

## Appendix A

### Robert John Prowse Portfolio of Bridge Designs

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#### A Note on How This List Was Compiled

The following table was compiled by review of New Hampshire Department of Transportation (NHDOT) bridge plan files at the main office in Concord. Unless otherwise noted, Robert J. Prowse is attributed as the principal designer based on his initials entered in the “designed by” block of the plans. This list is believed to represent a majority of the projects designed by Prowse while working for the New Hampshire State Highway Department from 1934 to 1969, but it is not believed to be a comprehensive list. NHDOT retains plans for bridges that continue in service but does not always retain plans for bridges that are replaced. Plans for replaced bridges are typically sent to the state archives for storage. Stored plans were not readily accessible and may have been disposed of due to retention schedules.

\* A representative selection of Prowse’s plan sheets have been selected for reproduction in this portfolio appendix. The plan sheets are presented in chronological order and follow the table. Special thanks go to the NHDOT bridge department for scanning the plans. An asterisk next to the town name in the table indicates that a plan sheet has been included in the portfolio.

| Date | Town                           | Bridge/Structure   | NHDOT Plan Number | Notes  |
|------|--------------------------------|--|-------------------|--|
| 1934 | Belmont-Tilton *<br>See p.A-16 | Bridge on Winnisquam Rd. over Winnisquam Lake                  | T3                | Adding sidewalk to pre-existing truss bridge   |
| 1934 | Epping                         | Bridge on Southside Rd.  | T13               | Survey drawing of brick-faced, reinforced-concrete rigid frame bridge  |
| 1934 | Littleton                      | Roadway Improvements on Waterford-Littleton Rd.                | P32               | Roadway plans and sections traced by R. J. Prowse.   |
| 1935 | Dover                          | Central Rd. over B&M RR  | T12               | Design of deck slab for steel stringer bridge  |
| 1935 | Gilsum *<br>See p.A-17         | Bridge No. 092/121 (Dartmouth College Rd. over Ashuelot River) | T19               | Design of wingwalls for welded steel rigid frame bridge. Drawings by R. J. Prowse. Design of superstructure by H. E. Langley |
| 1935 | Hampton                        | East Side Rd. over B&M RR                                      | 1-11-1            | Roadway relocation. Drawings traced by R. J. Prowse. Design by RDF   |

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| Date | Town                              | Bridge/Structure   | NHDOT Plan Number | Notes  |
|------|-----------------------------------|--|-------------------|--|
| 1935 | Hampton                           | Bridge No. 1.2V (Lafayette Rd. over B&M RR)                    | 1-11-1            | Section, curb, outlet, and approach roadway drawn by R. J. Prowse. Design by the bridge department                                 |
| 1935 | Haverhill                         | NH 10 over B&M RR  | U2                | Design of crib retaining wall  |
| 1935 | North Hampton *<br>See p.A-18     | Bridge No. 148/132 (Bridge on US 1 over RR, Drakes Overpass)   | U16               | Drawings and design details of 39-ft. T beam bridge  |
| 1935 | Sandwich                          | Whiteface Rd. over Cold River                                  | U23               | 58-ft.-long T beam bridge  |
| 1935 | Thornton                          | Compton Rd. over Mill Brook                                    | U28               | Project plan and profile for 40-ft.-long T beam bridge   |
| 1936 | Bartlett                          | Bridge on US 302 over Rocky Branch                             | 1-12-2            | Riveted Pratt through truss. Drawings by R. J. Prowse. Design by JHW   |
| 1936 | Bellows Falls-Walpole             | Bellows Falls Arch Bridge                                      | 2-13-1-3          | Design of new floor and sidewalk rail for the steel through arch bridge built in 1904  |
| 1936 | Epping                            | Bridge over Lamprey River on Epping-Lee Rd.                    | 1-11-2            | Design of utility conduit to be attached to pre-existing bridge  |
| 1936 | Lyme                              | Bridge No. 052/153 (North Thetford Rd. over Connecticut River) | 1-10-2-4          | Riveted Warren through truss to replace span lost in 1936 flood (eastern span of two-span bridge; western span survived the flood) |
| 1936 | West Peterborough                 | NH 101 over Nubanusit River                                    | 1-13-3-2          | Reinforced-concrete rigid frame bridge. Drawings by R. J. Prowse. Design by RDF & AMW  |
| 1936 | Westmoreland *<br>See p.A-19 & 20 | Bridge No. 089/100 (County Farm Rd. over Partridge Brook)      | 1-12-3-5          | Six-span composite timber-concrete slab bridge of 144 ft.  |
| 1937 | Ashland *<br>See p.A-21           | Bridge No. 076/080 (US 3 over Pemigewasset River)              | 1-17-1-1          | Riveted, Warren deck trusses of 240 ft. and 250 ft. Steel stringer approach spans. Designed with JHW. Rehabilitated in 1985        |
| 1937 | Chesterfield                      | Town Road 9 over Catsbane Brook                                | 1-16-3-5          | Three-span, continuous steel stringer bridge of 80 ft. 18-in.-deep, wide-flange beams with riveted splices                         |
| 1937 | East Kingston                     | East Kingston to South Hampton Rd over B&M RR                  | 1-15-3-3          | Three-span, 120-ft.-long steel stringer bridge. Steel bent substructure  |
| 1937 | Henniker                          | Franklin Pierce Hwy over Amey Brook                            | 1-15-1-4          | Details of railings and curb by R. J. Prowse   |

