Office to determine if clearing of forested habitat is appropriate and/or if seasonal clearing restrictions are needed to avoid and minimize potential adverse effects on fall swarming and spring emerging Indiana bats.

[3] For projects within the range of either the Indiana bat or NLEB in which suitable habitat is present, and no bat surveys have been conducted, the transportation agency will assume presence of the appropriate species. This assumption of presence should be based upon the presence of suitable habitat and the capability of bats to occupy it because of their mobility.

[4] Negative presence/probable absence survey results obtained using the [summer survey guidance](#) are valid for a minimum of two years from the completion of the survey unless new information (e.g., other nearby surveys) suggest otherwise.

No

12. Does the project include activities **within documented NLEB habitat**^{[1][2]}?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

13. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors?

Yes

14. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors occur?

B) During the inactive season

15. Will *any* tree trimming or removal occur **within** 100 feet of existing road/rail surfaces?

Yes

16. Will *any* tree trimming or removal occur **between** 100-300 feet of existing road/rail surfaces?

No

17. Are *all* trees that are being removed clearly demarcated?

Yes

18. Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing **permanent** lighting?

No

19. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?

No

20. Does the project include slash pile burning?

No

21. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?

No

22. Does the project include the removal, replacement, and/or maintenance of *any* structure other than a bridge? (e.g., rest areas, offices, sheds, outbuildings, barns, parking garages, etc.)

No

23. Will the project involve the use of **temporary** lighting *during* the active season?
No
24. Will the project install new or replace existing **permanent** lighting?
Yes
25. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **permanent** lighting will be installed or replaced?
Yes
26. Does the project include percussives or other activities (**not including tree removal/trimming or bridge/structure work**) that will increase noise levels above existing traffic/background levels?
No
27. Are *all* project activities that are **not associated with** habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?
- Examples: lining roadways, unlighted signage , rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.
- Yes*
28. Will the project raise the road profile **above the tree canopy**?
No
29. Are the project activities that are not associated with habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives consistent with a No Effect determination in this key?
Automatically answered
Yes, other project activities are limited to actions that DO NOT cause any additional stressors to the bat species as described in the BA/BO
30. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?
Automatically answered
Yes, because the tree removal/trimming that occurs outside of the NLEB's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.
31. **General AMM 1**
Will the project ensure *all* operators, employees, and contractors working in areas of known or presumed bat habitat are aware of *all* FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures?
Yes

32. **Tree Removal AMM 1**

Can *all* phases/aspects of the project (e.g., temporary work areas, alignments) be modified, to the extent practicable, to avoid tree removal^[1] in excess of what is required to implement the project safely?

Note: Tree Removal AMM 1 is a minimization measure, the full implementation of which may not always be practicable. Projects may still be NLAA as long as Tree Removal AMMs 2, 3, and 4 are implemented and LAA as long as Tree Removal AMMs 3, 5, 6, and 7 are implemented.

[1] The word “trees” as used in the AMMs refers to trees that are suitable habitat for each species within their range. See the USFWS’ current summer survey guidance for our latest definitions of suitable habitat.

Yes

33. **Tree Removal AMM 3**

Can tree removal be limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits)?

Yes

34. **Tree Removal AMM 4**

Can the project avoid cutting down/removal of *all* (1) **documented**^[1] Indiana bat or NLEB roosts^[2] (that are still suitable for roosting), (2) trees **within** 0.25 miles of roosts, and (3) documented foraging habitat any time of year?

[1] The word documented means habitat where bats have actually been captured and/or tracked.

[2] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry triangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

Yes

35. **Lighting AMM 2**

Does the lead agency use the BUG (Backlight, Uplight, and Glare) system developed by the Illuminating Engineering Society^{[1][2]} to rate the amount of light emitted in unwanted directions?

[1] Refer to [Fundamentals of Lighting - BUG Ratings](#)

[2] Refer to [The BUG System—A New Way To Control Stray Light](#)

Yes

36. **Lighting AMM 2**

Will the **permanent** lighting be designed to be as close to 0 for all three BUG ratings as possible, with a priority of "uplight" of 0 and "backlight" as low as practicable?

Yes

Project Questionnaire

1. Have you made a No Effect determination for *all* other species indicated on the FWS IPaC generated species list?

N/A

2. Have you made a May Affect determination for *any* other species on the FWS IPaC generated species list?

N/A

3. How many acres^[1] of trees are proposed for removal between 0-100 feet of the existing road/rail surface?

[1] If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

0.25

Avoidance And Minimization Measures (AMMs)

This determination key result includes the commitment to implement the following Avoidance and Minimization Measures (AMMs):

TREE REMOVAL AMM 2

Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and **outside of documented** roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed.

LIGHTING AMM 2

When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable.

TREE REMOVAL AMM 3

Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

TREE REMOVAL AMM 4

Do not remove **documented** Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or **documented** foraging habitat any time of year.

GENERAL AMM 1

Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs.

TREE REMOVAL AMM 1

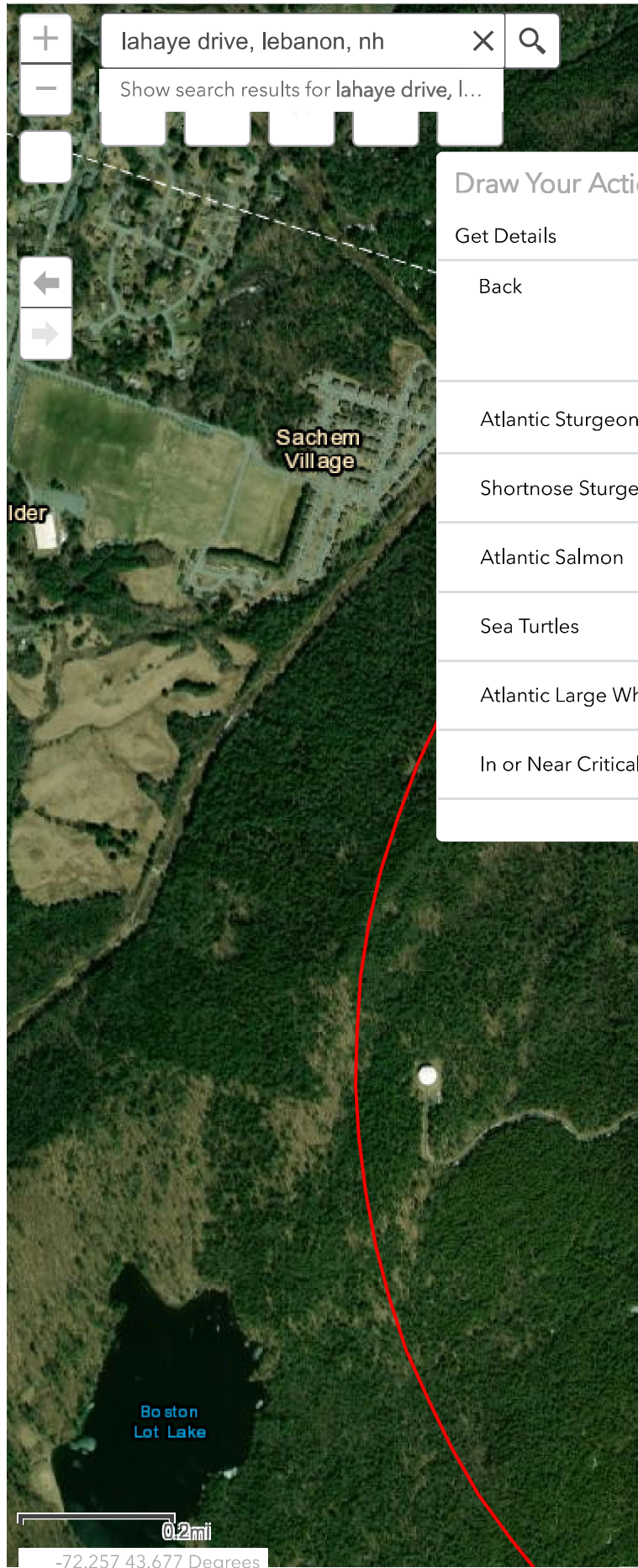
Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal.

Determination Key Description: FHWA, FRA, FTA Programmatic Consultation For Transportation Projects Affecting NLEB Or Indiana Bat

This key was last updated in IPaC on April 22, 2021. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) for the endangered **Indiana bat** (*Myotis sodalis*) and the threatened **Northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's [February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects](#). The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.



+

lahaye drive, lebanon, nh

×

Q

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Show search results for lahaye drive, l...

More Information

Welcome!

Draw Your Action Area

Get Details

Back	Area : 2,350.95 acres	the ESA
Atlantic Sturgeon	(0)	on the
Shortnose Sturgeon	(0)	id-mid-
Atlantic Salmon	(0)	al-habitat-
Sea Turtles	(0)	experience
Atlantic Large Whales	(0)	d at the
In or Near Critical Habitat	(0)	s Office
		vide this
		ESA S7
		agencies
		under the

Using these data layers, action agencies can better determine whether the activities they plan to authorize, fund, or carry out may affect listed species or designated critical habitat under our jurisdiction (Maine through Virginia).

We plan to update the spatial and temporal data reflecting life stages and behaviors as new data from peer-reviewed literature, research reports, and field observations become available.

About the Data

Use of the ESA S7 Mapper does NOT replace the Section 7 consultation process; it is a first step in determining if a proposed federal action overlaps with listed species or critical habitat presence.

The polygons representing our listed species' presence and behaviors may lack the spatial resolution to capture your action area. We recommend you extend your action area into the nearest major waterway (e.g., main channel of a river), to be certain that we do not expect any listed species or critical habitat to be in your action area.

2020 HIGHEST RANKED WILDLIFE HABITAT BY ECOLOGICAL CONDITION

 Highest Ranked Habitat in New Hampshire

 Highest Ranked Habitat in the Biological Region

Biological region = TNC ecoregional subsection for terrestrial habitats or Aquatic Resource Mitigation region for wetlands and floodplain forest.

 Supporting Landscapes

 Conservation or public

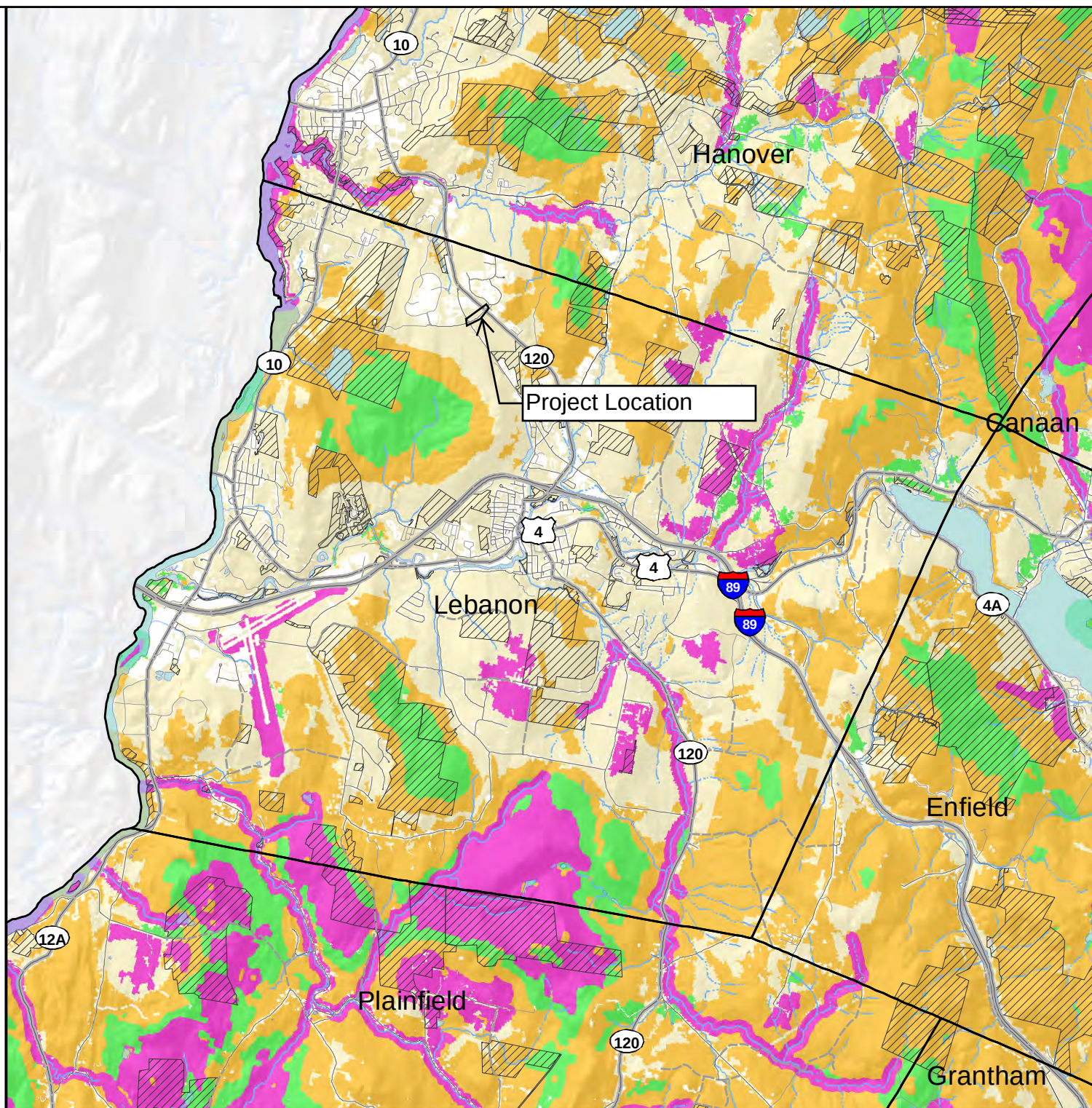
Base map data provided by NH GRANIT at UNH May 2020. Intended for planning use only.



Sept. 2015, spatial data Apr. 2020

0 2 4 Kilometers

0 1 2 Miles



Wildlife and Vegetation Diversity Lists
Lahaye Drive Multi-Use Path, Lebanon, NH

Wildlife

Observed: paper wasp nest attached to cattails

Possible/probable: red-winged blackbirds, green frogs, tree frogs, wood frogs, mink, fisher, fox, voles, coyote

Vegetation

Red maple
Green ash
American elm
Balsam fir
Shadbush
Grey birch
Alder
Red-osier dogwood
Willow
Meadowsweet
Glossy buckthorn
Cattails
Sedges
Giant goldenrod
Soft rush
Reed canary grass
Purple loosestrife
Dark-green bulrush

Charlotte Brodie <cbrodie@dubois-king.com>

FW: Lebanon TAP project: multi-use path on Lahaye Drive & Dartmouth easement

Rebecca Owens <Rebecca.Owens@lebanonnh.gov>

Tue, May 4, 2021 at 10:01 AM

To: Charlotte Brodie <cbrodie@dubois-king.com>

FYI

[DARTMOUTH COLLEGE TRUSTEES](#)

PO BOX 5188

HANOVER NH 03755

[DANIEL J JUSTYNSKI, RE DIRECTOR](#)

From: David Brooks <David.Brooks@lebanonnh.gov>**Sent:** Friday, January 8, 2021 4:00 PM**To:** Rebecca Owens <Rebecca.Owens@lebanonnh.gov>**Subject:** RE: Lebanon TAP project: multi-use path on Lahaye Drive & next steps

Rebecca

I just talked with Dan Justynski at Dartmouth College. He had stashed your email in a "Lebanon" folder awaiting subsequent communication, but our call brought it back to the forefront. He indicated that Dartmouth would be willing to forego the easement fees in order to help reduce the overall project cost and accelerate the completion of the project.

Now we just need to have D&K and VHB coordinate efforts as we don't want to record easements and then have the TAP path pushed beyond the limits of that easement. I told Dan that you would follow-up with next steps when we're ready to take them.

Since he's got a lot of projects on his plate, maybe next time we call first and then follow-up with an email.

*David***David R. Brooks**

DIRECTOR OF PLANNING & ZONING

CITY OF LEBANON

From: Rebecca Owens
Sent: Monday, November 9, 2020 4:10 PM
To: Daniel J. Justynski <Daniel.J.Justynski@dartmouth.edu>
Cc: Patrick F. O'Neill <Patrick.F.O'Neill@dartmouth.edu>; David Brooks <David.Brooks@lebanonnh.gov>
Subject: Lebanon TAP project: multi-use path on Lahaye Drive & next steps

Good afternoon,

I am reaching out to you, as a representative of Dartmouth College's Real Estate Office, to share a transportation project update. The City of Lebanon previously communicated with Ellen Arnold about the study, design and construction of a multi-use path on Lahaye Drive (between Mt. Support Road and Route 120 – see attached "BOUNDARY" aerial view for approximate location). One of our last emails is below.

The project was funded in the state's Ten Year Plan for transportation and includes local match requirements; we have progressed the project through Engineering Study and Preliminary Design stages, the latter which is undergoing an amendment. Next steps include final design, right-of-way and easements, bid preparation for construction, bid, and construction. The Oct. 2018 Engineering Study report that Dubois & King prepared for the City pursuant to the NHDOT project requirements, including stakeholder outreach meetings with DHMC and the College, determined that Alternative 2 is the preferred design. This design consists of a 10-foot wide multi-use path on the north side of Lahaye Drive along a vegetated embankment, with associated grading, drainage improvements, and grass shoulder with fencing. The City is working with NHDES on wetland mitigation for approximately 17,500sf. The state's plan has changed the construction year to 2023 however we are working with NHDOT to complete the final design and other consultant work as soon as possible, as construction dates may be adjusted.

Dartmouth College owns parcels on both sides of the project bounds and is a project partner; the direct funding contribution (to address Ellen's question below) has been completed and next steps with the College involve easements. According to the Engineering Study:

The existing right-of-way at Mt. Support Road, Centerra Parkway and Lahaye Drive is City-owned, and maintained. The existing right-of-way along NH Route 120 is State-owned, and maintained. The right-of-way for Lahaye Drive and NH Route 120 is controlled access. The limits of right-of-way have been mapped based on research performed by a Licensed New Hampshire Professional Land Surveyor. **It is anticipated that permanent path easements will be required...Drainage will need to be modified to facilitate construction of the path. As such, permanent drainage easements will be required. For temporary easements, it is anticipated that slope and construction will be required.**

The consultant will prepare a survey sketch with metes and bounds. They will tell us the total square footage and types of easements, between permanent, drainage/slope and construction (if outside the permanent easement bounds). The City Engineer prepares draft easement documents. We will then share this information with the City assessor to determine the compensation value. At that point, which might not be until well into 2021, the City will connect with you/the College to review this information. Our hope, as part of Dartmouth's cost-sharing coordination to date, is for the College to consider waiving recompense for the easements. The final step will be to record the executed easements and communications with the College.

Again, there is no paperwork in hand to review at this point but I wanted to get you up to speed as we re-initiate the project (and bid the delays of 2020 farewell!). Additional information is available and will be updated here once we have further detail from NHDOT: <https://lebanonnh.gov/1192/Lahaye-Drive-Path>. We will continue to apprise Dartmouth College of project advances and needs but if you have any questions in the meantime, please let me know.

Sincerely,

Rebecca

Rebecca Owens, MBA, LEED AP

ASSOCIATE PLANNER, PLANNING AND DEVELOPMENT DEPT.

[City of Lebanon](#)

[51 N. Park Street](#)

[Lebanon, NH 03766](#)

Direct: 603-442-6138 / Planning Office: 603-448-1457 x6138

Rebecca.Owens@LebanonNH.gov

[CURIOUS ABOUT THE CITY'S MASTER PLAN IMPLEMENTATION? LEARN MORE HERE.](#)

 Please consider the environment before printing this e-mail.

From: Ellen L. Arnold [Ellen.L.Arnold@dartmouth.edu]

Sent: Wednesday, February 07, 2018 2:11 PM

To: Owens, Rebecca

Cc: Brooks, David

Subject: RE: Lebanon TAP project FY18 contribution

Hi Rebecca,

Just tracking this down internally. Is this the last payment ? I don't recall that it was on going.

Hope you get home safe and sound ! Beautiful out of my window, but making me anxious to get home as well.

Best regards,

Ellen

Dartmouth

Ellen Arnold | Director, Dartmouth Real Estate |

Associate General Counsel for Campus Services

603-646-2654

From: Owens, Rebecca [<mailto:Rebecca.Owens@lebcity.com>]
Sent: Wednesday, February 07, 2018 1:05 PM
To: Ellen L. Arnold <Ellen.L.Arnold@dartmouth.edu>
Cc: Brooks, David <David.Brooks@lebcity.com>
Subject: Lebanon TAP project FY18 contribution

Dear Ellen,

The snow-filled view from your offices must be a welcome sight right now! In the meantime, we're organizing spring projects, including commencement of the scope of work for the NHDOT-TAP grant project along Lahaye Drive. The contractor has notice to proceed with surveying for the area of pedestrian and bicyclist improvements between Mt. Support Road and Route 120 and the City is prepared to disburse funds for their services, anticipating that we fulfill continued support from project partners and include the project in upcoming capital improvements budgeting. The authorized preliminary engineering phases include \$73,106 of the approximately \$800,000 total project design and engineering costs and are scheduled for completion in mid-2019. I working with David Brooks, cc'd, to take over project oversight and partner communications for the City.

On that note, thank you again for facilitating Dartmouth College's commitment in July 2016 of \$20,000 to the project in FY17, which we received, and of \$20,000 for FY18, which we would like to follow up on at this time. The College's financial contribution supports an important need for the community and projected future growth at this location.

