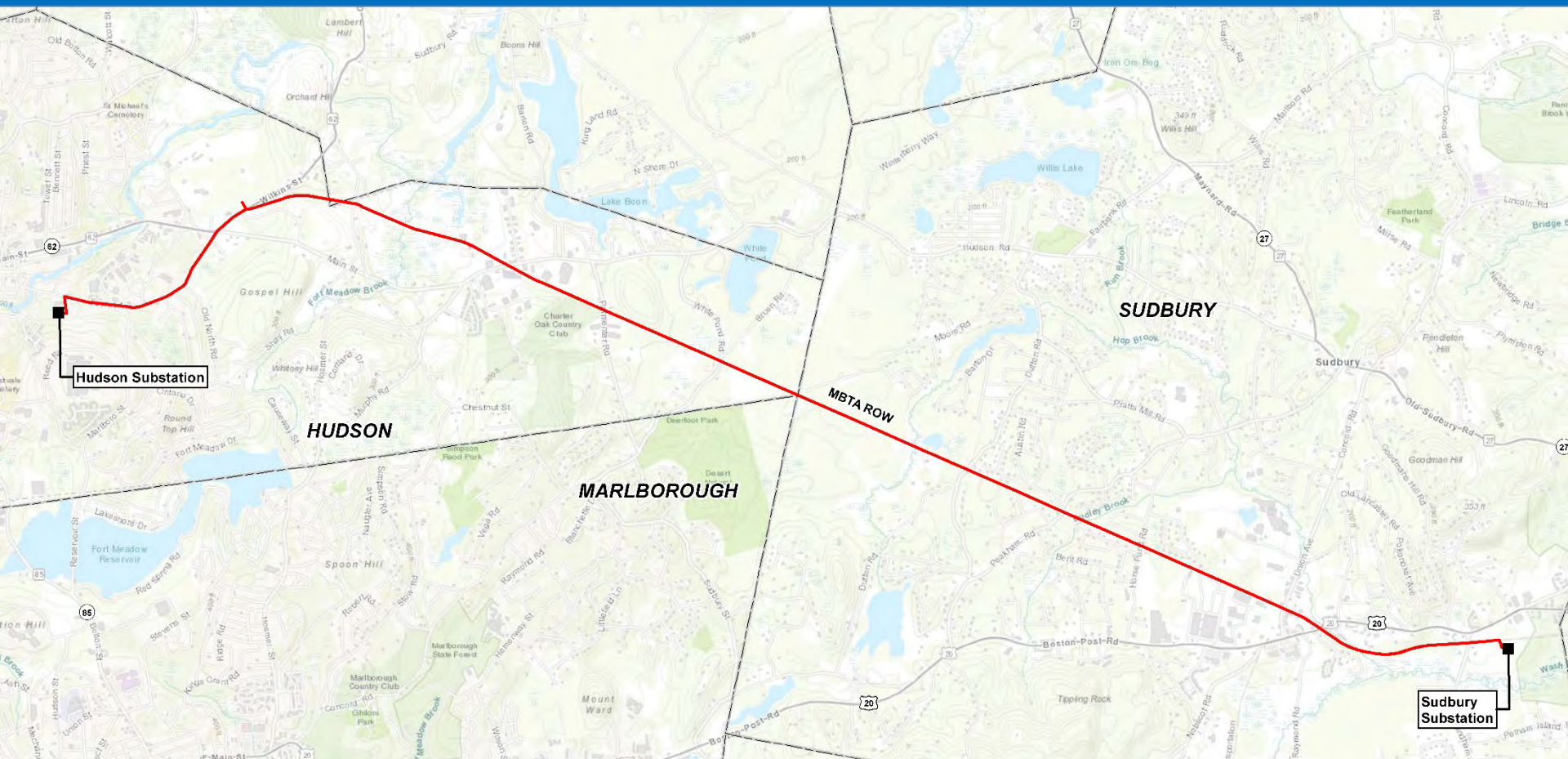


Sudbury-Hudson Transmission Reliability and Mass. Central Rail Trail Project

Section 106 Consultation Meeting
Sudbury Historical Commission
March 16, 2022

dcr EVERSOURCE
Massachusetts



Project Overview

- Joint filing
 - Massachusetts Department of Conservation and Recreation Mass Central Rail Trail (“MCRT”)
 - Eversource Sudbury-Hudson Transmission Reliability Project
- Proposed bike path with a buried transmission line in the same former rail corridor
- Approximately 9.0 miles
- Phased construction sequence
 - Majority of the Project ground disturbance will be located on the existing rail bed and areas immediately adjacent with exceptions such as the manhole areas and some areas closest to roadways (to ensure safety for MCRT).



Cultural Resource Identification Efforts

- **Reconnaissance Level Historic Properties Survey**, Sudbury Hudson Transmission Reliability Project, Town of Sudbury, City of Marlborough, Town of Stow, and Town of Hudson, Middlesex County, Massachusetts, Prepared by Commonwealth Heritage Group, Inc. Littleton, Massachusetts, December 2017.
- **Archaeological Reconnaissance Survey** for the Sudbury-Hudson Transmission Reliability Project, Towns of Sudbury, Hudson, Marlborough, and Stow, Middlesex County, Massachusetts, Prepared by Commonwealth Heritage Group, Inc. Littleton, Massachusetts, February 2018.
- **Archaeological Intensive (Locational) Survey** for the Sudbury-Hudson Transmission Reliability Project, Towns of Sudbury, Hudson, Marlborough, and Stow, Middlesex County, Massachusetts, Prepared by Commonwealth Heritage Group, Inc. Littleton, Massachusetts, May 2019.
- **Form A – Area – Massachusetts Historical Commission, Central Massachusetts Railroad Corridor Historic District in Town of Sudbury**, Recorded by: Stacy E. Spies for the Sudbury Historical Commission, December 2020.
- **Form A – Area – Massachusetts Historical Commission, Central Massachusetts Railroad Corridor in Town of Hudson**, Recorded by: Nicole Benjamin-Ma and David Gutbrod, December 2021.

Summary of Archaeological Work Completed for the Project

- Phase IA Reconnaissance Survey
 - Entire width of MBTA ROW associated with the Project was assessed for areas that could contain significant archaeological resources