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| Date | Town                     | Bridge/Structure   | NHDOT Plan Number | Notes   |
|------|--------------------------|--|-------------------|---|
| 1937 | Lempster                 | Bridge No. 086/06B (Dartmouth College Road)                            | 1-14-2-1          | 10 ft. x 12 ft. reinforced-concrete box culvert   |
| 1938 | Charlestown              | NH 12 over B&M RR  | 2-2-2-5           | Three-span steel stringer bridge. Superstructure design by GWH. R. J. Prowse designed details of piers and pier reinforcing   |
| 1938 | Jackson                  | Bridge No. 144/056 (East Side Rd. over Ellis River)                    | 2-2-1-12          | Two-span, reinforced-concrete rigid frame bridge with stone veneer. Design of bridge by JHW. R. J. Prowse designed approach roadways, typical sections. Drawn by R. J. Prowse |
| 1938 | Jaffrey *<br>See p.A-22  | Bridge No. 155/084 (over Contoocook River in village of White's Mills) | 2-1-3-1           | Reinforced-concrete rigid frame bridge with integral spillway gate. Layout of dam spillway and approach roadways designed by R. J. Prowse                                     |
| 1938 | Lincoln                  | Bridge No. 205/196 (Lincoln Rd. over East Branch Pemigewasset River)   | 2-1-3-5           | Two-span, reinforced-concrete rigid frame bridge. Drawn by R. J. Prowse. Design by GJH  |
| 1938 | Rollinsford              | Broadway Road crossing of B&M RR                                       | 2-1-2-2           | Survey to relocate a road to eliminate a grade crossing. Plans and profiles drawn by R. J. Prowse   |
| 1939 | Gorham                   | Bridge over Moose River (1.25m NW of Gorham Village Rd.)               | 2-4-2-5           | Single-span reinforced-concrete rigid frame bridge of 75 ft. Drawn by R. J. Prowse. Design by RK & AM   |
| 1939 | Hillsboro                | Bridge No. 144/033 (Deering Rd. over Contoocook River)                 | 2-4-2-9           | Stone-faced, reinforced-concrete rigid frame extension to pre-existing stone arch bridge. Drawn, traced, and checked by R. J. Prowse. Design by JWH & HCN                     |
| 1939 | Peterboro                | US 202/NH 101 over Contoocook River.                                   | 2-5-1-1           | Stone-faced, reinforced-concrete rigid frame bridge. Drawn by R. J. Prowse. Frame footings designed by R. J. Prowse. Superstructure design by JWH                             |
| 1939 | Plaistow *<br>See p.A-23 | Bridge No. 105/030 (over B&M RR and Little River at Atkinson Depot)    | 2-3-2-1           | Multi-span steel stringer bridge with continuous main spans. Riveted haunched beams   |
| 1939 | Weare *<br>See p.A-24    | Bridge No. 097/154 (North Weare Rd. over Piscataquag                   | 2-2-3-2           | 60-ft.-long, reinforced-concrete rigid frame bridge with Moderne-style railings   |