Are you still the point of contact for the project, and if so, has the College scheduled provisions for the second portion of its commitment? Please let me know if you need any information to assist with related coordination or would like a detailed project update by phone or in person. We have not received a pre-design conference date to review the project with the consultant, which will be a local meeting, but can keep you apprised.

Kind regards,

Rebecca

Rebecca Owens, MBA, LEED AP

ASSOCIATE PLANNER, PLANNING AND DEVELOPMENT DEPT.

[CITY OF LEBANON](#)

[51 N. Park Street](#)

CITY HALL, 1ST FL.

LEBANON, NH 03766

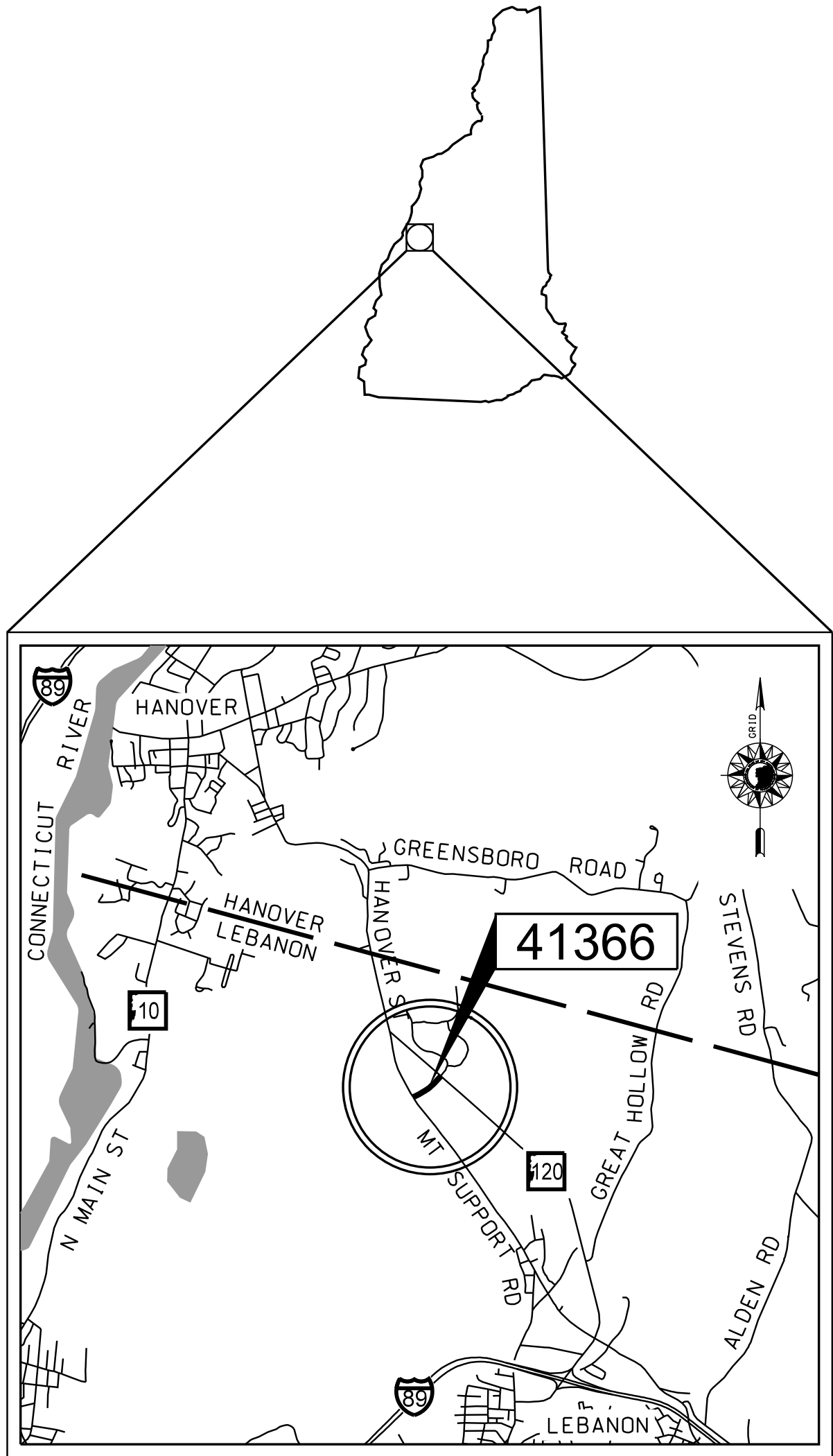
603-448-1457 x1473

REBECCA.OWENS@LEBCITY.COM

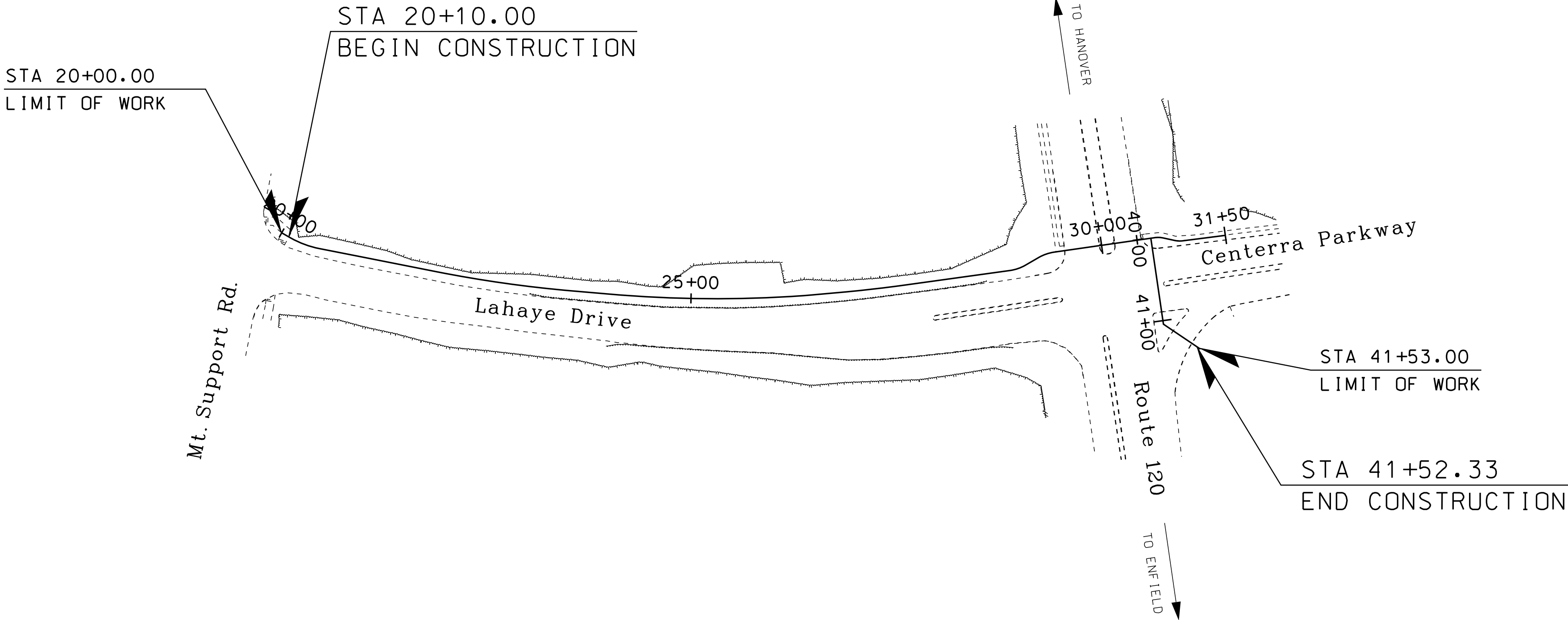
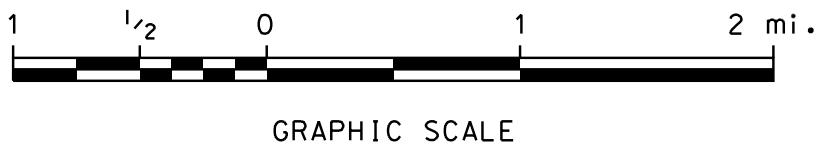
[CURIOUS ABOUT THE CITY'S MASTER PLAN IMPLEMENTATION? LEARN MORE HERE.](#)

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
CONSTRUCTION PLANS
TRANSPORTATION ALTERNATIVES PROGRAM (TAP)

FHWA PROJECT NO. X-A004(617)
NH PROJECT NO. 41366
LAHAYE DRIVE MULTI-USE PATH



LOCATION MAP



CITY OF LEBANON
COUNTY OF GRAFTON
SCALE: 1" = 100'

PRELIMINARY PLANS
REVIEW SUBMISSION
SUBJECT TO CHANGE
DATE 1/7/2021

NOT FOR CONSTRUCTION

CITY OF LEBANON, NEW HAMPSHIRE

DUBOIS & KING PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
624260	41366	1	27

DRAWN BY GMC
CHECKED BY JCH
DATE 1/7/2021
DATE 1/7/2021

DuBois & King inc.

ENGINEERING • PLANNING •
MANAGEMENT • DEVELOPMENT
18 CONSTITUTION DRIVE
BEDFORD, NH 03110
TEL: (603) 637-1043
FAX: (603) 783-7101
www.dubois-king.com
LACONIA, NH
SPRINGFIELD, VT
RANDOLPH, VT
SOUTH BURLINGTON, VT
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SDR PROCESSED		GMC	DATE	1/7/2021
			DATE	1/7/2021
			DATE	
			DATE	
NEW DESIGN		JCH	DATE	1/7/2021
			DATE	
			DATE	
			DATE	
SHEET CHECKED			DATE	
			DATE	
			DATE	
			DATE	
AS BUILT DETAILS			DATE	
			DATE	
			DATE	
			DATE	

REVISIONS AFTER PROPOSAL		NUMBER	DATE	STATION	STATION	DESCRIPTION

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	TITLE PAGE
2	INDEX OF SHEETS AND GENERAL NOTES
3-4	STANDARD SYMBOLS
5	TYPICAL SECTION
6	SUMMARY OF QUANTITIES
7-9	GENERAL PLANS
10	PROFILE
11	SIGNALIZATION PLAN
12-24	CROSS SECTIONS
25-27	RIGHT-OF-WAY PLANS

GENERAL NOTES

- 1

FOR STANDARD PLANS, SEE "STANDARD PLANS FOR ROAD CONSTRUCTION" DATED 2010 (A BOUND BOOK).
- 2

HIGH TENSION OVERHEAD TRANSMISSION LINES ARE LOCATED THROUGHOUT THE PROJECT WITH CROSSINGS AT VARIOUS LOCATIONS AND RUNNING ALONG THE ROAD THROUGHOUT THE PROJECT EVEN ON REGULAR POLES. THE CONTRACTOR IS ADVISED THAT EXTREME CAUTION WILL BE REQUIRED IN THE OPERATION OF EQUIPMENT, ESPECIALLY CRANES AND PILE DRIVING EQUIPMENT.
- 3

MODIFY SUPERELEVATION ON EXISTING CURVES BY THE USE OF A LEVELING COURSE TO THE RATES INDICATED ON THE PLANS OR AS ORDERED.
- 4

EXISTING DELINEATORS AND WITNESS MARKERS THAT ARE REMOVED AND DETERMINED BY THE ENGINEER TO BE IN ACCEPTABLE CONDITION SHALL BE RESET (SUBSIDIARY). ADDITIONAL DELINEATORS AND WITNESS MARKERS ORDERED WILL BE PAID UNDER THE APPROPRIATE ITEMS OF THE CONTRACT.
- 5

NO EXISTING MONUMENTS, BOUNDS, OR BENCHMARKS SHALL BE DISTURBED WITHOUT FIRST MAKING PROVISIONS FOR RELOCATION.
- 6

PERFORM ALL WORK WITHIN THE EXISTING RIGHT-OF-WAY, UNLESS OTHERWISE SHOWN ON THE PLANS OR AS ORDERED BY THE ENGINEER.
- 7

REMOVE UNPROTECTED PROJECT MARKERS (SUBSIDIARY).
- 8

SURVEY DATA FOR THIS PROJECT WAS COLLECTED BY SDR AND THE FIELD NOTES CAN BE FOUND IN THE FIELD BOOK(S) _____. COORDINATES ARE NEW HAMPSHIRE STATE PLANE COORDINATES OF NAD83, 1986 ADJUSTMENT AND THE BEARINGS ARE GRID. ELEVATIONS ARE REFERENCED TO NGVD 1929.
- 9

QUANTITIES FOR EMBANKMENT AND EXCAVATION FOR SLOPE ROUNDINGS AS SHOWN ON THE TYPICALS HAVE NOT BEEN CALCULATED AND ARE NOT INCLUDED IN THE QUANTITY SUMMARIES, AND ARE CONSIDERED SUBSIDIARY TO THE APPROPRIATE 203 ITEMS.

THE FOLLOWING GENERAL NOTES WILL BE USED ON THIS PROJECT:											
1			4	5	6	7		9			

NOT FOR CONSTRUCTION

CITY OF LEBANON, NEW HAMPSHIRE			
<i>INDEX OF SHEETS AND GENERAL NOTES</i>			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
index_sheet	41366	2	27



REVISION DATE
11-21-14

GENERAL

EDGE OF PAVEMENT
TRAVELED WAY

PROPOSED ROADWAY

existing roadway

(pavement removed outside slope lines)

DRIVEWAYS

(label surface type)

BUILDINGS

(label house or type of building)

FOUNDATION

(label type)

LEACH FIELD

leach field

BRIDGE CROSSINGS

STREAM

OVERPASS

STEPS AND WALK

(label type)

INTERMITTENT WATER COURSE

SHORE LINE

river/stream

pond (label name of water body)

POTENTIAL WET AREA SYMBOL

BRUSH OR WOODS LINE

(deciduous)(coniferous) (stump)

TREES (PLANS)

(show station, circumference in feet & type)

TREE OR STUMP (CROSS-SECTIONS)

HEDGE

(label type)

MONITORING WELL

mon

WELL

W

FLAG POLE

fp

ORIGINAL GROUND (TYPICALS)

ROCK OUTCROP

ROCK LINE (TYPICALS & SECTIONS ONLY)

GUARDRAIL (label type)

JERSEY BARRIER

CURB (LABEL TYPE)

STONE WALL

RETAINING WALL (LABEL TYPE)

FENCE (LABEL TYPE)

SIGNS

(single post)

(double post)

GAS PUMP

FUEL TANK (ABOVE GROUND)

STORAGE TANK FILLER CAP

SEPTIC TANK

GRAVE

MAILBOX

VENT PIPE

SATELLITE DISH ANTENNA

PHONE

GROUND LIGHT/LAMP POST

BORING LOCATION

TEST PIT

INTERSTATE NUMBERED HIGHWAY

UNITED STATES NUMBERED HIGHWAY

STATE NUMBERED HIGHWAY

SHORELAND - WETLAND

WETLAND DESIGNATION AND TYPE

DELINEATED WETLAND

ORDINARY HIGH WATER

TOP OF BANK

TOP OF BANK & ORDINARY HIGH WATER

NORMAL HIGH WATER

WIDTH AT BANK FULL

PRIME WETLAND

PRIME WETLAND 100' BUFFER

NON-JURISDICTIONAL DRAINAGE AREA

COWARDIN DISTINCTION LINE

TIDAL BUFFER ZONE

DEVELOPED TIDAL BUFFER ZONE

HIGHEST OBSERVABLE TIDE LINE

MEAN HIGH WATER

MEAN LOW WATER

VERNAL POOL

SPECIAL AQUATIC SITE

REFERENCE LINE

WATER FRONT BUFFER

NATURAL WOODLAND BUFFER

PROTECTED SHORELAND

INVASIVE SPECIES LABEL

INVASIVE SPECIES

FLOODPLAIN / FLOODWAY

500 YEAR FLOODPLAIN BOUNDARY

100 YEAR FLOODPLAIN BOUNDARY

FLOODWAY

ENGINEERING

CONSTRUCTION BASELINE

PC, PT, POT (ON CONST BASELINE)

PI (IN CONSTRUCTION BASELINES)

INTERSECTION OR EQUATION OF TWO LINES

ORIGINAL GROUND LINE (PROFILES AND CROSS-SECTIONS)

PROFILE GRADE LINE (PROFILES AND CROSS-SECTIONS)

CLEARING LINE

SLOPE LINE

SLOPE LINE (FILL)

SLOPE LINE (CUT)

PROFILES AND CROSS SECTIONS:

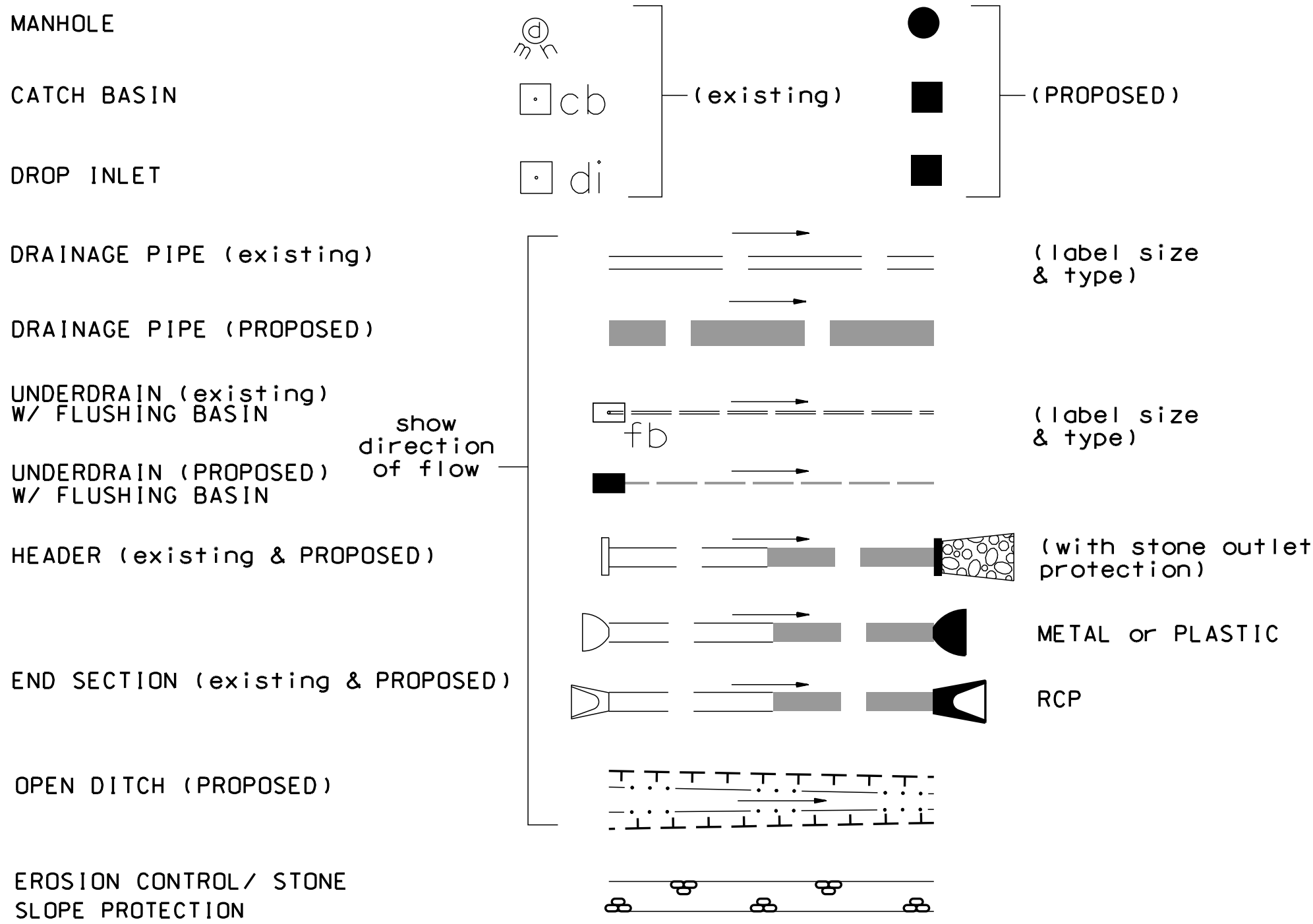
ORIGINAL GROUND ELEVATION (LEFT)

FINISHED GRADE ELEVATION (RIGHT)