 - *Wetlands and highly sloped areas not considered sensitive due to existing predictive models for southern New England which rank these areas as low sensitivity based on established settlement data.*
 - *Rail beds and other areas subjected to significant previous ground disturbance (e.g., sand and gravel pits) generally are not considered sensitive due to cutaway of culture-bearing soils and filling of low terrain including wetlands.*



Laying rails on a railbed along the Central Mass. line in 1903. Note cutting of the original ground surface for the rail bed (Boston & Maine Hist. Society, 2008).



Trestle over Sudbury River west of Wayland in 1882. Note fill placed on original ground surface for the rail bed near waterways (Boston & Maine Hist. Society, 2008).

Summary of Archaeological Work Completed for the Project

- Phase IB Intensive (Locational) Survey
 - Shovel testing survey targeting areas within the MBTA ROW with potential for containing significant archaeological resources
 - Survey scope and methods approved by the Massachusetts Historical Commission during State Archaeologist Permit Application process (950 CMR 70).
 - In-field monitoring of survey by Mariah Hendricks of Mashpee Wampanoag Tribe.


Archaeological Intensive (Locational) Survey for the Sudbury-Hudson Transmission Reliability Project, Towns of Sudbury, Hudson, Marlborough, and Stow, Middlesex County, Massachusetts



Prepared for
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Westwood, Massachusetts

Submitted to
The Massachusetts Historical
Commission
Boston, Massachusetts

Prepared by
Commonwealth Heritage Group, Inc.
Littleton, Massachusetts

 COMMONWEALTH
HERITAGE GROUP

May 2019

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Summary of Archaeological Work Completed for the Project

- Phase IB Intensive (Locational) Survey – Historic archaeological resources
 - Eight historic sites identified within MBTA ROW; six of these sites are associated with the Central Massachusetts Railroad Corridor Historic District.
 - Six of the sites are completely located outside Project LOW and will be avoided by the Project; two are partially within the LOW and protection measures outlined in the HPAPP will be employed to avoid impacts to the resources.