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| Date  | Town             | Bridge/Structure  | NHDOT Plan Number | Notes  |
|-------|------------------|---|-------------------|--|
|       |                  | River)  |                   |  |
| 1940  | Boscawen         | Daniel Webster Hwy over Tannery Brook   | 2-5-1-8           | Box culvert. Borings design by R. J. Prowse  |
| 1940  | Troy             | Bridge No. 087/116 (NH 12 over South Branch Ashuelot River)                           | 2-6-2-2           | 32-ft.-long, reinforced-concrete rigid frame bridge  |
| 1940  | Troy             | Bridge No. 079/133 (NH 12 over South Branch Ashuelot River)                           | 2-6-2-4           | Repairs to stone abutments of wood-truss bridge  |
| 1940  | Troy             | Bridge No. 081/129 (NH 12 over South Branch Ashuelot River)                           | 2-6-2-3           | Four-span, reinforced-concrete rigid frame bridge of 186 ft. Design with RDF. Replaced in 1990   |
| 1940  | Winchester       | Bridge over Mirey Brook, 0.5 mile south of Winchester Village Rd.                     | 2-5-3-9           | Three-span steel stringer bridge of 74 ft. Design by H. E. Langley and R.J. Prowse. Drawn by R. J. Prowse  |
| 1941  | Franconia        | Bridge No. 134/085 (over Lafayette Brook)   | 2-5-1-4           | Five-span, reinforced-concrete rigid frame bridge. Drawn by R. J. Prowse. Design of abutment details by R. J. Prowse. Superstructure design by RDF |
| 1941? | Hampton Beach    | Plans of proposed Hampton sea wall  | 2-8-2-11          | Drawn by R. J. Prowse. Design by H. E. Langley. Approved in Oct. 1941. Project complete in 1946  |
| 1941  | Peterboro        | Bridge No. 108/116 (US 202 over Contoocook River)                                     | 2-7-2-4           | Two-span, steel stringer bridge of 170 ft. Riveted girders. Designed with RDF. Widened in 1973   |
| 1941  | Rye-New Castle   | Bridge No. 066/071 (Route 1B over Little Harbor at Wentworth-By-The-Sea)              | 2-8-2-2           | Bascule bridge with steel stringer approach spans. Designed with AMW.  |
| 1941  | Webster          | Bridge No. 099/123 (Davisville-Corser Hill Rd. over Blackwater River at Swett's Mill) | 2-7-1-6           | Single-span, reinforced-concrete rigid frame bridge  |
| 1941  |                  | State Highway Garage Plans  | V1 to V5          | Drawings of highway maintenance equipment: drag broom, sander, and shoulder hone.  |
| 1942  | Concord-Pembroke | Sheep-Davis Road over Soucook River   | 2-8-3-11          | Three-span, continuous timber truss bridge   |

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| Date | Town                   | Bridge/Structure  | NHDOT Plan Number | Notes  |
|------|------------------------|---|-------------------|--|
| 1942 | *See p.A-25 & 26       | Standard Timber Bridge                                  | 2-15-3-13         | Details of a 40-ft. timber truss bridge  |
| 1946 | Manchester             | Kelly Bridge over B&M RR and Piscataqua River           | 3-3-1-3           | Alterations to pre-existing steel girder-floorbeam bridge. Drawings by R. J. Prowse, design by H. E. Langley                       |
| 1947 | New Boston             | Bridge No. 103/103 (NH 13 over Piscataquog River)       | 2-10-3-6          | Reinforced-concrete rigid frame bridge. Drawings by R. J. Prowse. Design by H. E. Langley  |
| 1949 | Hanover                | Bridge No. 026/056 (over Connecticut River)             | 2-12-1-18         | Plans to raise pre-existing bridge using 100-ton jacks. Jacking details, masonry details, reinforcing steel design by R. J. Prowse |
| 1949 | Ossipee                | Bridge No. 152/268 (White Mt. Hwy over Lovell River)    | 2-12-2-11         | Single-span, 58-ft.-long, steel stringer bridge  |
| 1949 | Portsmouth             | Bridge No. 205/116 (Woodbury Avenue Expressway)         | 2-11-3-11         | Single-span, 76-ft.-long, reinforced-concrete rigid frame bridge   |
| 1950 | Dover                  | Dock at Hilton Park                                     | 3-3-3-10          | 37-ft.-long, timber dock with gangway. Located adjacent to the General Sullivan Bridge on US 4. Replaced in 1997.                  |
| 1950 | Ossipee                | Bridge No. 136/299 (over Bearcamp River)                | 3-2-2-3           | Renewal of reinforced-concrete deck slab of existing truss bridge  |
| 1950 | Hillsboro              | Bridge No. 11/042 (NH 9 over Beards Brook)              | 3-2-2-4           | Single-span, 72-ft.-long, steel stringer bridge  |
| 1950 | Portsmouth             | Memorial Bridge Repair (US 1 over the Piscataqua River) | 3-2-1-4           | End dam replacement  |
| 1950 | Washington             | Bridge No. 177/046 (NH 31 over Shedd Brook)             | 3-2-3-8           | Widening of a pre-existing reinforced-concrete slab bridge   |
| 1951 | Alexandria             | Bridge No. 164/118 (over Patten Brook)                  | 3-2-4-4           | Single-span, 41-ft.-long, steel stringer bridge on vertical profile  |
| 1951 | Gilford                | Bridge Nos. 3 & 4 on Belknap Road                       | 3-2-3-9           | Reinforced-concrete slab bridges of 15 ft. and 12 ft. Stone parapets   |
| 1951 | Durham *<br>See p.A-27 | Bridge No. 070/072 (over Lamprey River)                 | 3-2-3-6           | Single-span, 41-ft.-long, steel stringer bridge on pre-existing stone abutments. Welded beams                                      |