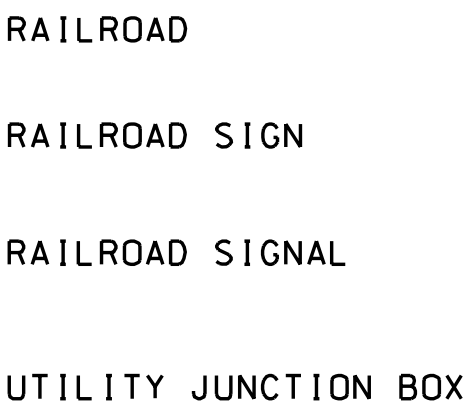
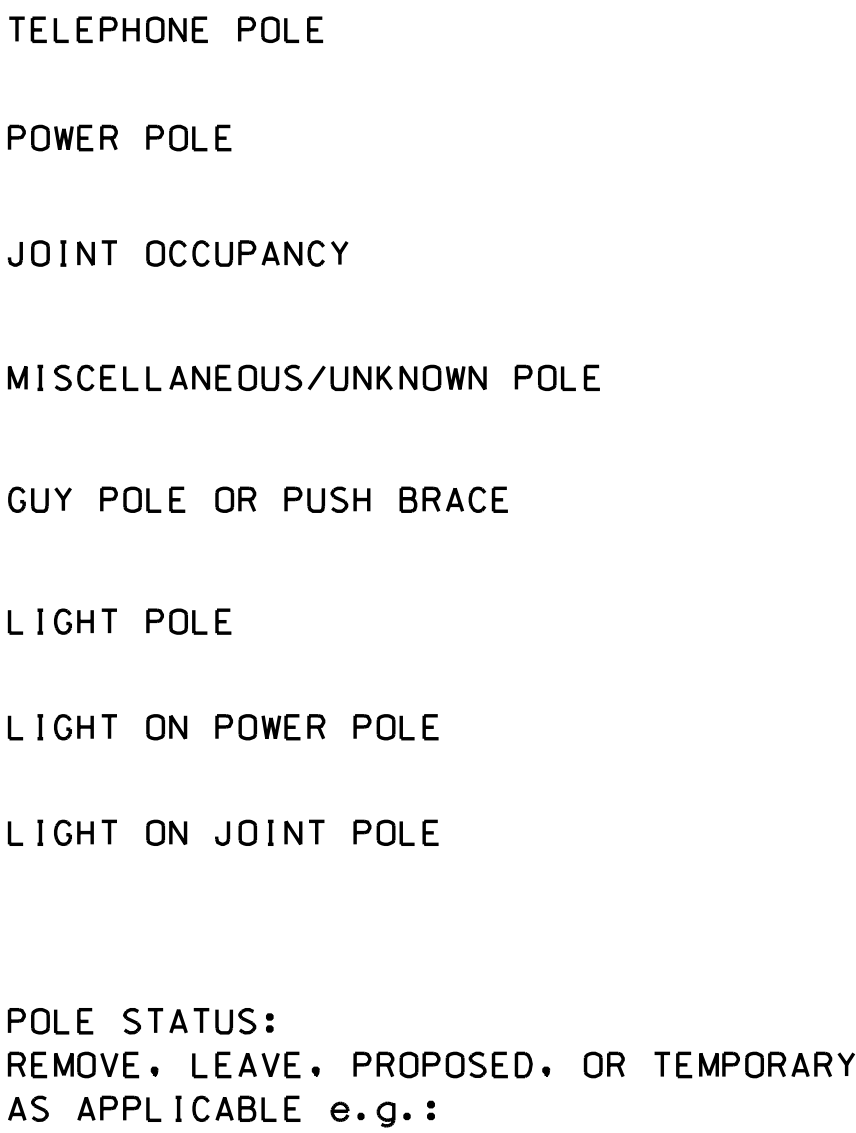
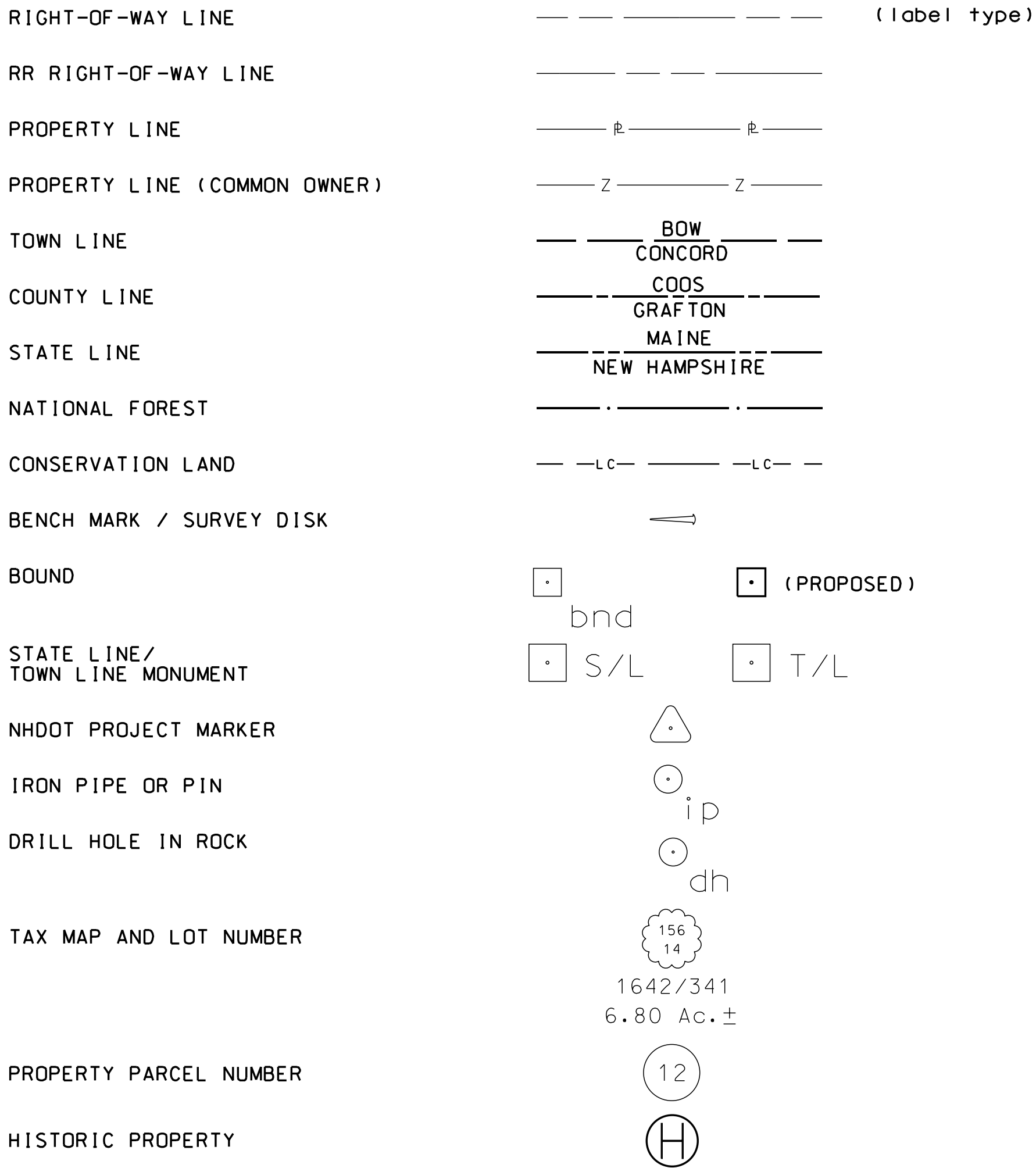
SHEET 1 OF 2

STATE OF NEW HAMPSHIRE CITY OF LEBANON				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
STANDARD SYMBOLS				
REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
11-21-2014	stdsyml1_2	41366	3	27

DRAINAGE



BOUNDARIES / RIGHT-OF-WAY



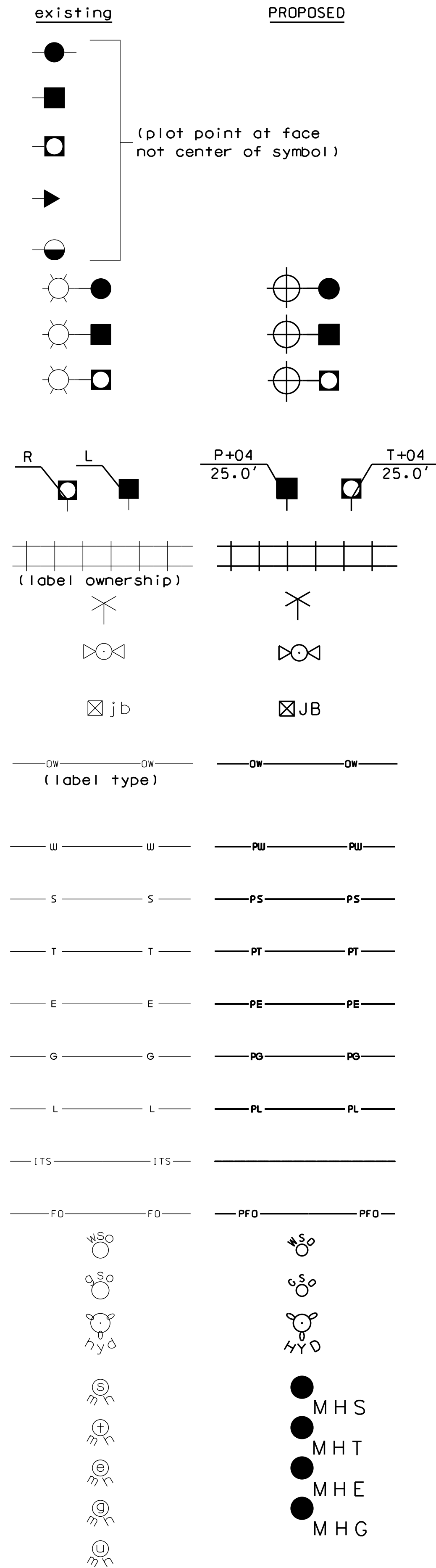
UNDERGROUND UTILITIES



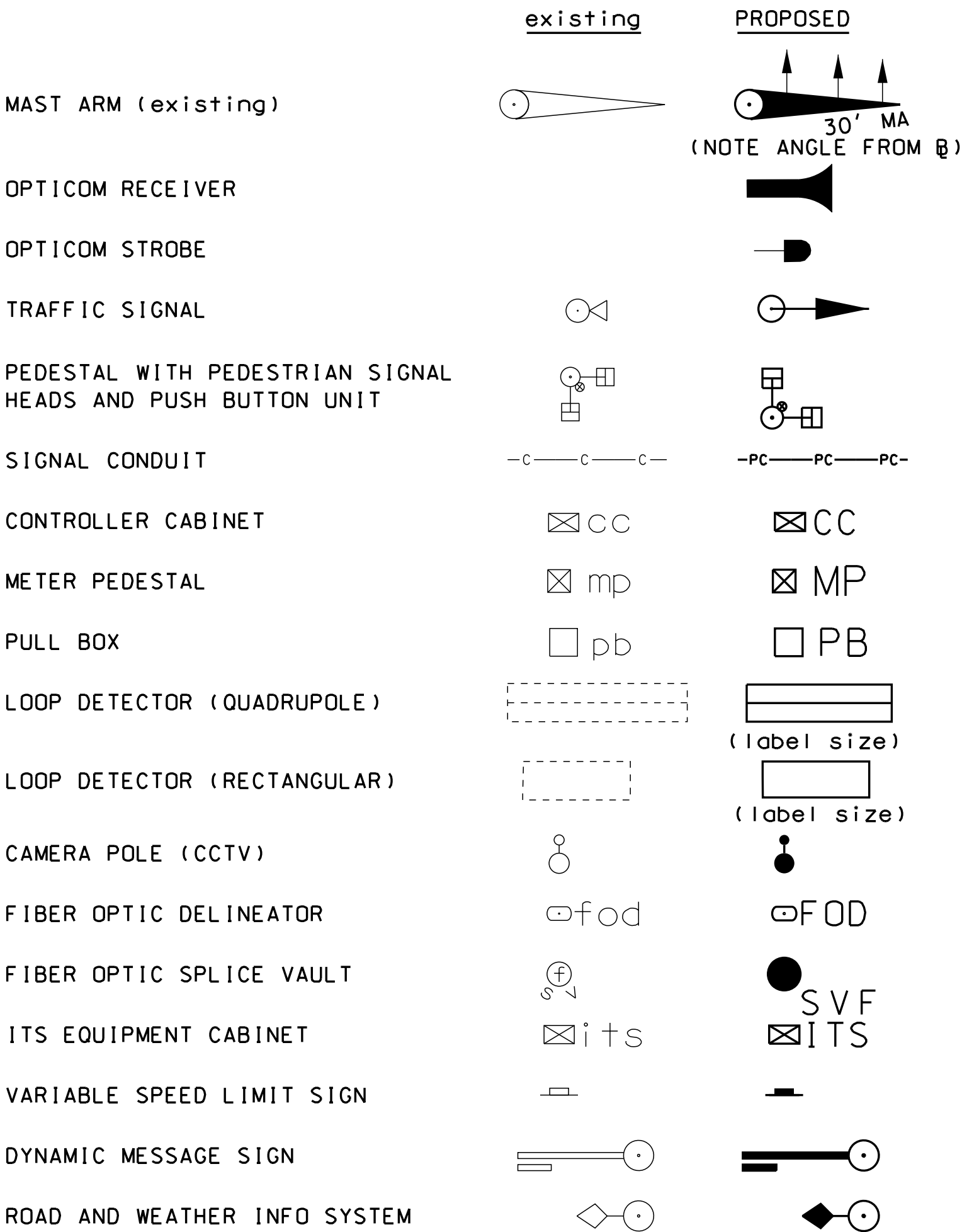
MANHOLES



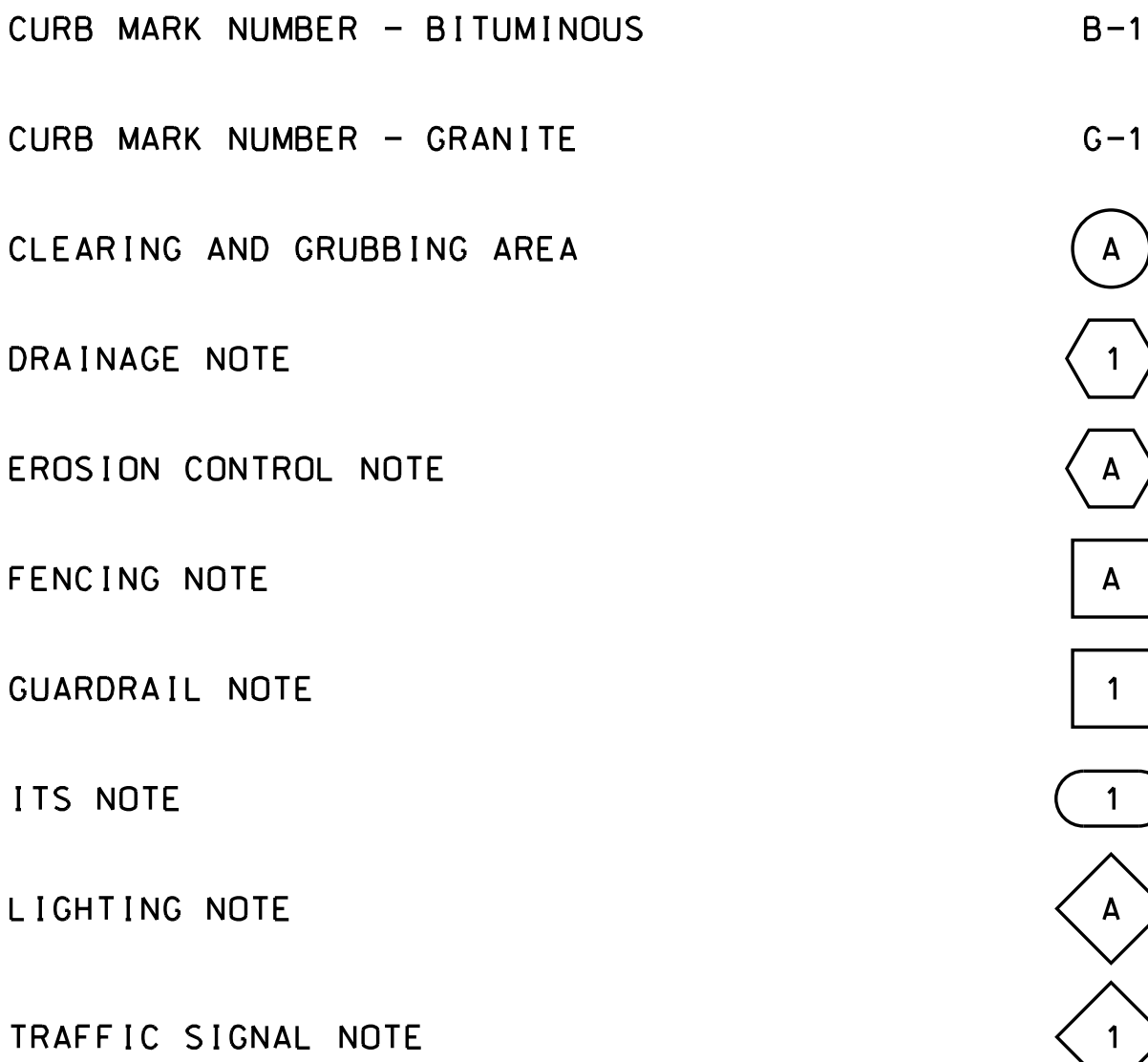
UTILITIES



TRAFFIC SIGNALS / ITS



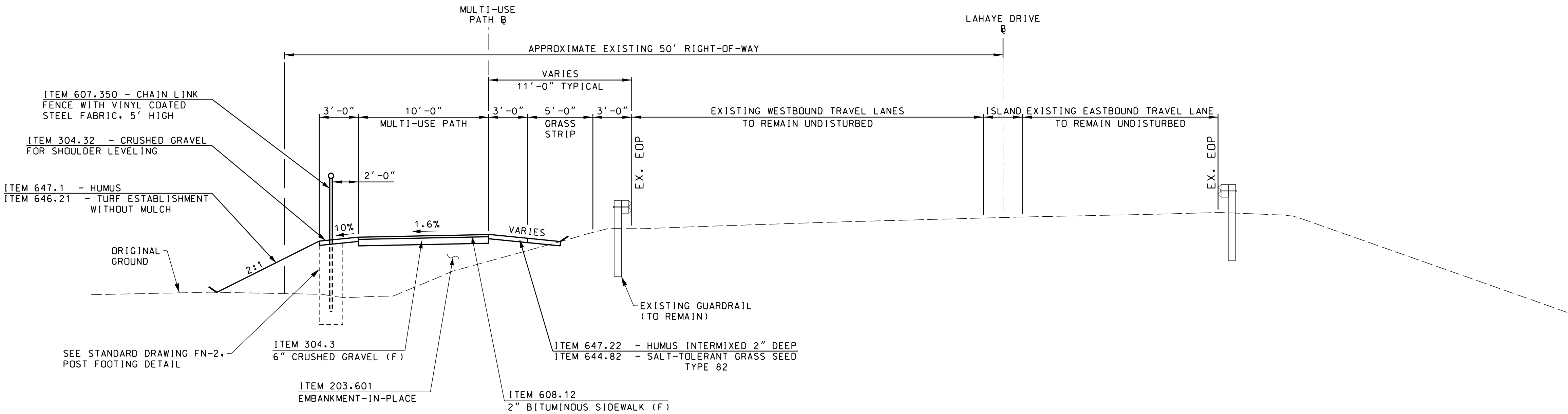
CONSTRUCTION NOTES



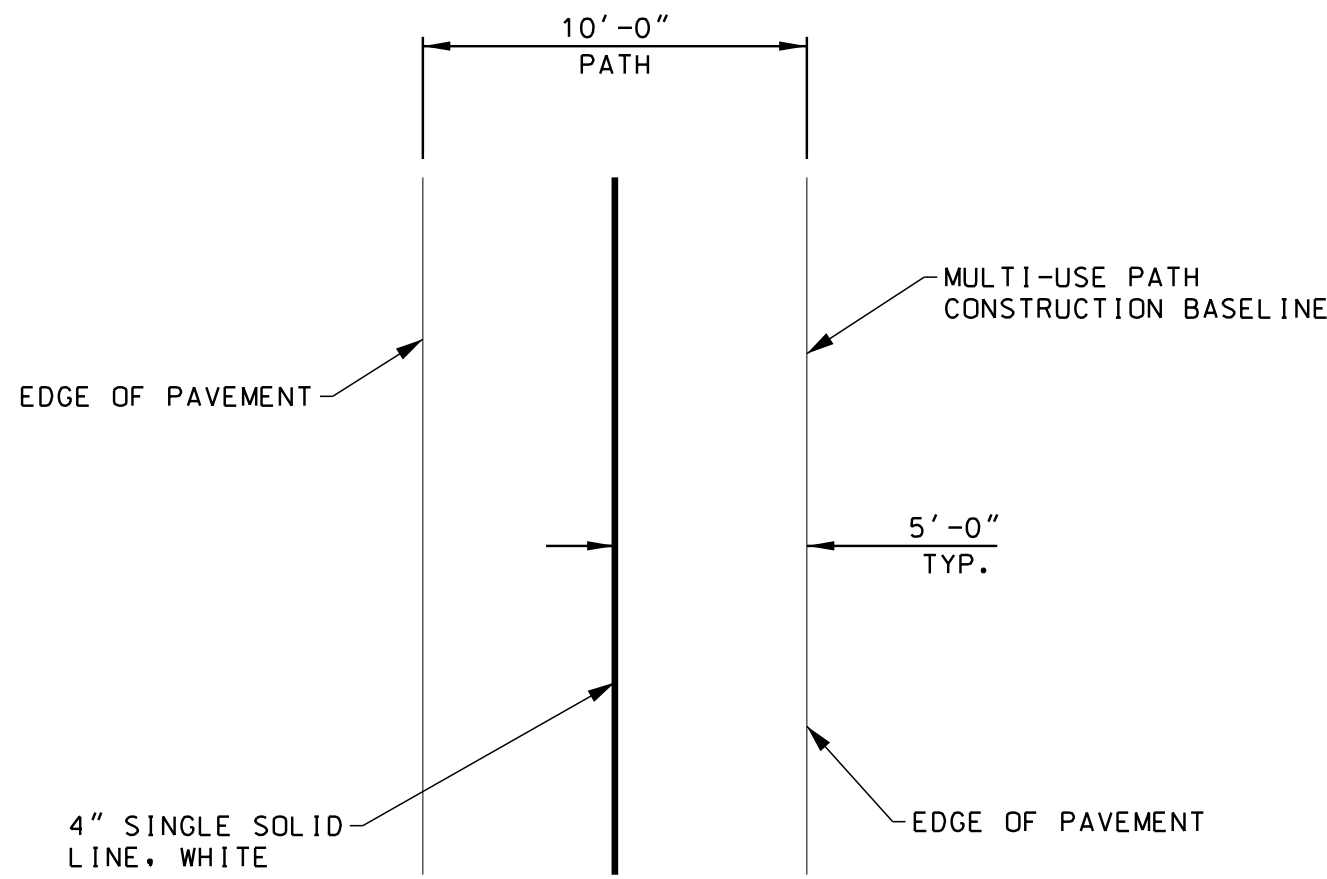
SHEET 2 OF 2

STATE OF NEW HAMPSHIRE CITY OF LEBANON				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
STANDARD SYMBOLS				
REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
9-1-2016	stdsyml_2	41366	4	27

REVISIONS AFTER PROPOSAL				DESCRIPTION			
STATION		STATION		STATION		STATION	
NUMBER		DATE		NUMBER		DATE	
SDR PROCESSED		DATE		DATE		DATE	
NEW DESIGN		DATE		DATE		DATE	
SHEET CHECKED		DATE		DATE		DATE	
AS BUILT DETAILS		DATE		DATE		DATE	



LAHAYE DRIVE
10' MULTI-USE PATH
STA 20+10.00 TO STA 29+45.00
1" = 5'-0"



PAVEMENT MARKING DETAIL
NOT TO SCALE

NOTES:
1. SEE GENERAL PLANS FOR PAVEMENT STRIPE LOCATION.