Summary of Archaeological Work Completed for the Project

- Phase IB Intensive (Locational) Survey – Precontact archaeological resources
 - Six precontact sites and two precontact find spots identified; two of the sites are recommended potentially eligible for the National Register of Historic Places, are located outside the LOW, and will be avoided by the Project.
 - Typically, the probability of encountering significant precontact sites (e.g, landing sites) is increased near waterways, but results of the Project's Phase IB intensive (locational) survey in such areas show significant previous disturbance resulting from construction of the rail bed or other activities such as sand extraction and other modern development; one precontact site was identified adjacent to a waterway, but will be avoided by the Project.

Summary of Archaeological Work Completed for the Project



Hop Brook Crossing I
Bridge #127
(Sudbury – STA 725)



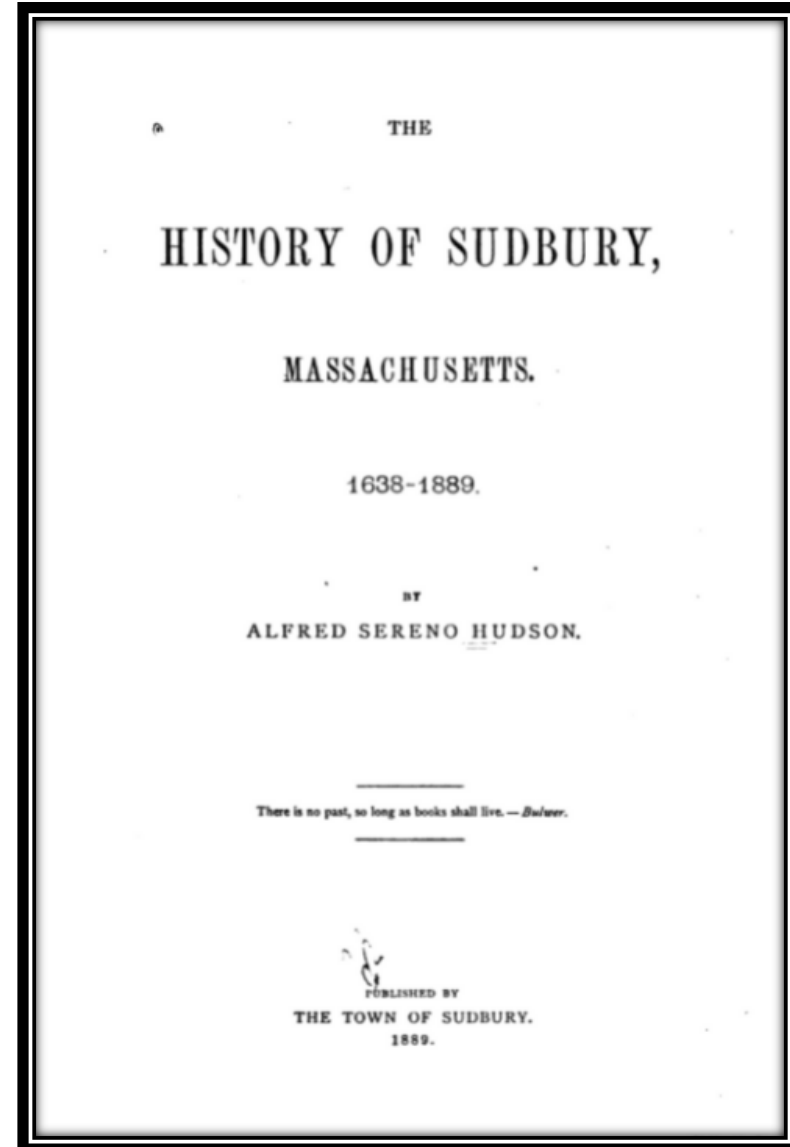
Hop Brook Crossing II - Bridge #128
(Sudbury – STA 400)