NOT FOR CONSTRUCTION

CITY OF LEBANON, NEW HAMPSHIRE

TYPICAL SECTION

DuBois
& King
INC.

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
41366+yp	41366	5	27

SDR PROCESSED	OMC	DATE	1/7/2021
NEW DESIGN	JCH	DATE	1/7/2021
SHEET CHECKED		DATE	
AS BUILT DETAILS		DATE	

NUMBER	DATE	STATION	STATION	REVISIONS AFTER PROPOSAL	DESCRIPTION

SURFACING MATERIALS							
ITEM NO.	304.3	304.32	403.12	608.12	608.24	608.26	608.54
ITEM DESCRIPTION	CRUSHED GRAVEL (F)	CRUSHED GRAVEL FOR SHOULDER LEVELING	HOT BITUMINOUS PAVEMENT, HAND METHOD	2" BITUMINOUS SIDEWALK (F)	4" CONCRETE SIDEWALK	6" CONCRETE SIDEWALK	DETECTABLE WARNING DEVICES, COMPOSITE
UNIT	CY	CY	TON	SY	SY	SY	SY
LOCATION							
LAHAYE DRIVE	196	26		1072	56	34	9
NH ROUTE 120 / CENTERRA PARK			4		48		7
SUBTOTAL	196	26	3.5	1072	104	34	16
ROUNDING	4	4	0.5	8	6	1	4
TOTAL	200	30	4	1080	110	35	20

TRAFFIC SIGNALS AND CONDUIT						
ITEM NO.	614.511	614.73114	616.101		616.191	
ITEM DESCRIPTION	CONCRETE PULL BOX 14"	3" PVC CONDUIT, SCHEDULE 40	INSTALL TYPE 2 FOUNDATION	INSTALL LOOP DETECTOR	ALTERATIONS TO TRAFFIC SIGNALS	REMARKS
UNIT	EA	LF	U		U	
LOCATION						
NH ROUTE 120 / CENTERRA PKWY	1	36	1	1	1	
SUBTOTAL	1	36	1	1	1	
ROUNDING		14				
TOTAL	1	50	1	1	1	

ENVIRONMENTAL PROTECTION AND EROSION CONTROL								
ITEM NO.	644.82	645.512	645.531	645.7	645.71	646.21	647.1	647.22
ITEM DESCRIPTION	SALT TOLERANT GRASS SEED TYPE 82	COMPOST SOCK FOR PERIMETER BERM	SILT FENCE	STORM WATER POLLUTION PREVENTION PLAN	MONITORING SWPPP AND EROSION AND SEDIMENT CONTROLS	TURF ESTABLISHMENT WITHOUT MULCH	HUMUS	HUMUS INTERMIXED, 2" DEEP
UNIT	LB	LF	LF	U	HR	AC	CY	CY
LOCATION								
LAHAYE DRIVE	11.7	1900	950	1	70	0.20	108	33
SUBTOTAL	11.7	1900	950	1	70	0.20	108	33
ROUNDING	0.3	100	50			0.05	2	2
TOTAL	12	2000	1000	1	70	0.25	110	35

DRAINAGE SUMMARY			
ITEM NO.	DESCRIPTION	UNIT	TOTAL
570.4	Mortar Rubble Masonry	CY	10
585.2	Stone Fill, Class B	CY	15
593.411	Geotextile; Permanent Erosion Control CL.1, Non-Woven	SY	40
603.0023	30" R.C. Pipe, 2000D	LF	30
603.11236	36" Corr. Steel Pipe, .079"	LF	20
603.33215	15" Corr. Poly. Pipe End Section	EA	2
603.88215	15" PE Pipe (Type S)	LF	50
604.124	Catch Basins Type B, 4FT. Diameter	EA	1
604.19	Special Catch Basins, Double Grate	EA	1

SIGNING			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
615.034	RELOCATING TRAFFIC SIGN TYPE C	U	8

CURBING			
ITEM NO.			609.5
ITEM DESCRIPTION	MARK NUMBER	RADIUS	RESET GRANITE CURB
UNIT			LF
LOCATION			
NH ROUTE 120			
	G-1		17
	G-2		17
	G-3		17
	G-4		17
CENTERRA PARKWAY			
	G-5		24
	G-6		9
	G-7		22
	G-8		29
	G-9		26
SUBTOTAL			178
ROUNDING			22
TOTAL			200

INCIDENTAL ITEMS			
ITEM NO.	DESCRIPTION	UNIT	TOTAL
214.	Fine Grading	U	2
619.1	Maintenance of Traffic	U	2
692	Mobilization	U	1
699	Miscellaneous Temporary Erosion Control	\$	5000

FENCING				
	ITEM NO.	607.350	607.4250	607.73510
REF. NO.	ITEM DESCRIPTION	CHAIN LINK FENCE WITH VINYL COATED STEEL FABRIC, 5' HIGH	POST ASSEMBLIES FOR CHAIN LINK FENCE, 5' HIGH	10' OPENING DOUBLE GATE, 5' HIGH
	UNIT	LF	EA	U
	LOCATION			
A	STA 20+00.00 TO STA 28+85.00 LT	865	6	2
	SUBTOTAL	865	6	2
	ROUNDING	5	-	-
	TOTAL	870	6	2

CLEARING AND GRUBBING				
ITEM NO.			201.1	
ITEM DESCRIPTION			CLEARING AND GRUBBING (F)	
UNIT				
LOCATION		DESIGNATED AREA	AC	
LAHAYE DRIVE				
STA. 20+08.0	TO 24+92.0	LT	A	0.14
STA. 26+10.0	TO 28+66.0	LT	B	0.11
SUBTOTAL			0.24	
TOTAL			0.30	

MATERIALS SALVAGED TO CITY OF LEBANON, NH
EXISTING GRANITE CURB
EXISTING TRAFFIC SIGNAL EQUIPMENT

THIS INFORMATION IS FOR BIDDING PURPOSES ONLY

**DuBois
& King inc.**

EARTHWORK SUMMARY			
DESCRIPTION		QUANTITY	UNITS
		Preliminary	
1	Common Excavation in Sections, Including Pavement	78.6	CY
2	Common Excavation NOT in Sections	0.0	CY
3	Common Excavation for Riprap Aprons	10.0	CY
4	Drive and Approach Excavation	0.0	CY
5	Topsoil Removed Beneath Fill Sections	161.1	CY
6	Unsuitable Material Removed Beneath Fill Sections	0.0	CY
7	Total Common Excavation	249.7	CY
		ROUNDING	0.3
	COMMON EXCAVATION FOR ESTIMATE	ITEM 203.1	250

8	Muck Excavation (See Item 203.4)	163.6	CY
		ROUNDING	6.4
	MUCK EXCAVATION FOR ESTIMATE	ITEM 203.4	170

9	Rock Excavation in Sections (Solid)	0.0	CY
10	Rock Excavation for Wetland Creation (Solid)	0.0	CY
11	Boulders in Sections (1 x ____%)	2.5	CY
12	Boulders in Common Excavation for Wetland Creation (3 X ____%)	0.0	CY
13	Drive and Approach Excavation (Solid Rock)	0.0	CY
14	Drive and Approach Excavation (Boulders) (4 X ____%)	0.0	CY
15	Rock Overbreakage	0.0	CY
16	Rock Not Covered by Sections (Surface Bldrs., Headers, Foundations, etc.)	0.0	CY
		ROUNDING	1.5
	TOTAL ROCK EXCAVATION FOR ESTIMATE	ITEM 203.2	4.0

17	Sections Fill	2518.0	CY
18	Topsoil Replacement	0.0	CY
19	Unsuitable Material Replacement	0.0	CY
20	Muck Replacement	0.0	CY
21	Drive and Approach Fill	0.0	CY
22	Embankment-In-Place Item 203.6	0.0	CY
		ROUNDING	82
	EMBANKMENT-IN-PLACE (F) FOR ESTIMATE	ITEM 203.6	2600

PAVEMENT MARKINGS					
ITEM NO.	632.0104	632.3106	632.3118	632.911	632.912
ITEM DESCRIPTION	RETRO-REFLECTIVE PAINT PAVEMENT MARKING, 4" LINE	RETRO-REFLECTIVE THERMO. PAVE. MARKING, 6" LINE	RETRO-REFLECTIVE THERMO PLASTIC PAVEMENT MARKING, 18" LINE	OBLITERATE PAVEMENT MARKING LINE, 12" WIDE & UNDER	OBLITERATE PAVEMENT MARKING LINE, OVER 12" WIDE
UNIT	LF	LF	LF	LF	LF
LOCATION					
LAHAYE DRIVE	915	489	83	523	76
SUBTOTAL	915	489	83	523	76
ROUNDING	5	1	7	7	4
TOTAL	920	490	90	530	80

SUBSIDIARY ITEMS	
DESCRIPTION	QUANTITY
REMOVAL OF EXISTING DRAINAGE STRUCTURES (WHERE INDICATED ON THE PLANS)	
REMOVAL OF EROSION STONE	
SALVAGE OF MATERIALS	
ALL SAW CUTS OF BITUMINOUS PAVEMENT	
NOTE: THIS LIST OF SUBSIDIARY ITEMS SHOULD NOT BE CONSIDERED AS A COMPLETE LISTING OF SUBSIDIARY WORK PRESENT IN THE PROJECT. REFER TO PLANS, PROPOSAL, SPECIAL PROVISIONS, AND STANDARD SPECIFICATIONS.	

NOT FOR CONSTRUCTION

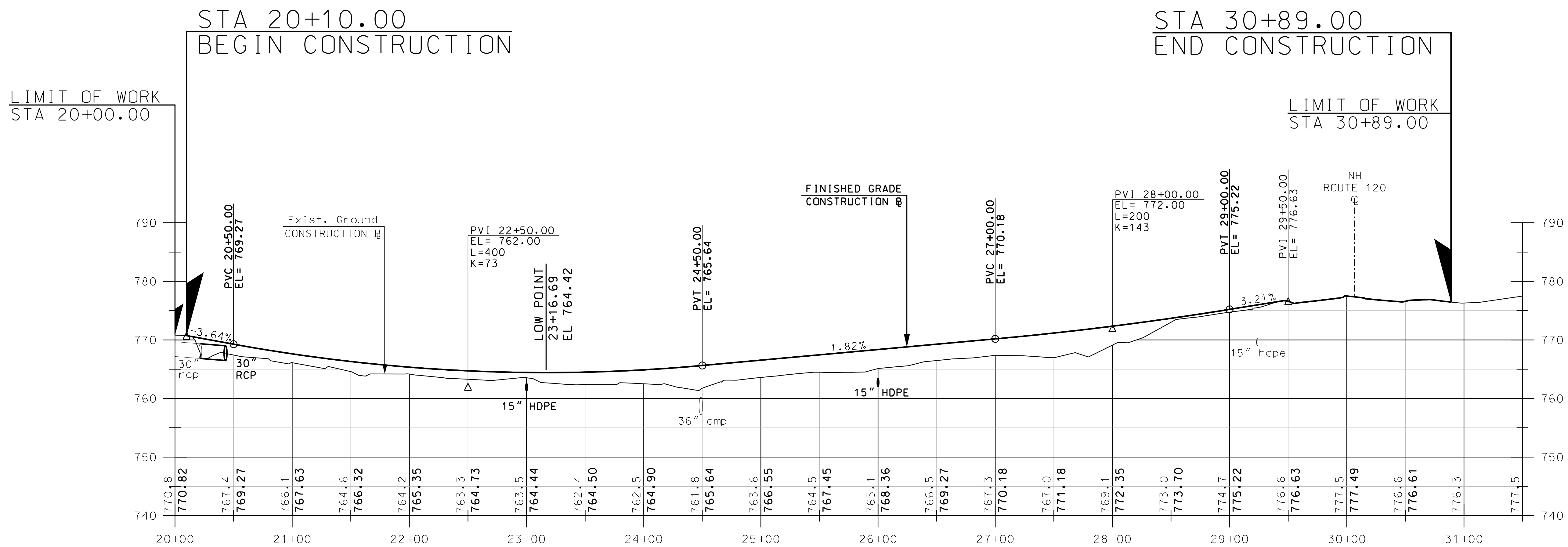
CITY OF LEBANON, NEW HAMPSHIRE			
SUMMARY OF QUANTITIES			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
41366sum	41366	6	27

SDR PROCESSED				DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE		DATE	
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SDR PROCESSED		DATE		REVISIONS AFTER PROPOSAL			
NEW DESIGN		DATE		STATION		STATION	
SHEET CHECKED		DATE		STATION		STATION	
AS BUILT DETAILS		DATE					
						</	

SDR PROCESSED	QMC	DATE	1/7/2021
NEW DESIGN	JCH	DATE	1/7/2021
SHEET CHECKED		DATE	
AS BUILT DETAILS			

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION



LAHAYE DRIVE
MULTI-USE PATH

SCALE:
1" = 50' HORIZ.
1" = 10' VERT.

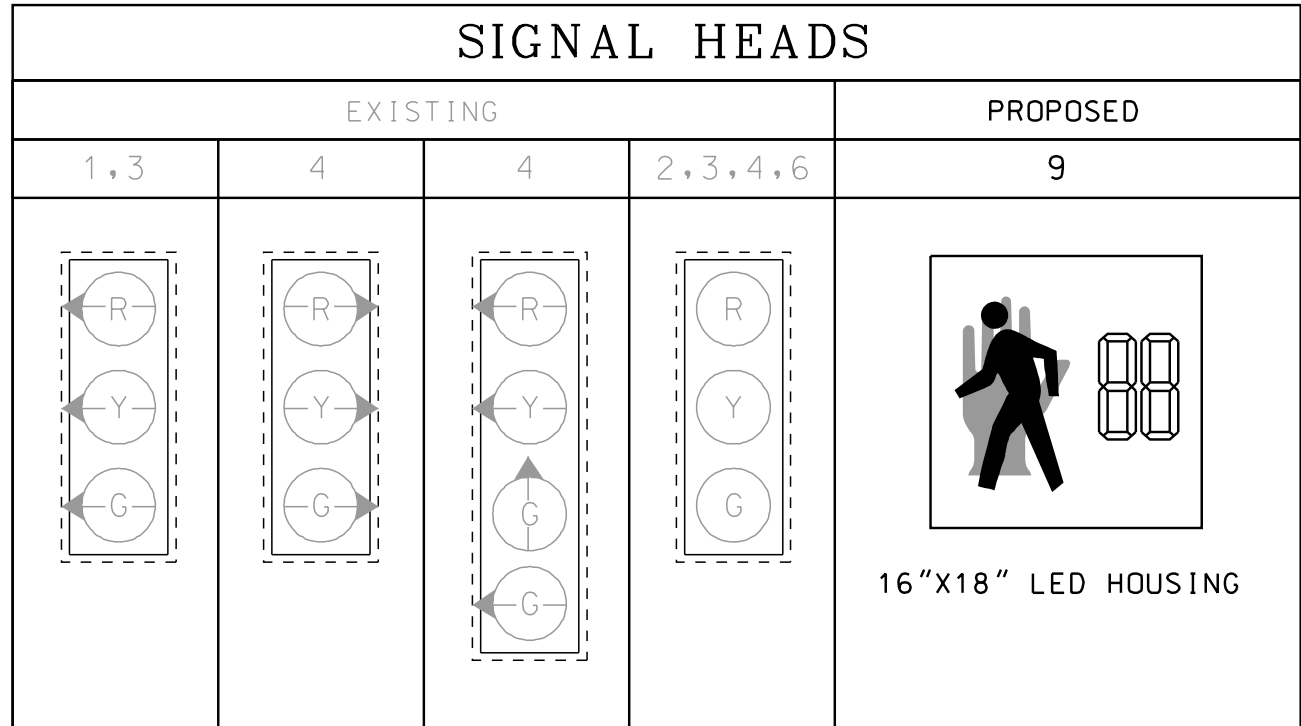
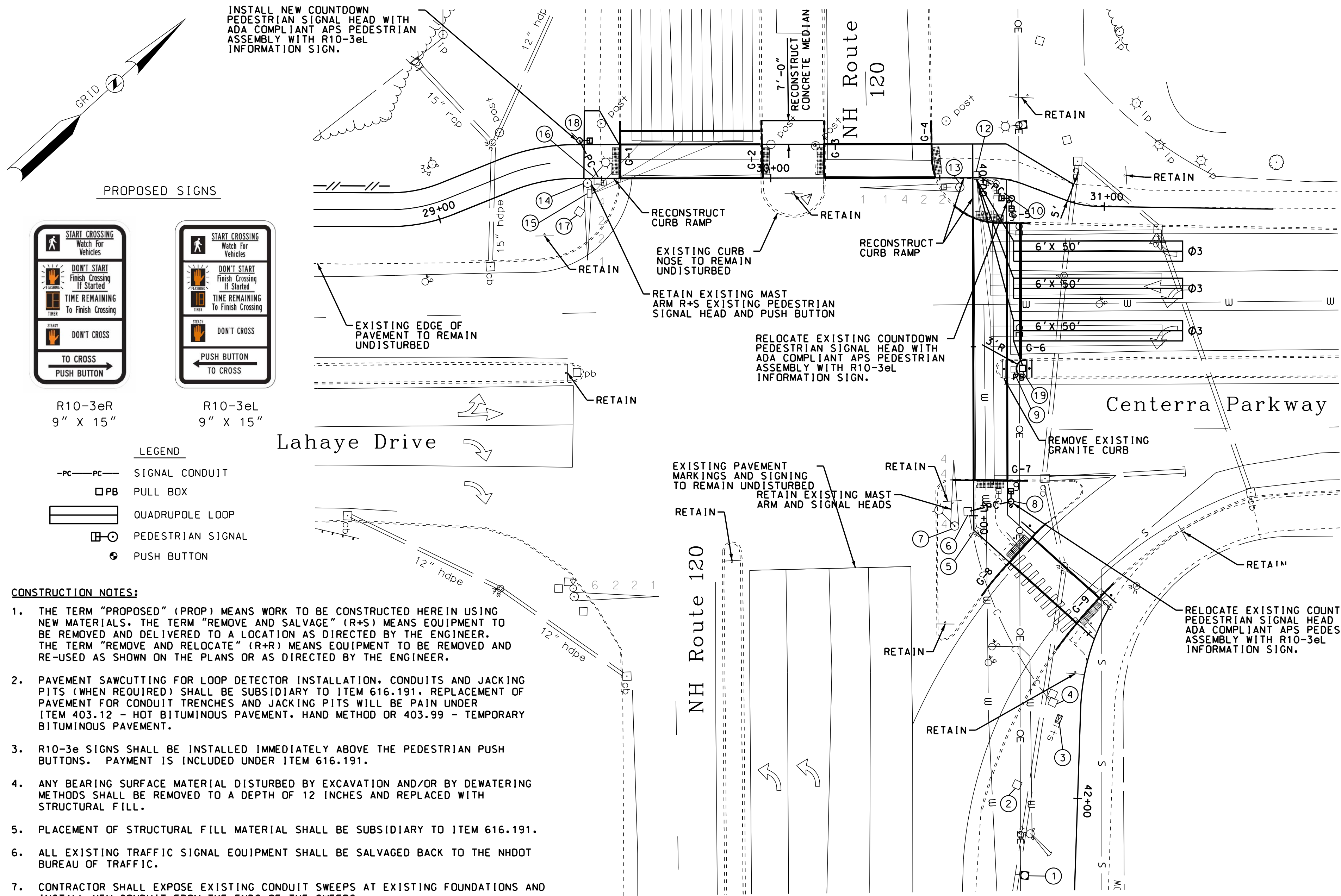
NOT FOR CONSTRUCTION

CITY OF LEBANON, NEW HAMPSHIRE

PROFILE

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
Profile	41366	10	27

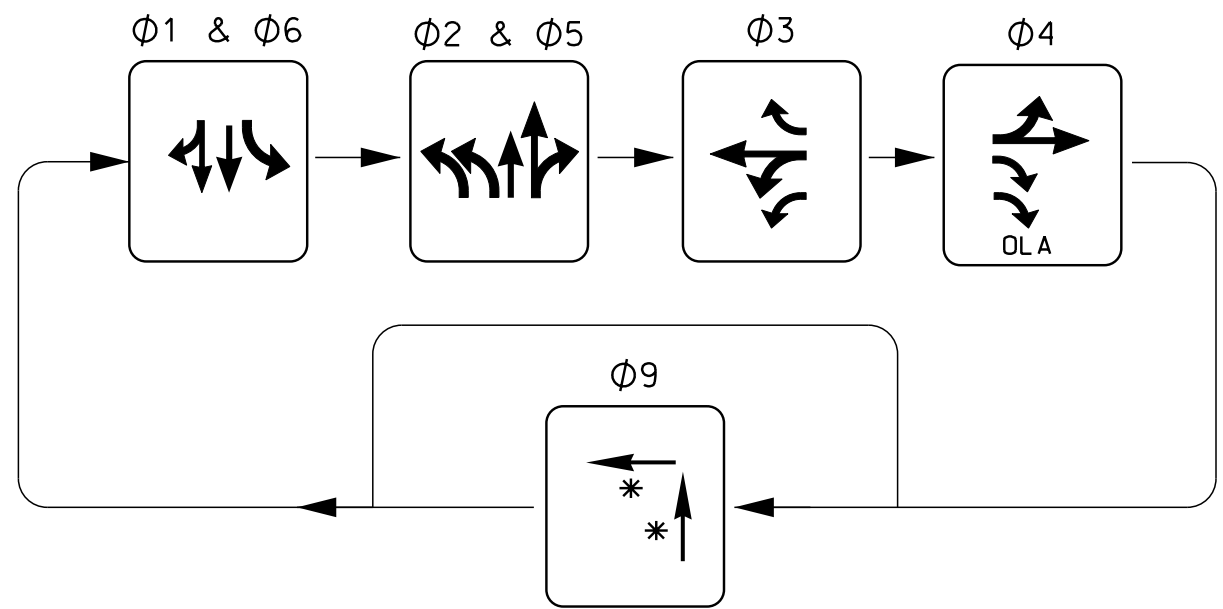
DuBois & King



DETECTOR SCHEDULE									
DETECTOR			AMPLIFIER			INDUCT. U H	RESIST. OF LOOP	RESIST. LOOP TO GROUND (MEG OHMS)	RESIST. SHIELD TO GROUND (MEG OHMS)
STREET	DIRECTION	LANE	Φ	NO.	CHANNEL				
NH ROUTE 120	SOUTHBOUND	LEFT	1	1	1				
NH ROUTE 120	SOUTHBOUND	THRU	6	2	1				
NH ROUTE 120	SOUTHBOUND	THRU-RIGHT	6	2	2				
NH ROUTE 120	NORTHBOUND	LEFT	5	3	1				
NH ROUTE 120	NORTHBOUND	LEFT	5	3	2				
NH ROUTE 120	NORTHBOUND	THRU	2	4	1				
NH ROUTE 120	NORTHBOUND	THRU	2	4	2				
CENTERRA PKWY	WESTBOUND	LEFT	3	5	1				
CENTERRA PKWY	WESTBOUND	THRU-LEFT	3	5	1				
CENTERRA PKWY	WESTBOUND	RIGHT	3	5	2				
LAHAYE DRIVE	EASTBOUND	THRU-LEFT	4	6	1				
LAHAYE DRIVE	EASTBOUND	RIGHT	4	6	1				
LAHAYE DRIVE	EASTBOUND	RIGHT	4	6	2				

RECORD FIELD MEASUREMENTS ABOVE

EXISTING N.E.M.A. PHASE SEQUENCE



2022 ROADWAY DESIGN VOLUMES AM (PM)

50 (45) ↓ 415 (770) ↓ 170 (165)	65 (190) ↑ 60 (70) ↑ 115 (560)
(80) 45 (150) 50 (775) 310	1135 (235) ↑ 125 (460) ↑ 480 (260)

2032 ROADWAY DESIGN VOLUMES AM (PM)

55 (50) ↓ 440 (845) ↓ 190 (180)	75 (210) ↑ 70 (80) ↑ 125 (620)
(90) 50 (165) 60 (850) 330	1245 (250) ↑ 795 (485) ↑ 530 (290)

SIGNAL FOUNDATION SCHEDULE

FOUNDATION LOC. TYPE	STATION	NOTES
①	-	42+23 LT 16' existing power source
②	-	41+97 LT 18' existing pull box
③	-	41+77 LT 6' existing meter pedestal
④	-	41+72 LT 8' existing controller cabinet
⑤	-	41+06 RT 1' existing pull box
⑥	-	40+99 LT 2' existing pull box
⑦	-	41+03 LT 6' existing mast arm pole
⑧	TSFND	40+96 RT 11' RELOCATE EXISTING PEDESTRIAN PEDESTAL
⑨	-	40+57 RT 12' existing pull box
⑩	TSFND	40+06 RT 11' RELOCATE EXISTING PEDESTRIAN PEDESTAL
⑪	-	NOT USED
⑫	-	40+00 RT 1' existing pull box
⑬	-	40+03 LT 4' existing mast arm pole
⑭	-	29+46 RT 1' existing mast arm pole
⑮	-	29+47 RT 6' existing pull box
⑯	-	29+49 RT 1' existing pull box
⑰	-	29+43 RT 10' existing pull box
⑱	TSFND	29+43 LT 11' PROPOSED PEDESTRIAN PEDESTAL
⑲	PB	40+56 RT 15' PROPOSED PULL BOX

PB = 14" CONCRETE PULL BOX CONSTRUCTED IN ACCORDANCE WITH NHDOT SIGNAL AND LIGHTING STANDARD SL-1

TSFND = CONCRETE FOUNDATION FOR PEDESTALS (SIGNAL AND METER) CONSTRUCTED IN ACCORDANCE WITH NHDOT SIGNAL AND LIGHTING STANDARDS SL-2

SIGNAL PHASING

	Φ1	Φ2	Φ3	Φ4	Φ5	Φ6	Φ7	Φ8	Φ9
TIMING IN SECONDS	↶	↑↑	↶↷	↷↶	↷↷	↓↓	NOT USED	NOT USED	↶ EXCL PED
INITIAL INTERVAL	5	5	5	5	5	5	-	-	1
VEHICLE EXTENSION	4	4	3	3	4	4	-	-	
MAXIMUM I	21	41	8	8	44	18	-	-	29
MAXIMUM II	17	26	27	17	10	33	-	-	29
YELLOW	4	4	4	4	4	4	-	-	3
ALL RED	2	2	2	2	2	2	-	-	0
PEDESTRIAN WALK	-	-	-	-	-	-	-	-	4
PEDESTRIAN CLEAR	-	-	-	-	-	-	-	-	22
FLASH							-	-	DARK
RECALL	NL	SOFT	NL	NL	NL	SOFT	-	-	
DETECTOR							-	-	
PRE-EMPT PRIORITY							-	-	

Φ9 ACTIVATED BY PEDESTRIAN PUSH BUTTON

CITY OF LEBANON, NEW HAMPSHIRE

SIGNALIZATION PLAN

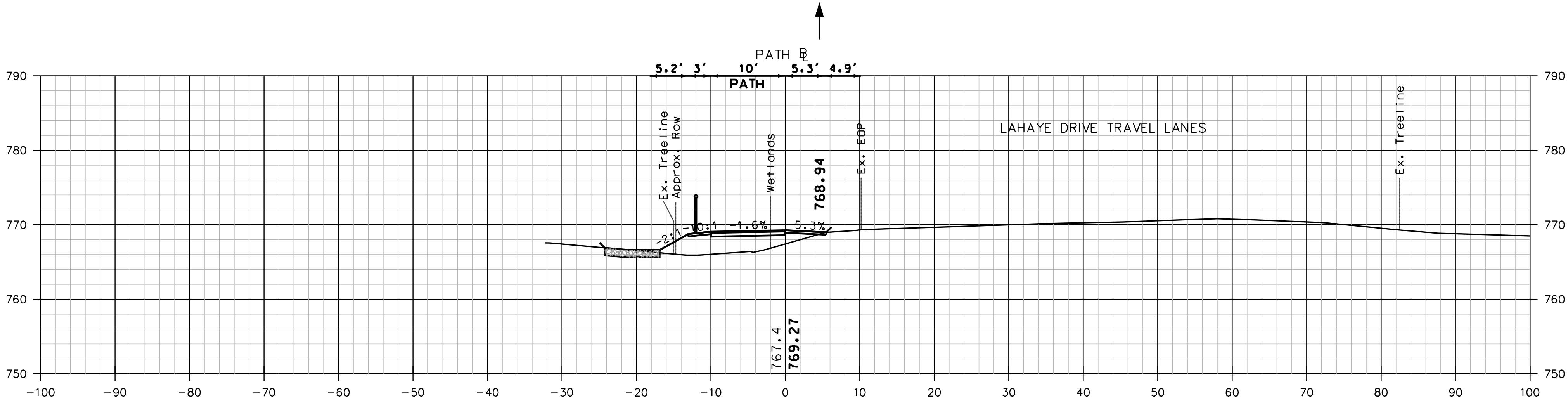
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
sigplans	41366	11	27

DuBois & King INC.

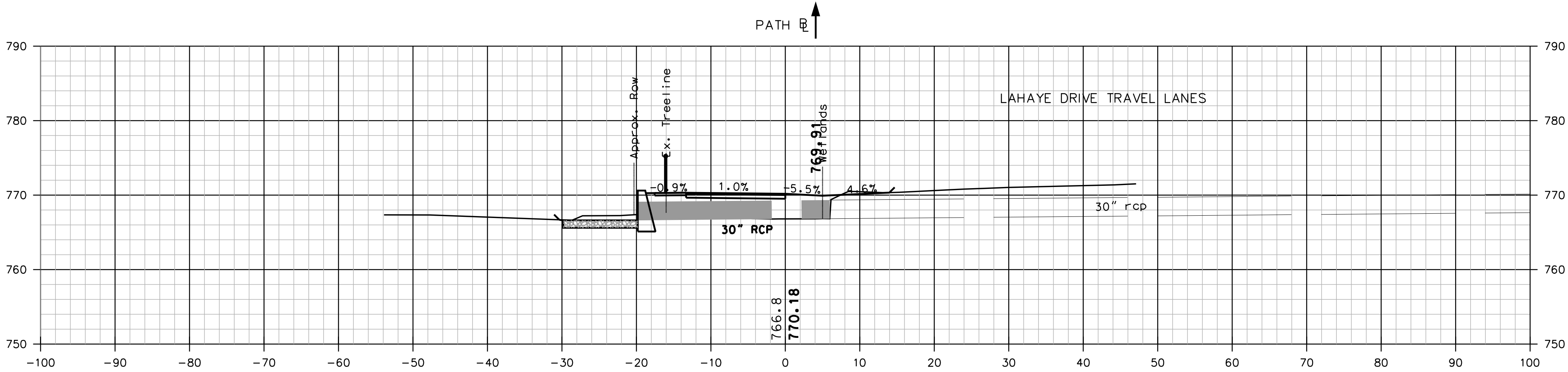
REVISIONS AFTER PROPOSAL				
NUMBER	DATE	STATION	STATION	DESCRIPTION

SDR PROCESSED	DATE	DATE	DATE
NEW DESIGN	GMC	1/7/2021	1/7/2021
SHEET CHECKED	JCH		
AS BUILT DETAILS	DATE		

SCALE:
1"= 10' HORIZ.
1"= 10' VERT.

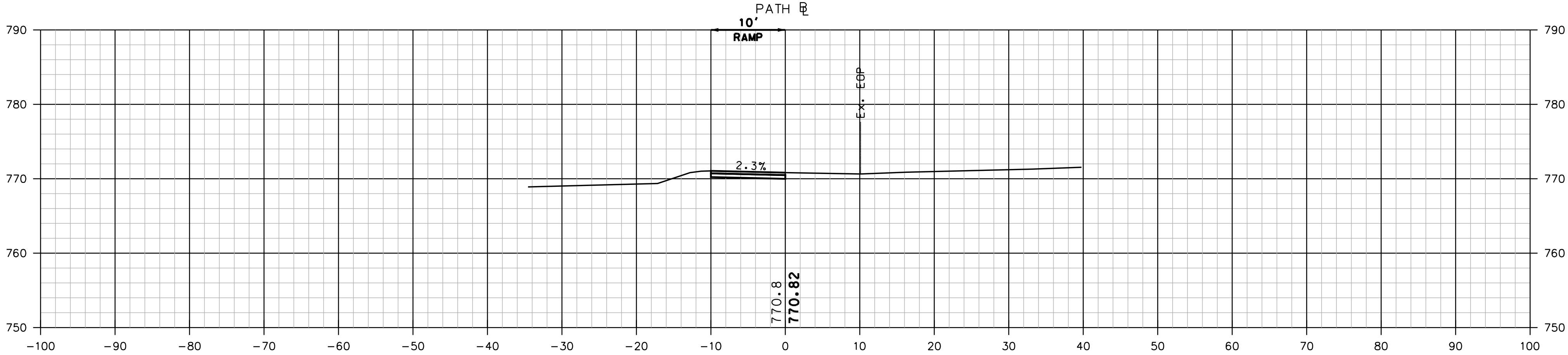


20+50



20+25

SKEW ANGLE 39° 06' 27"



20+00

STA 20+10.00 – BEGIN CONSTRUCTION
STA 20+00.00 – LIMIT OF WORK

NOT FOR CONSTRUCTION

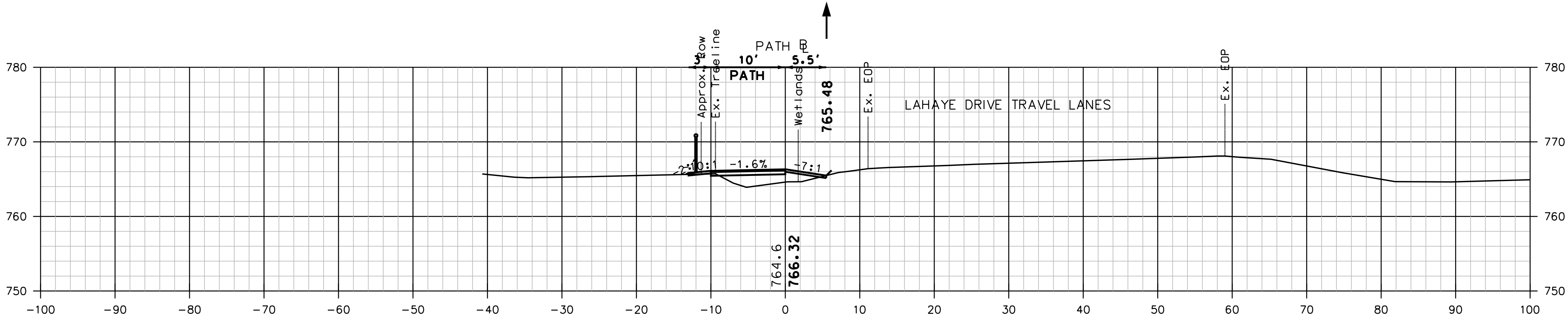
LAHAYE DRIVE

SHEET TOTALS			
COMMON EXCAV.	— C.Y.	ROCK EXCAV.	— C.Y.
FILL	— C.Y.	MUCK EXCAV.	— C.Y.
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
41366XS	41366	12	27

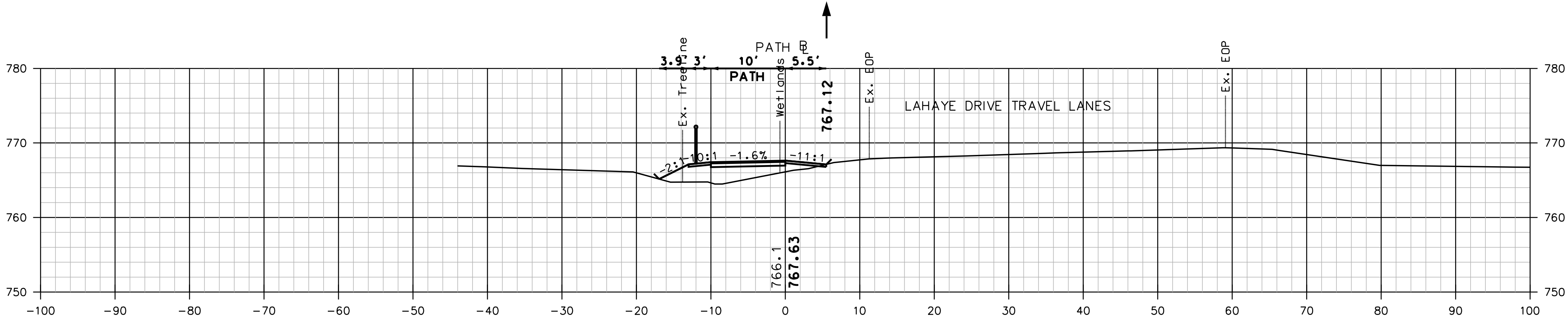
REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED	DATE	DATE	DATE
NEW DESIGN	GMC	1/7/2021	1/7/2021
SHEET CHECKED	JCH		
AS BUILT DETAILS	DATE		

SCALE:
1"= 10' HORIZ.
1"= 10' VERT.



21+50



21+00

NOT FOR CONSTRUCTION

LAHAYE DRIVE

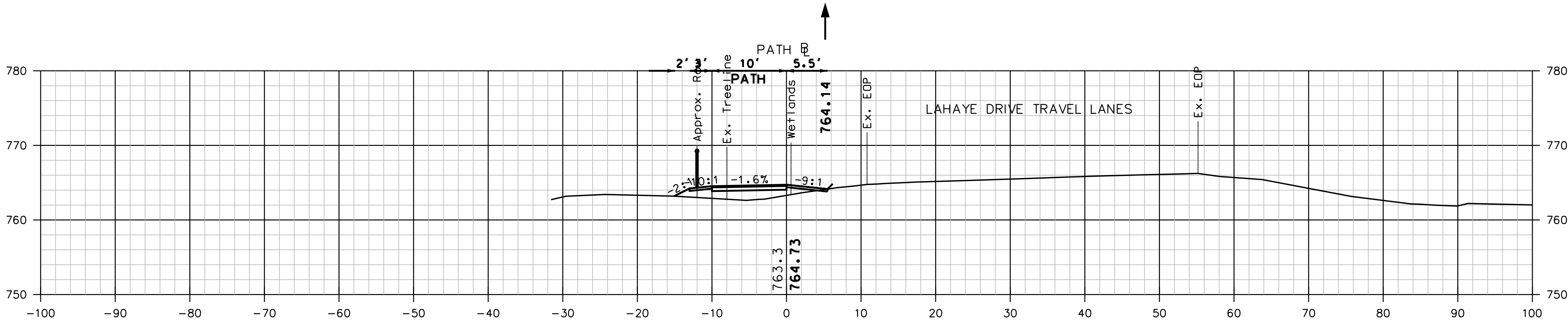
SHEET TOTALS			
COMMON EXCAV.	— C.Y.	ROCK EXCAV.	— C.Y.
FILL	— C.Y.	MUCK EXCAV.	— C.Y.
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
41366XS	41366	13	27



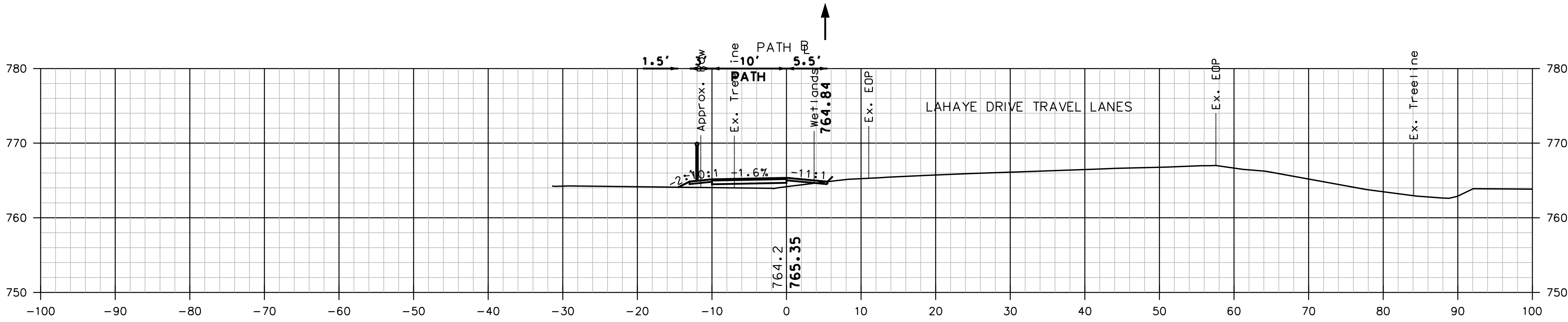
REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED	DATE
NEW DESIGN	DATE 1/7/2021
SHEET CHECKED JCH	DATE 1/7/2021
AS BUILT DETAILS	DATE

SCALE:
1"= 10' HORIZ.
1"= 10' VERT.