Fort Meadow Brook Crossing - Bridge #130
(Hudson - STA 149)

Summary of Archaeological Work Completed for the Project

- Hudson's 1889 *History of Sudbury*
 - Reviewed for CHG's Phase IA survey
 - *History of Sudbury* notes information on 12 ancient Native American sites.
 - Based on locational information provided in that history, it was possible to plot out approximate locations for the 12 site areas, numbered sequentially as History of Sudbury Precontact (HSP) 1 to HSP 12, using the 1856 Walling atlas map.
 - Only HSP 2 and HSP 5 of the 12 precontact sites are adjacent to the Project route (see Figure 5 of Phase IB Intensive Survey Report)



Summary of Archaeological Work Completed for the Project

- Hudson's 1889 *History of Sudbury*

- **Two sites near the Project route, but no evidence of these resources uncovered in Phase IB field effort.**
- **HSP 2** - "on the Coolidge estate, by the Landham Meadows, a little south of the East Sudbury depot. This spot is of a light sandy soil and has a sand pit within it" (Hudson 1889). Phase IB testing was conducted in this area and encountered significant disturbance, with fill layers over deeply truncated soil horizons at 10 of 13 test pits; no precontact artifacts were encountered in any of the test pits.
- **HSP 5** - "on the east side of Mill Brook, on what was lately the farm of Israel How Brown. The spot is a little southeasterly of a rock by the brook called "Great Rock," and midway between that and the Goodnow Library. On this place, which is a light, loamy upland, within the space of a few rods have been plowed up quite a quantity of loose, discolored stones, that look as if they had been subjected to the action of fire, and also coal and charred pieces of wood." (Hudson 1889). Phase IB testing in the area encountered significant disturbance, with deep fill layers over deeply truncated C horizon or filled wetlands soil in all of the test pits; no precontact artifacts were encountered in any of the test pits.

Summary of Archaeological Work Completed for the Project



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- In sum, only two significant identified archaeological resources are located partially within the LOW and will be protected using measures outlined in the HPAPP.
- If any previously unidentified archaeological resources are encountered during construction, the process outlined in the Post-Review Discoveries Plan will apply.