22+50



22+00

NOT FOR CONSTRUCTION

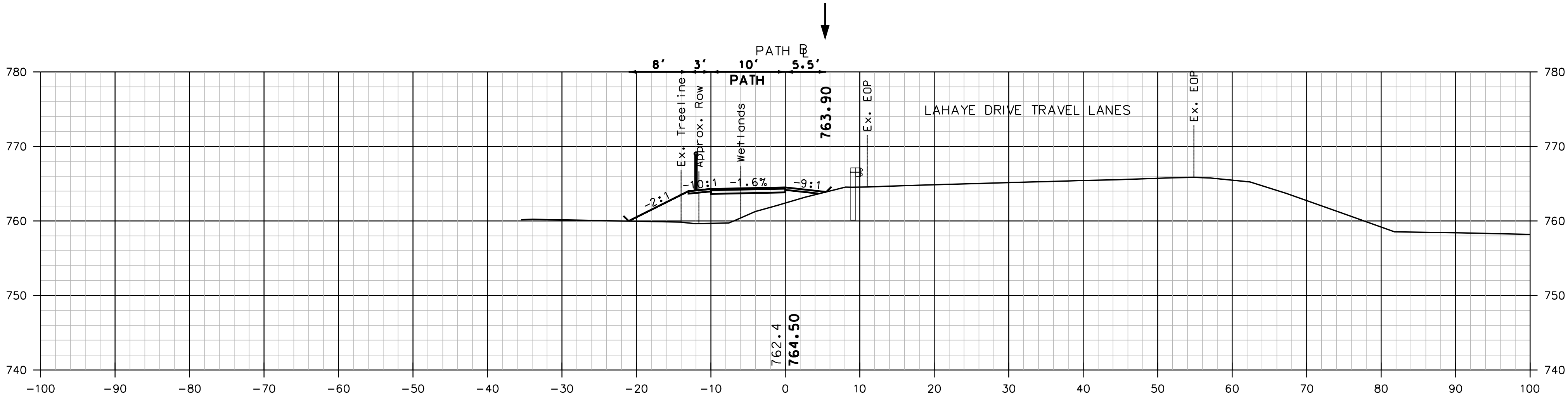
LAHAYE DRIVE

	SHEET TOTALS			
	COMMON EXCAV. _____	— C.Y.	ROCK EXCAV. _____	— C.Y.
	FILL _____	— C.Y.	MUCK EXCAV. _____	— C.Y.
	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
	41366XS	41366	14	27

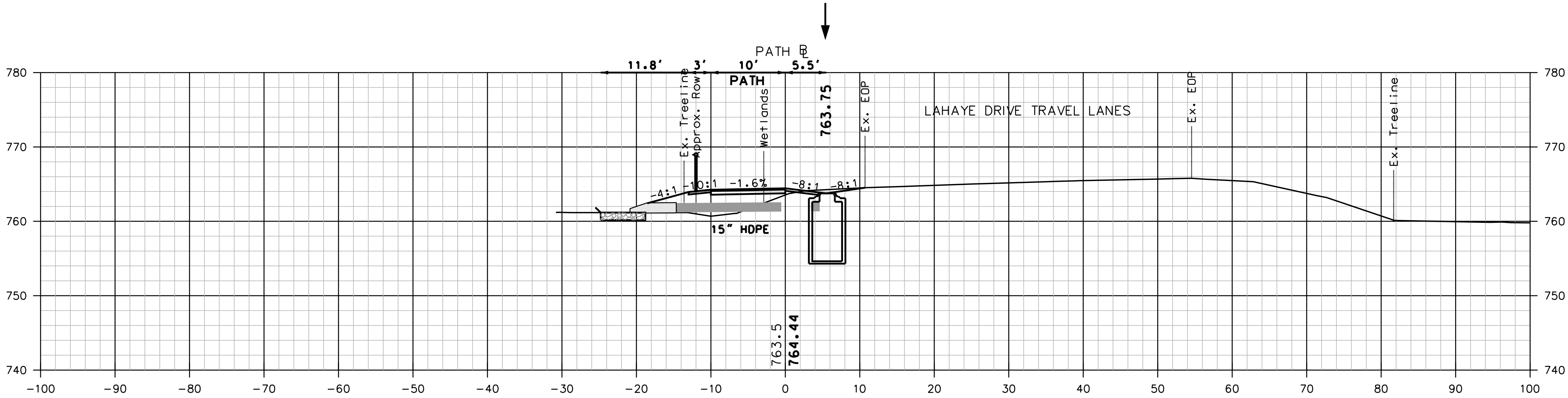
REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED	DATE	DATE	DATE
NEW DESIGN	GMC	1/7/2021	1/7/2021
SHEET CHECKED	JCH		
AS BUILT DETAILS	DATE		

SCALE:
1"= 10' HORIZ.
1"= 10' VERT.



23+50



23+00

NOT FOR CONSTRUCTION

LAHAYE DRIVE

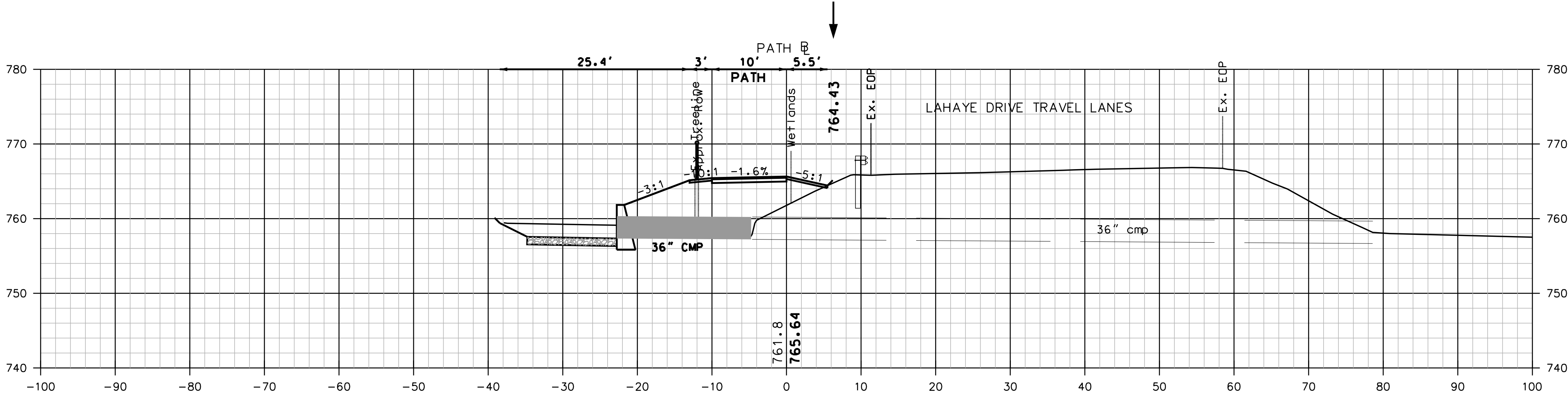
SHEET TOTALS			
COMMON EXCAV.	— C.Y.	ROCK EXCAV.	— C.Y.
FILL	— C.Y.	MUCK EXCAV.	— C.Y.
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
41366XS	41366	15	27



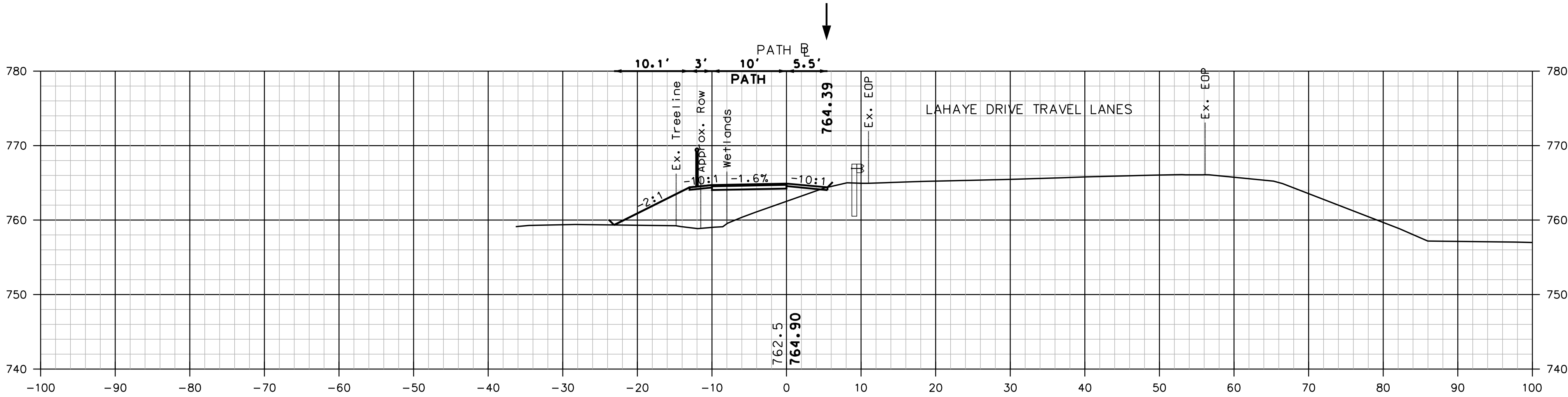
REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED	DATE
NEW DESIGN	DATE 1/7/2021
SHEET CHECKED	DATE 1/7/2021
AS BUILT DETAILS	DATE

SCALE:
1"= 10' HORIZ.
1"= 10' VERT.



24+50



24+00

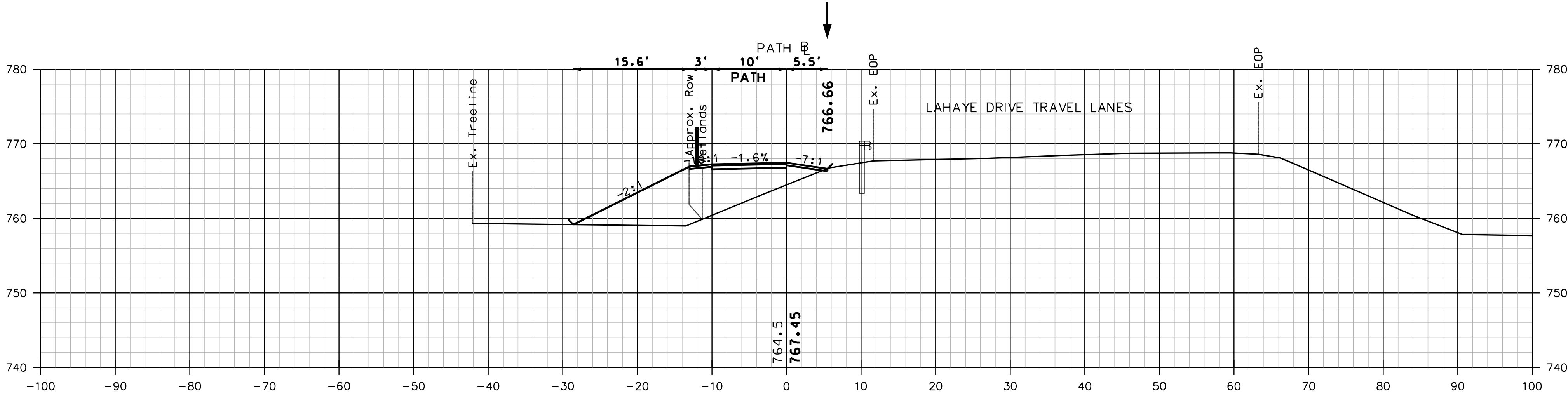
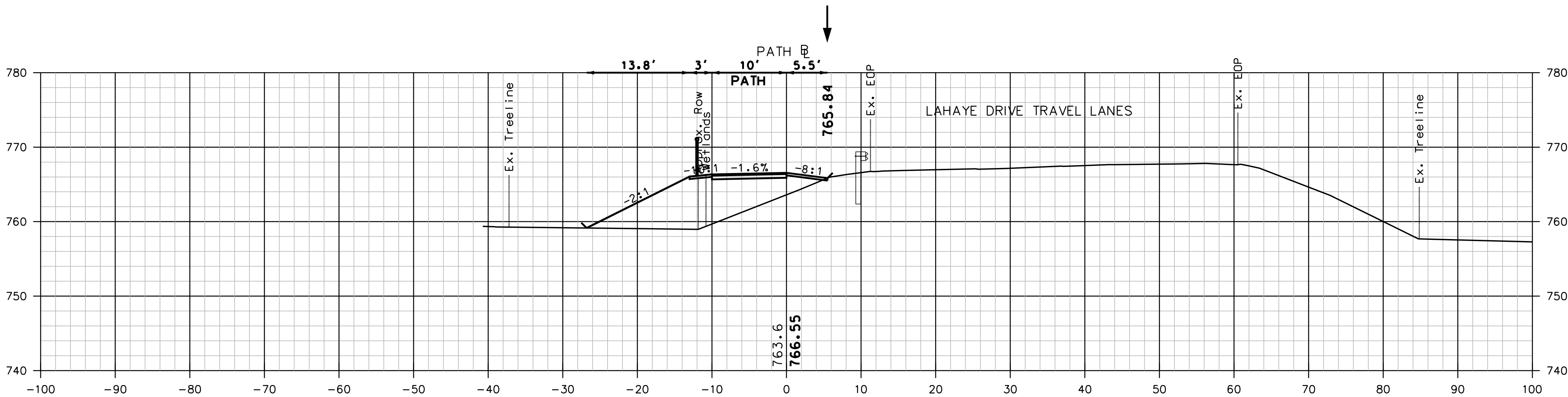
NOT FOR CONSTRUCTION

LAHAYE DRIVE

DuBois & King ^{INC.}	SHEET TOTALS			
	COMMON EXCAV.	— C.Y.	ROCK EXCAV.	— C.Y.
		FILL — C.Y.	MUCK EXCAV.	— C.Y.
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS	
41366XS	41366	16	27	

[illegible]

SDR PROCESSED	DATE
NEW DESIGN	DATE
SHEET CHECKED	DATE
AS BUILT DETAILS	
	DATE

 $25 + 50$ 

25+00

SCALE:
1" = 10' HORIZ.
1" = 10' VERT.

LAHAYE DRIVE



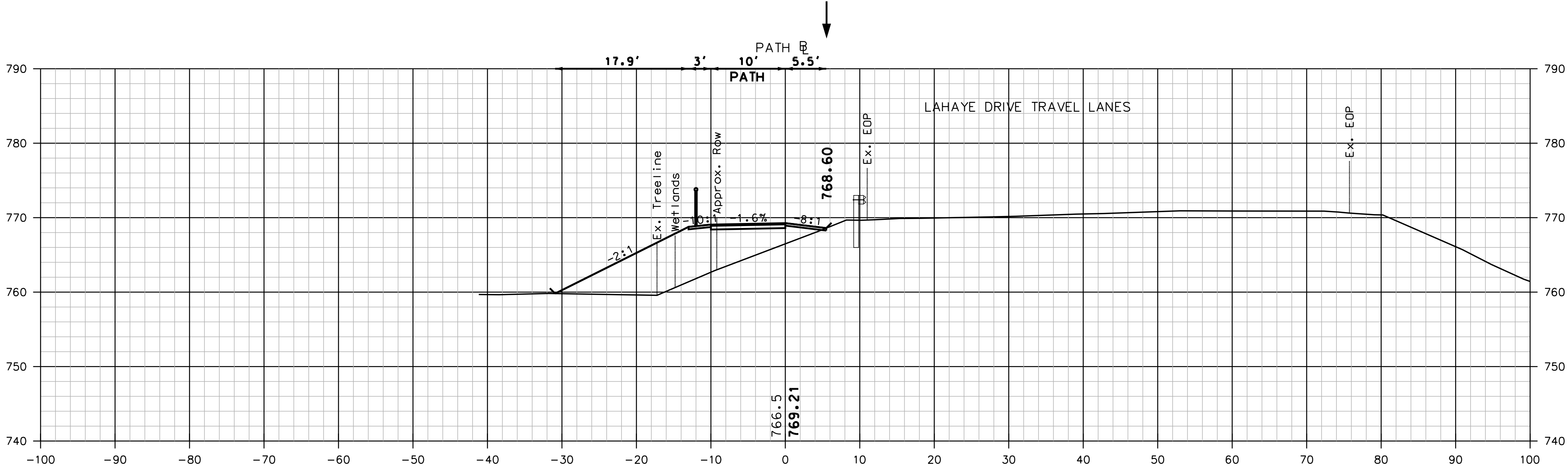
SHEET TOTALS			
COMMON EXCAV. _____	C.Y. _____	ROCK EXCAV. _____	C.Y. _____
FILL _____	C.Y. _____	MUCK EXCAV. _____	C.Y. _____
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
41366XS	41366	17	27

NOT FOR CONSTRUCTION

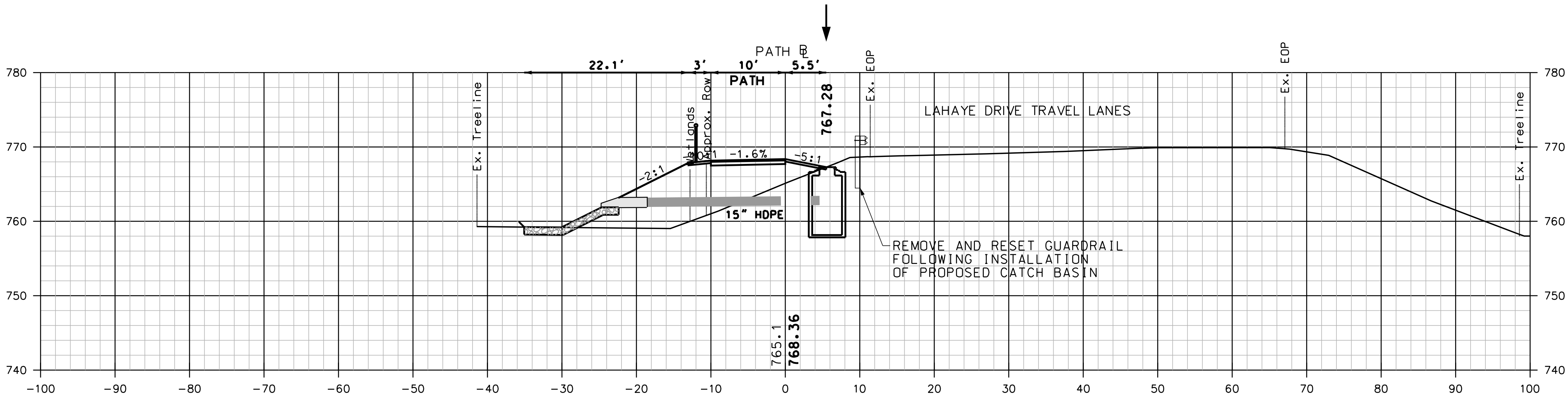
REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED	DATE	DATE	DATE
NEW DESIGN	GMC	1/7/2021	1/7/2021
SHEET CHECKED	JCH		
AS BUILT DETAILS	DATE		

SCALE:
1"= 10' HORIZ.
1"= 10' VERT.



26+50



26+00

NOT FOR CONSTRUCTION

LAHAYE DRIVE

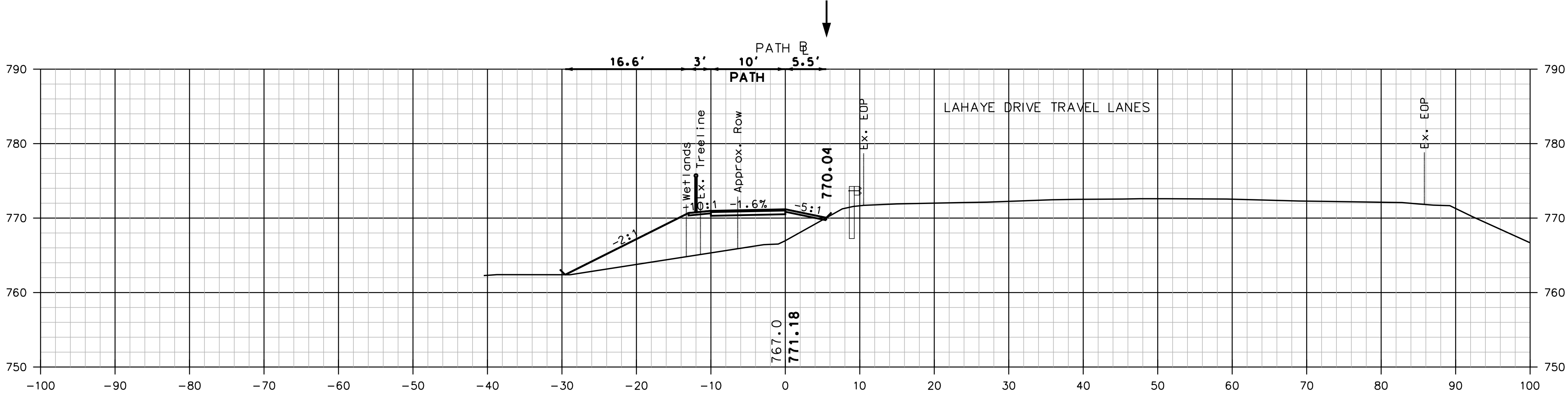
SHEET TOTALS			
COMMON EXCAV.	— C.Y.	ROCK EXCAV.	— C.Y.
FILL	— C.Y.	MUCK EXCAV.	— C.Y.
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
41366XS	41366	18	27

DuBois & King INC.