Updates Since September 28, 2021, Consultation Meeting

Since September 28, 2021, Consultation Meeting



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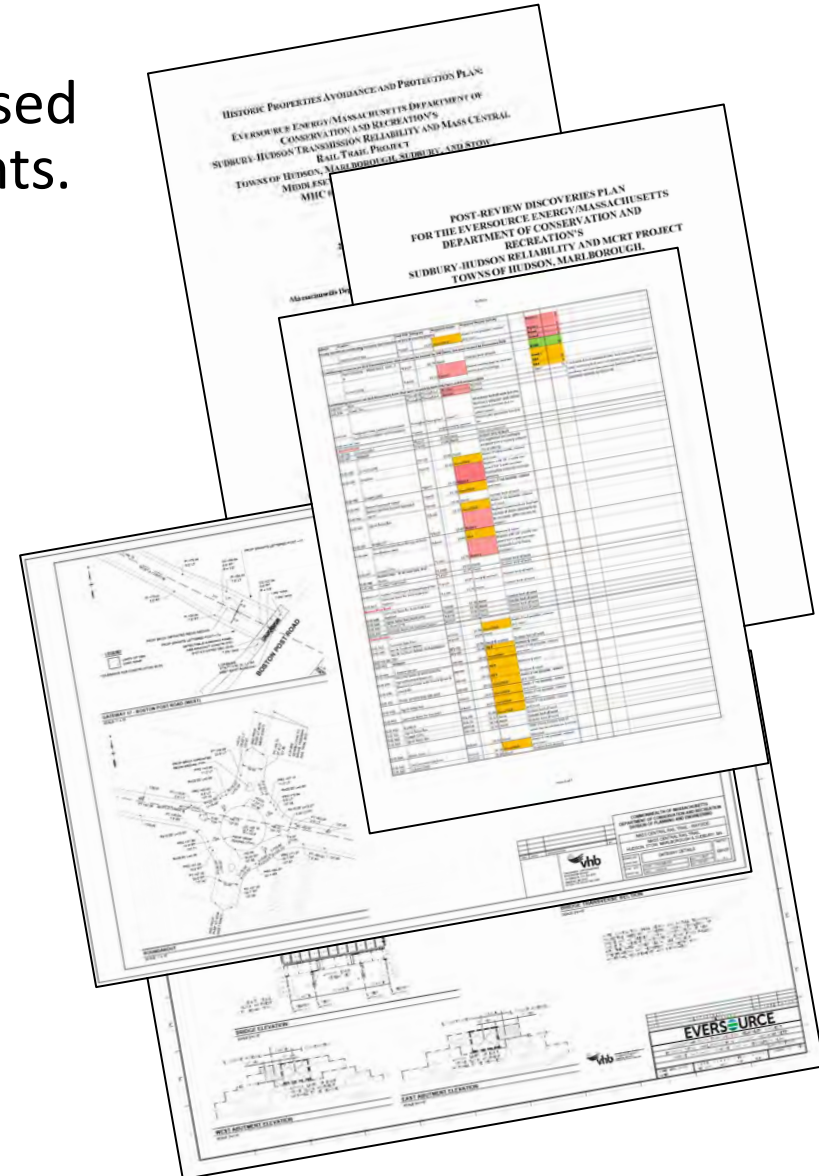
- October 25, 2021: SHC provided comment letter to USACE
- December 17, 2021: USACE sent Determination of Effect and Revised Permit Area and Area of Potential Effect (APE) Boundaries to all consulting parties
 - Applicants submitted inventory form to expand CMRRCHD to include Hudson portion of corridor
- January 14, 2022: SHC provided comment letter to USACE
- January 27, 2022: Eversource conducted site walk with contractor to review railroad features
- February 10, 2022: MHC provided comment letter to USACE (concurrence with APE and determination of effects)



Since September 28, 2021, Consultation Meeting

- February 15, 2022: USACE sent Revised MOA and Response to SHC Comments. Other attachments included:

- Updated Historic Properties Avoidance and Protection Plan (HPAPP) dated February 11, 2022
- Updated Post-Review Discoveries Plan dated February 11, 2022
- Updated Project Plans for Phases 1 and 2
- Updated chart of all identified impacts to features of the CMRRCHD dated February 11, 2022



Summary of Updated Documents

- Revised Memorandum of Agreement

- Historic Properties Avoidance and Protection Measures

- Mitigation Measures, including:

- *Updated inventory forms for Bridges 127, 128, and 130*

- *HAER Level II documentation of Bridges 127 and 128*

- *HABS/HAER photo documentation of Bridge 130*

- *24"x36" interpretive panels:*

- At Bridges 127, 128, and 130 (designed in consult with local Historical Commissions)

- At Diamond Junction

- Describing general history of Massachusetts Central Railroad (one each designed and located in consult with local Historical Commissions)

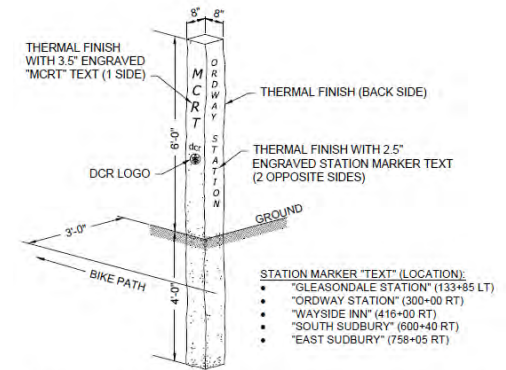


Summary of Updated Documents

- Revised Memorandum of Agreement (continued)

- Mitigation Measures, including:

- *Up to 15 feature markers (18" square signs on posts), including those for features to be removed, in consult with local Historical Commissions*
- *Rehabilitation of Bridge 128, consistent with Secretary of the Interior's Standards and Guidelines for Rehabilitation*
- *Granite markers (6 ft tall, 8"x8", lettered on 2 sides) at each railroad station archaeological site*
- *Retention of representative sections of rail, one pair each of 2 different lengths, removed at the bolts, stacked at the Section Tool House, and donated to Sudbury Historical Commission*



GRANITE STATION PILLAR
SCALE: N.T.S.



Summary of Updated Documents

- Response to Comments from the Sudbury Historical Commission
 - Addresses comments from letters dated October 25, 2021, and January 14, 2022
 - Confirmation of DCR's role as co-applicant
 - Discussion of alternatives for bridge work
 - Information re: proposed actions for Diamond Junction, Distant Approach Signals, and Battery Wells, Telegraph Poles, and Culverts
 - Clarification re: timing of removal and resetting of features
 - Confirmation of eligibility of contributing resources



Summary of Updated Documents

- Historic Properties Avoidance and Protection Plan (HPAPP)
 - Inclusion of both Phases of Project
 - List of CMRRCHD contributing resources, location, and proposed action for each
 - Guidelines for removal and resetting of railroad features identified as contributing resources
 - Pre-construction preparation (inspection, photography, briefing, fencing)
 - Construction-phase activities (avoidance, monitoring, specific removal/preservation/resetting methods, reporting/corrective actions)
 - Post-construction inspections (inspection, photography, fence removal, memorandum)



Summary of Updated Documents

- Post-Review Discoveries Plan

- Unanticipated Discoveries of Archaeological Resources

- *Training*

- *Notification--Updated distribution of discovery memorandum to all consulting parties*

- Federal, State, Tribal, and Project Contacts

- *Updated contact information for Narragansett THPO and Sudbury Historical Commission*

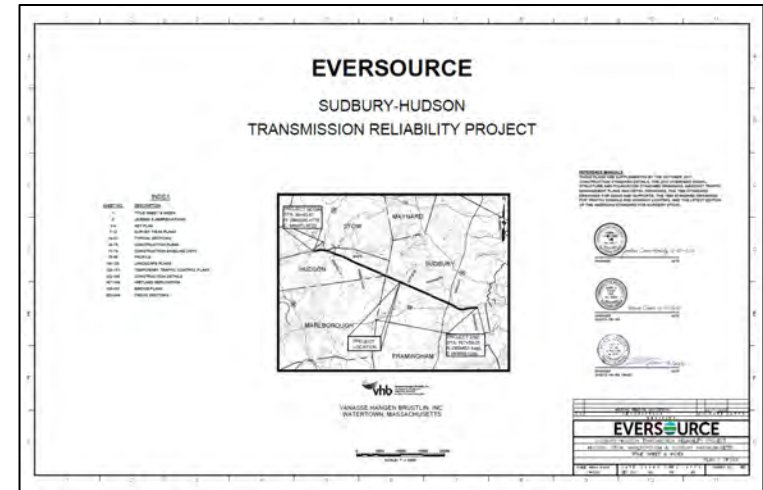
- Updated figures to include both Phases of Project



Summary of Updated Documents

- Updated Project Plans

- Includes all railroad resources and proposed action for each
- Typical construction detail for removal and resetting of railroad features
- Bridge details (including abutments)
- Diamond Junction/roundabout details
- Typical construction detail for granite station pillars





Summary of Updated Documents

- Chart of Impacts to Features of the CMRRCHD
 - List of features, location, and proposed action for each, including:
 - *Features in both Sudbury and Hudson*
 - *Distant Approach Signals and Battery Wells*
 - *Telegraph Poles*
 - *Culverts*
 - *Diamond Junction*
 - Updated based on contractor input





Thank you!