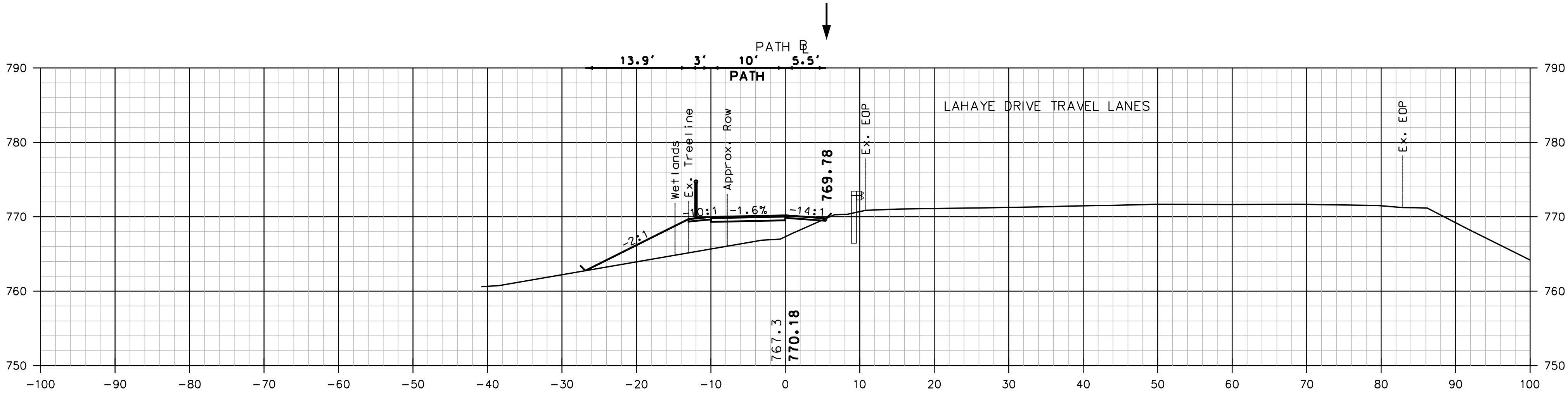
REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED	DATE
NEW DESIGN	DATE
SHEET CHECKED	DATE
AS BUILT DETAILS	DATE

SCALE:
1"= 10' HORIZ.
1"= 10' VERT.



27+50



27+00

NOT FOR CONSTRUCTION

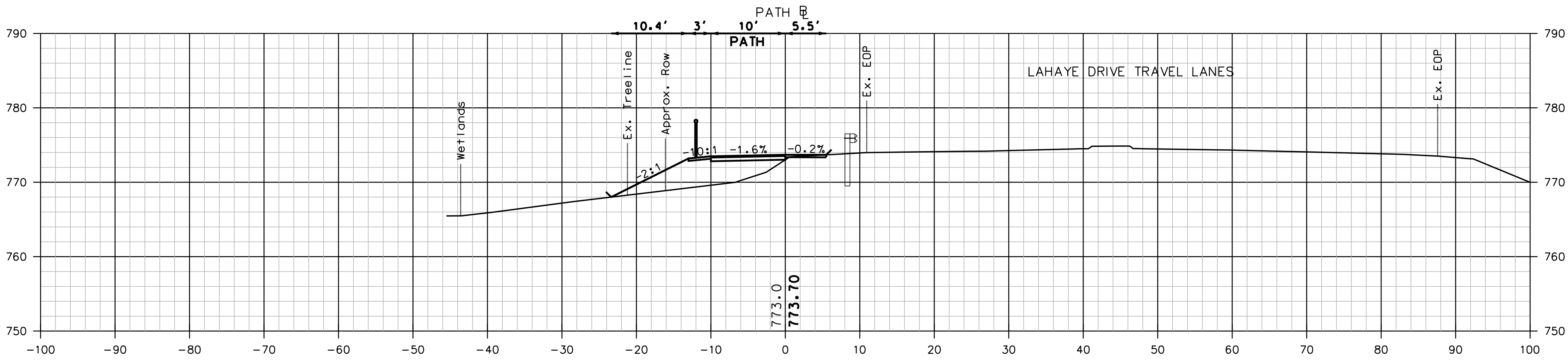
LAHAYE DRIVE

DuBois & King _{INC.}	SHEET TOTALS			
	COMMON EXCAV.	— C.Y.	ROCK EXCAV.	— C.Y.
	FILL	— C.Y.	MUCK EXCAV.	— C.Y.
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS	
41366XS	41366	19	27	

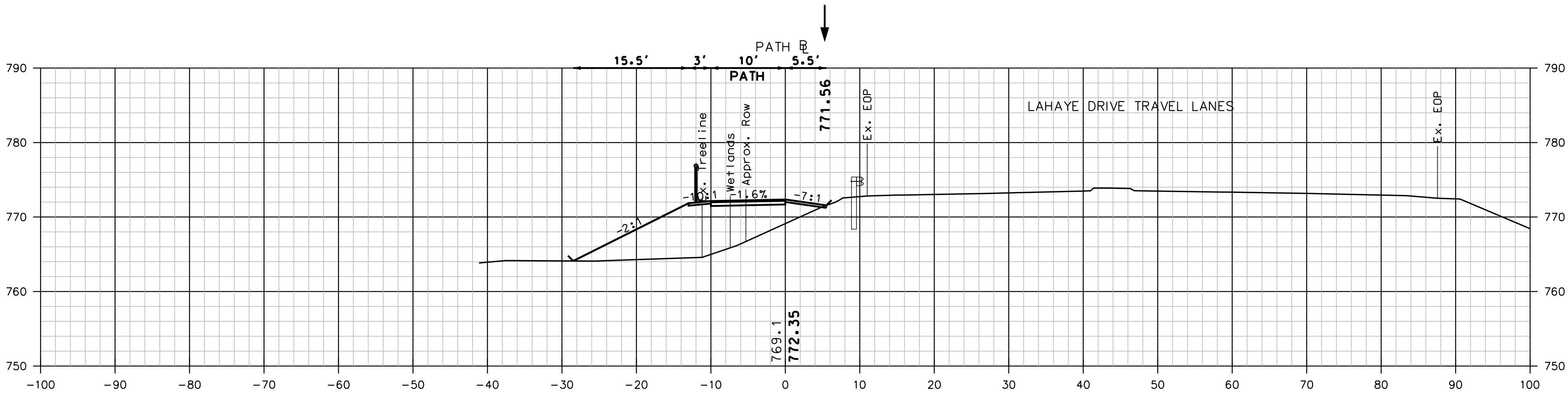
REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED	DATE
NEW DESIGN	DATE 1/7/2021
SHEET CHECKED	DATE 1/7/2021
AS BUILT DETAILS	DATE

SCALE:
1"= 10' HORIZ.
1"= 10' VERT.



28+50



28+00

NOT FOR CONSTRUCTION

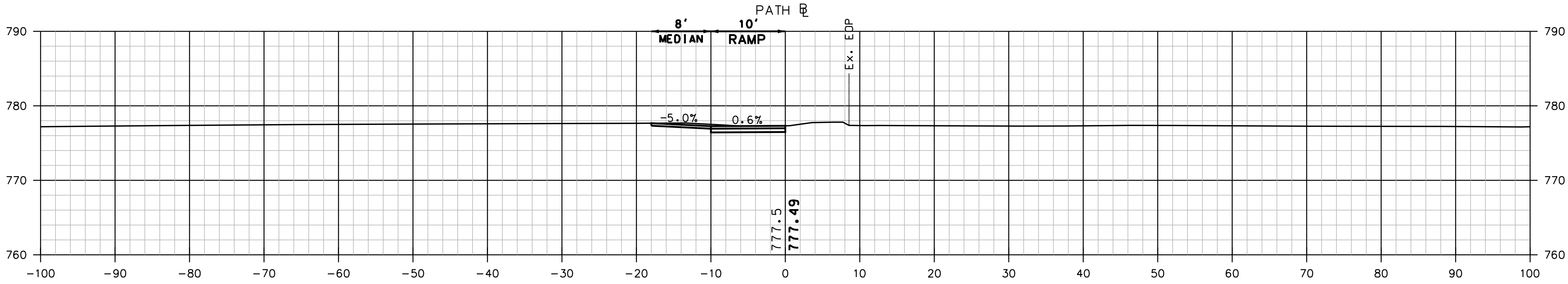
LAHAYE DRIVE

DuBois & King _{INC.}	SHEET TOTALS			
	COMMON EXCAV.	— C.Y.	ROCK EXCAV.	— C.Y.
		FILL — C.Y.	MUCK EXCAV.	— C.Y.
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS	
41366XS	41366	20	27	

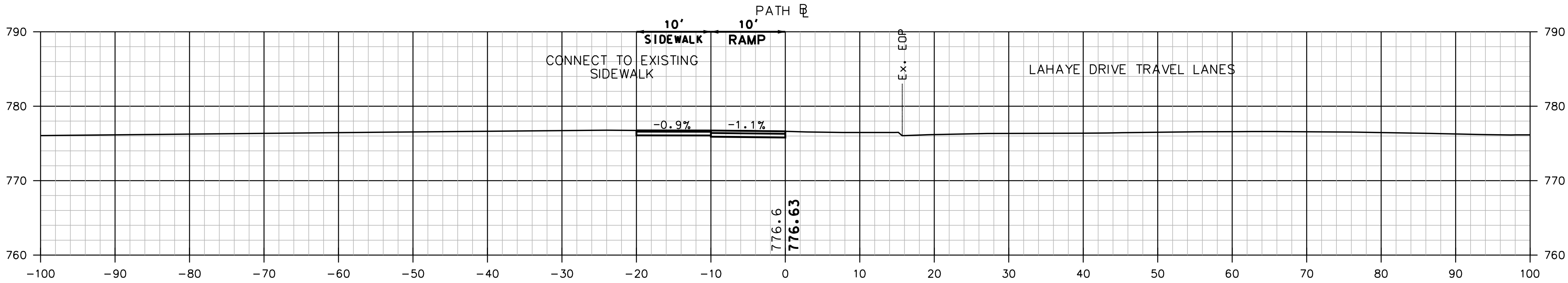
REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED	DATE	DATE	DATE
NEW DESIGN	GMC	1/7/2021	1/7/2021
SHEET CHECKED	JCH		
AS BUILT DETAILS	DATE		

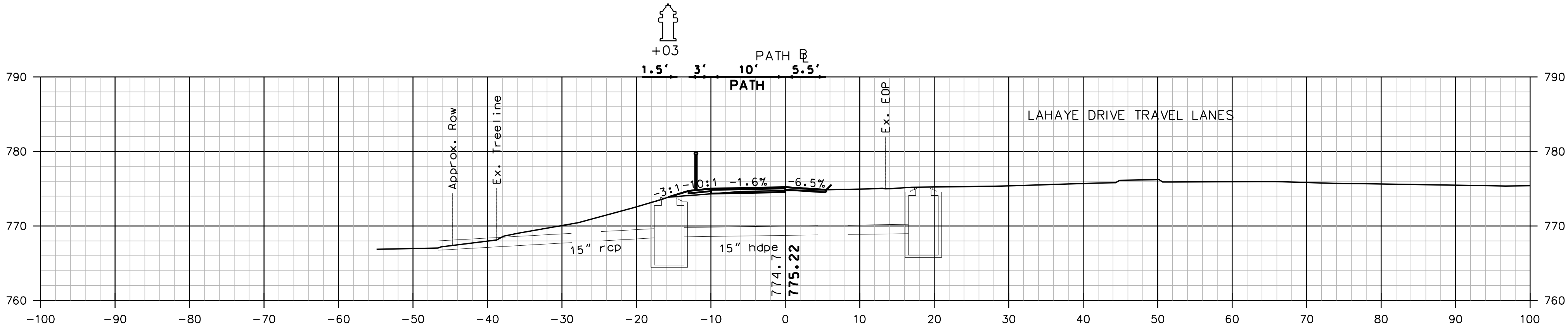
SCALE:
1"= 10' HORIZ.
1"= 10' VERT.



30+00



29+50



29+00

NOT FOR CONSTRUCTION

LAHAYE DRIVE

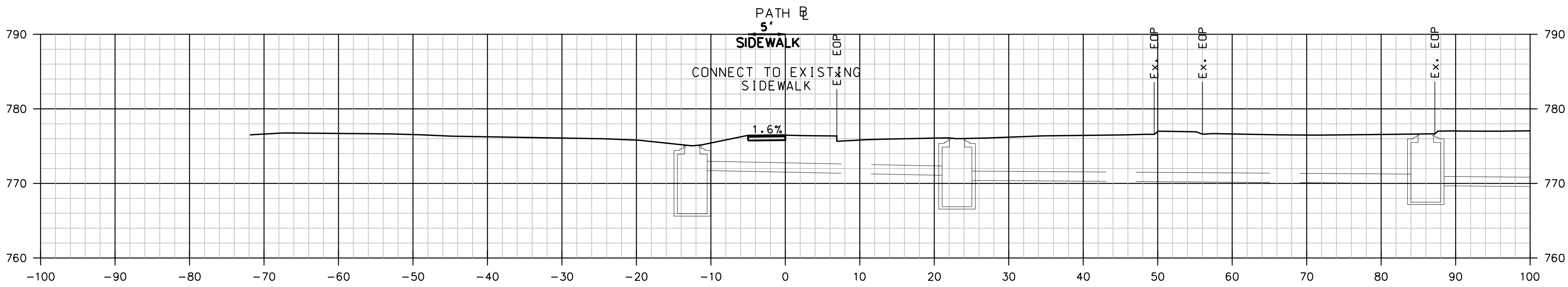


SHEET TOTALS			
COMMON EXCAV.	— C.Y.	ROCK EXCAV.	— C.Y.
FILL	— C.Y.	MUCK EXCAV.	— C.Y.
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
41366XS	41366	21	27

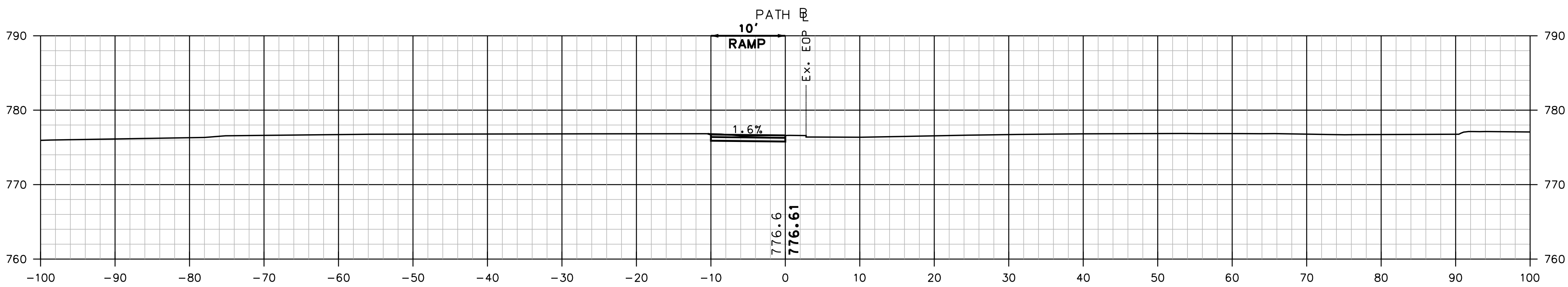
REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED		DATE	
NEW DESIGN	GMC	DATE	1/7/2021
SHEET CHECKED	JCH	DATE	1/7/2021
AS BUILT DETAILS		DATE	

LIMIT OF WORK STA. 30+89.00



30+89



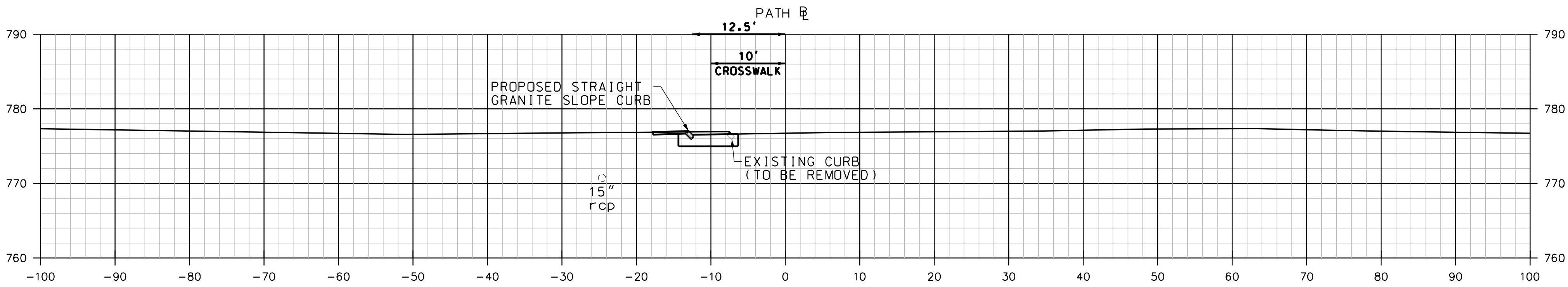
30+50

SHEET TOTALS			
COMMON EXCAV.	- C.Y.	ROCK EXCAV.	- C.Y.
FILL	- C.Y.	MUCK EXCAV.	- C.Y.
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
41366xs	41366	22	27

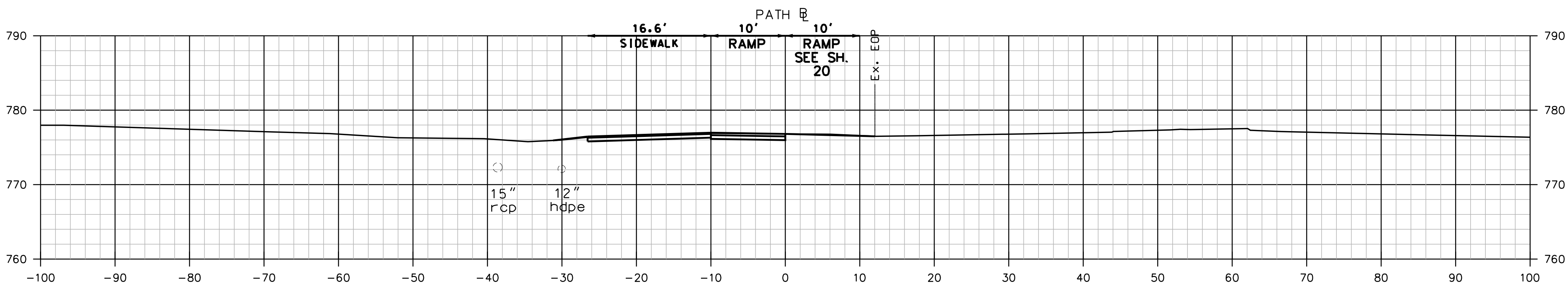
LAHAYE DRIVE

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED	DATE
NEW DESIGN	DATE 1/7/2021
SHEET CHECKED JCH	DATE 1/7/2021
AS BUILT DETAILS	DATE



40+57



40+00

LIMIT OF WORK STA. 40+00.00

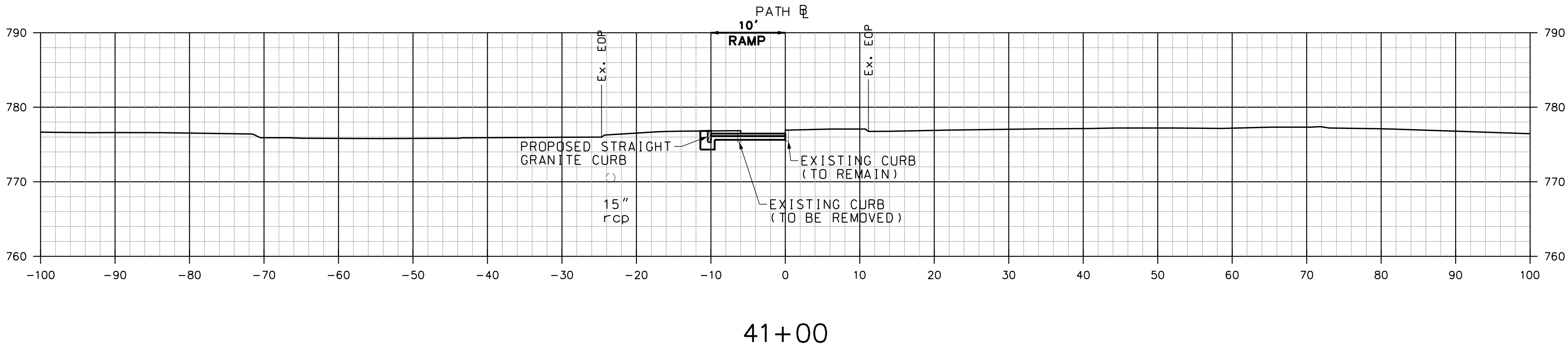
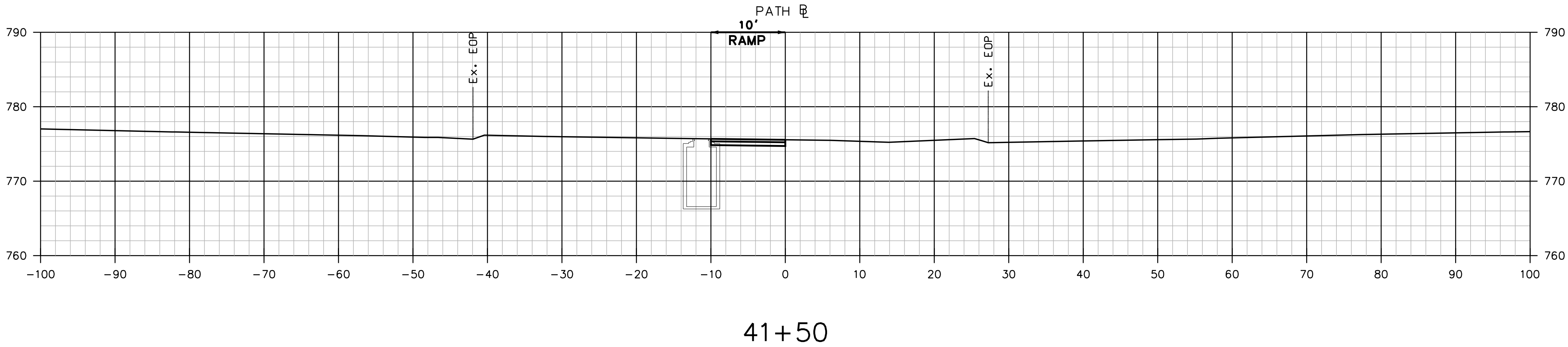
SHEET TOTALS			
COMMON EXCAV.	— C.Y.	ROCK EXCAV.	— C.Y.
FILL	— C.Y.	MUCK EXCAV.	— C.Y.
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
41366XS	41366	23	27

CENTERRA PARKWAY

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED	DATE	DATE	DATE
NEW DESIGN	GMC	1/7/2021	1/7/2021
SHEET CHECKED	JCH		
AS BUILT DETAILS	DATE		

LIMIT OF WORK STA. 41+53.00



SHEET TOTALS			
COMMON EXCAV.	— C.Y.	ROCK EXCAV.	— C.Y.
FILL	— C.Y.	MUCK EXCAV.	— C.Y.
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
41366XS	41366	24	27

CENTERRA PARKWAY

REVISIONS AFTER PROPOSAL		STATION		DESCRIPTION	
NUMBER	DATE	STATION	DATE	NUMBER	DATE
SDR PROCESSED	NAME1	DATE	DATE1		
NEW DESIGN	NAME2	DATE	DATE2		
SHEET CHECKED	NAME3	DATE	DATE3		
AS BUILT DETAILS		DATE			

STA. 20+10.00
BEGIN CONSTRUCTION

STA 19+80.00
LIMIT OF ROW

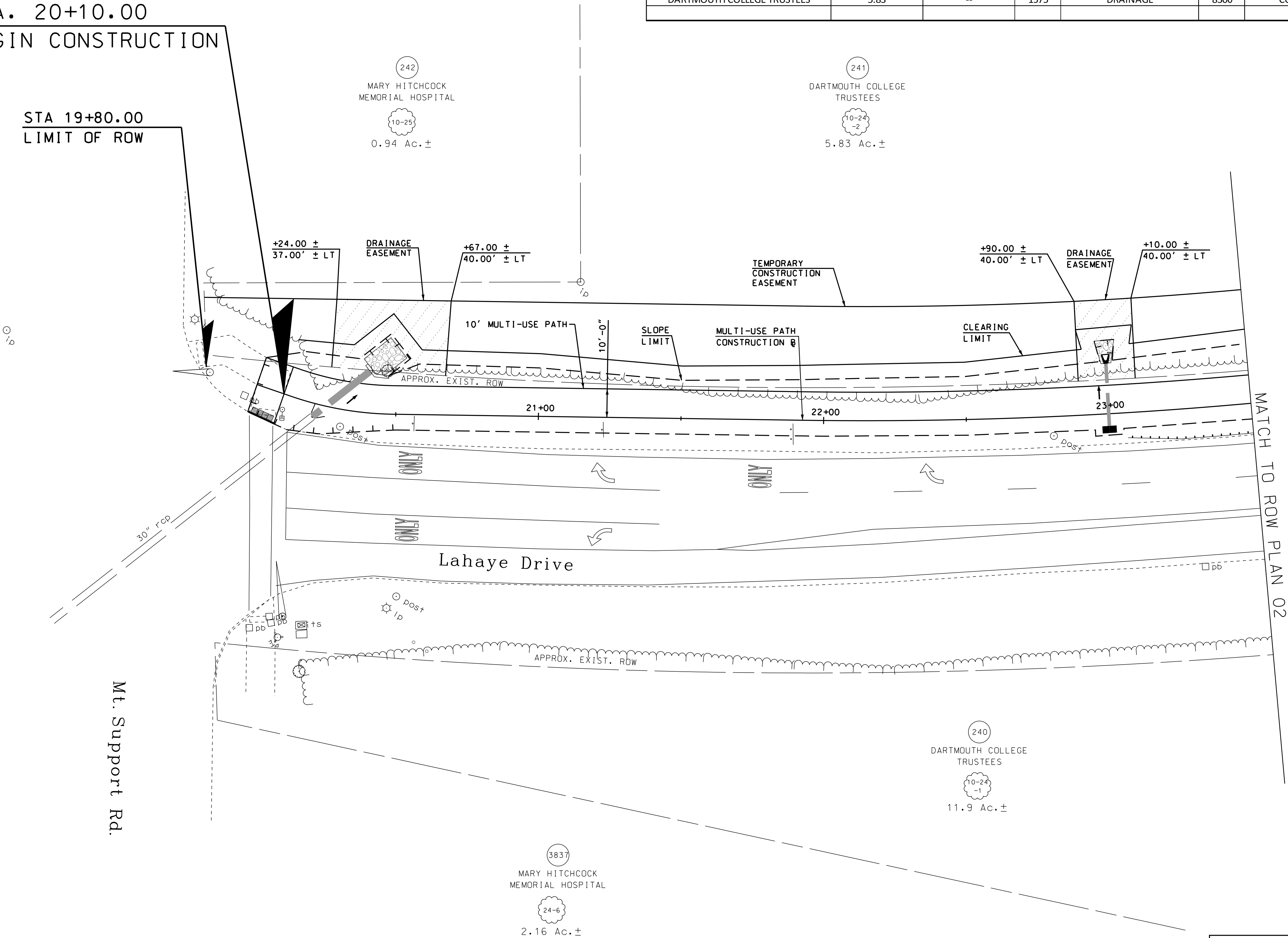
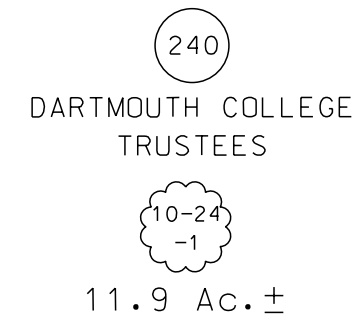
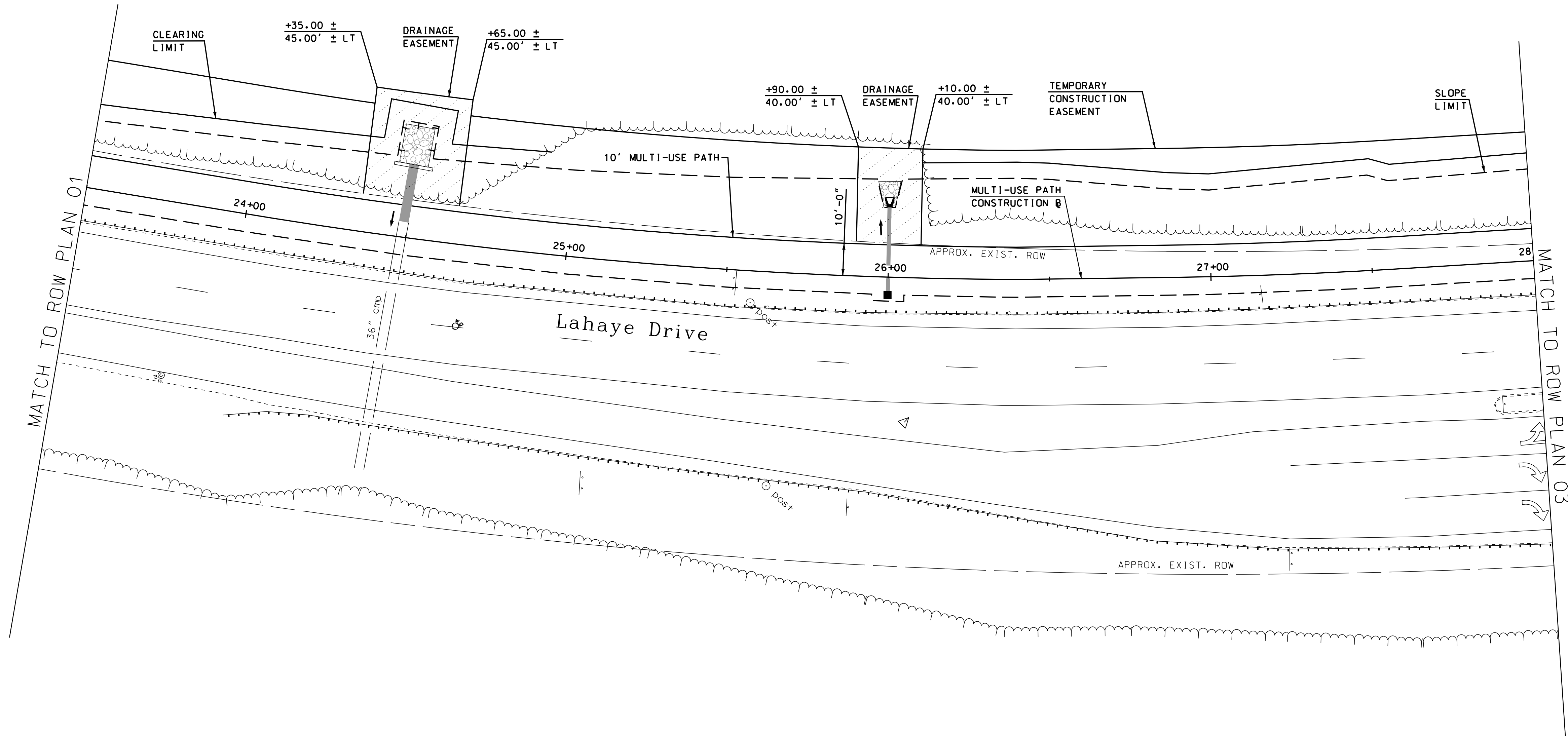
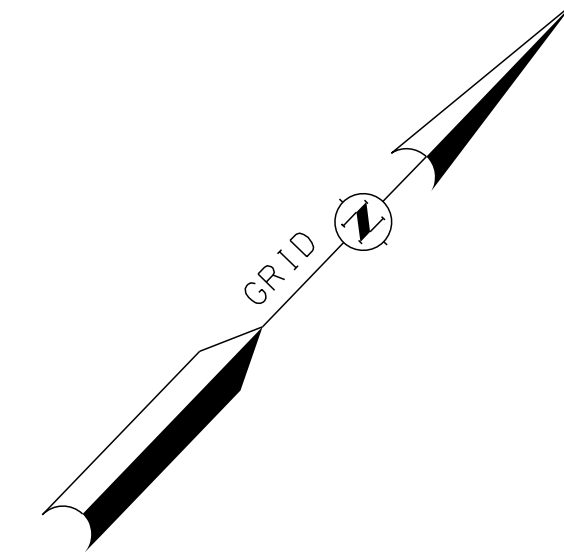
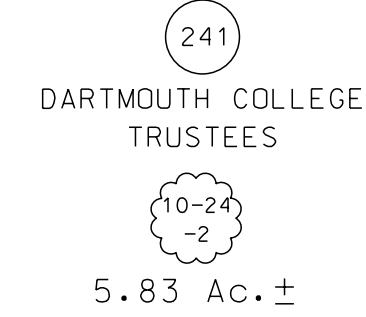


TABLE OF PROPERTY ACQUISITION						
PROPERTY OWNER	TOTAL AREA OF PARCEL	AREA OF ACQUISITION	EASEMENTS			
	AC	AC	SF	PERMANENT TYPE	SF	TEMPORARY TYPE
DARTMOUTH COLLEGE TRUSTEES	5.83	--	1575	DRAINAGE	8300	CONSTRUCTION

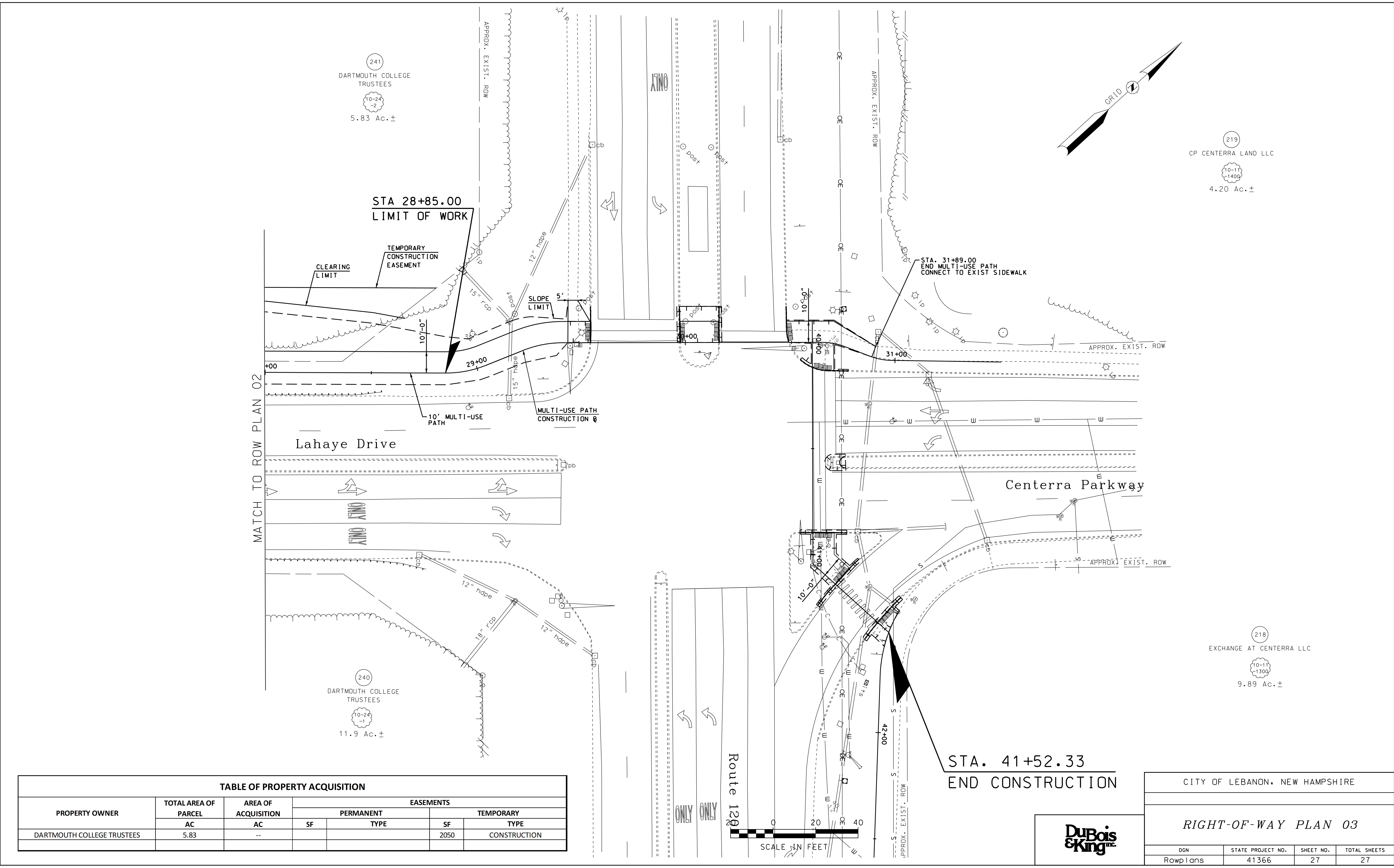
CITY OF LEBANON, NEW HAMPSHIRE			
RIGHT-OF-WAY PLAN 01			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
RowPlans	41366	25	27

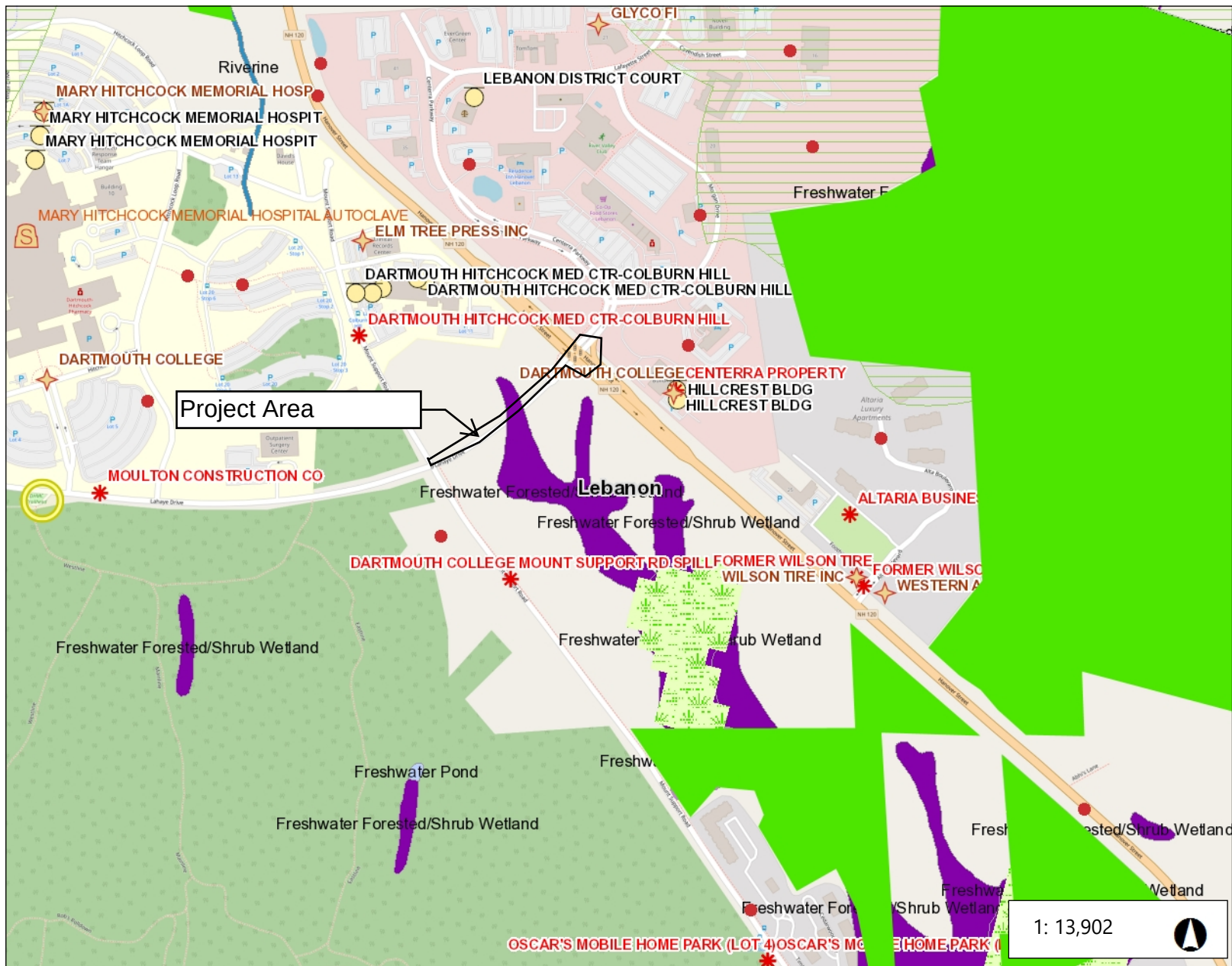


TABLE OF PROPERTY ACQUISITION						
PROPERTY OWNER	TOTAL AREA OF PARCEL	AREA OF ACQUISITION	EASEMENTS			
			PERMANENT		TEMPORARY	
	AC	AC	SF	TYPE	SF	TYPE
DARTMOUTH COLLEGE TRUSTEES	5.83	--	1600	DRAINAGE	11950	CONSTRUCTION



CITY OF LEBANON, NEW HAMPSHIRE			
<i>RIGHT-OF-WAY PLAN 02</i>			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
Rowplans	41366	26	27





Legend

- Aboveground Storage Tank Sit
- Asbestos Disposal Sites
- Automobile Salvage Yards
- Hazardous Waste Generators
- NPDES Outfalls
- Outstanding Resource Water V
- Remediation Sites
- Solid Waste Facilities
- Underground Storage Tank Sit
- NHDES Wetland and Shorelar
- Shoreland Act Urban Exemptic
- 4th Order and Above Streams
- 4
- 5
- 6
- 7
- Shoreland Jurisdiction - Lakes
- NH City/Town Boundaries
- Flood Plain Wetlands Adjacent
- Prime Wetlands with 100 ft Bul
- Prime Wetlands
- Peatlands
- Designated Rivers
- Subject to SWQPA
- Not Subject to SWQPA
- FEMA Floodplains

Notes

0.4 0 0.22 0.4 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere
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This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

**Agenda
Conservation Commission
May 13, 2021**

**Agenda Item #4A
Study Items**

**Review and Comment
regarding proposed COL Tree
Advisory Board**

Lebanon Tree Advisory Board Charter

Purpose / Charge

The Tree Board shall provide support, education and advocacy for trees in the City of Lebanon. Working through the Recreation Arts & Parks Department staff liaison with the City of Lebanon, the Board shall:

aid in enforcement / oversight

1. Promote tree health and vibrancy through proper planning, documentation, protection, education, planting programs, and advocacy throughout the City.
2. Share educational resources to assist landowners with the establishment and care of trees on private property.
3. Consult and coordinate with City administration and boards regarding existing policies and future projects affecting trees. These include City and State public works and public utilities projects.
4. Establish policies for consideration and adoption by the Lebanon City Council that provide clear directives for planting, maintaining and/or removing trees from public spaces and rights of way.
5. Seek funding opportunities from organizations and individuals to support tree initiatives.
6. Partner with local utility companies to better understand their requirements, and to educate residents of Lebanon about their rights and responsibilities with respect to trees and utilities.
7. Establish a GIS data collection system which treats trees in public spaces as critical infrastructure. This includes data on urban tree canopy, heat islands, and flood prevention.

Membership

Board members shall be appointed by the City Manager and consist of 5-7 citizen members, who will serve 3-year terms. Other City department staff shall provide a liaison when appropriate (Leb Rec, Planning, Public Works Departments).

Members shall elect a chair, vice chair and secretary.

A volunteer Tree Warden shall sit on the Board, ex officio.

Meetings shall be every two months at a City meeting facility, or via a digital meeting platform.