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| Date | Town                           | Bridge/Structure  | NHDOT Plan Number | Notes   |
|------|--------------------------------|---|-------------------|---|
| 1951 | Farmington                     | Bridge No. 085/132 (Tappan Street over Mad River)                   | 3-2-3-11          | Replacing deck and stringers of pre-existing steel girder-floorbeam bridge built in 1893.   |
| 1951 | Lebanon *<br>See p.A-28        | Bridge No. 049/064 (NH 12A over Bloods Brook)                       | 3-2-4-11          | Three-span, 101-ft.-long, reinforced-concrete, rigid frame bridge. Tapered legs. Nicely sited in valley on sand/gravel foundation. Ice breakers attached to legs of frame |
| 1951 | Marlboro                       | Bridge No. 090/135 (over Minnewawa Brook)                           | 3-2-4-7           | Single-span, 40-ft.-long steel stringer bridge  |
| 1951 | New Durham                     | Bridge No. 169/049 (Merrymeeting Lake Road over Merrymeeting Brook) | 3-2-3-14          | Single-span, 12-ft.-long, reinforced-concrete slab bridge on pre-existing abutment.   |
| 1951 | Ossipee                        | Bridge No. 090/268 (over Lovell River)                              | 3-2-4-10          | Single-span, 41-ft.-long, steel stringer bridge   |
| 1951 | Piermont                       | Bridge No. 066/159  | 3-2-3-7           | Single-span, 26-ft.-long, reinforced-concrete slab bridge on pre-existing stone abutment.   |
| 1951 | Richmond                       | Bridge No. 056-090 (NH 119)   | 3-2-4-1           | Single-span, 12-ft.-long, reinforced-concrete slab bridge on pre-existing stone abutments   |
| 1951 | Strafford *<br>See p.A-29 & 30 | Bridge No. 182/106 (Barnstead-Barrington Road over Mohawk River)    | 3-3-1-5           | Single-span, 19-ft.-long, reinforced-concrete rigid frame bridge  |
| 1951 | Surry                          | Bridge No. 130/057 (Town Road over Ashuelot River)                  | 3-2-15            | Single-span, 52-ft.-long, steel stringer bridge with 33-in. wide-flange beams on pre-existing stone abutments   |
| 1951 | Temple                         | Bridge No. 099/070  | 3-2-3-13          | Widening of pre-existing stone arch bridge with reinforced-concrete arch of 9 ft.   |
| 1951 | Temple                         | Bridge No. 110/054 (over Temple Brook)                              | 3-2-3-12          | Widening of pre-existing stone arch bridge with reinforced-concrete arch of 14 ft.  |
| 1951 | Windham *<br>See p.A-31        | Bridge No. 094/046 (over Golden Brook)                              | 3-3-3-7           | Single-span, 14-ft.-long, reinforced-concrete box culvert with stone parapets   |
| 1952 | Franklin                       | Bridge No. 162/099 (US 3 over B&M RR)                               | 3-3-1-11          | Single-span, 24-ft.-long, reinforced-concrete rigid frame bridge on skew. Drawn and checked by R. J. Prowse.  |

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| Date  | Town                          | Bridge/Structure   | NHDOT Plan Number | Notes  |
|-------|-------------------------------|--|-------------------|--|
| 1952  | Jackson                       | Bridge No. 198/046 (Dundee Road over Mill Brook)   | 3-3-2-11          | Single-span, 21-ft.-long, reinforced-concrete slab bridge on pre-existing stone abutments                                  |
| 1952  | Lebanon                       | Bridge No. 066/059 (over Blood Brook)  | 3-3-4-9           | Two-span, steel stringer bridge. Butt-welded splices over pier   |
| 1952  | Merrimack*<br>See p.A-32 & 33 | Bridge No. 111/115 (F. E. Everett Turnpike over Souhegan River/Merrill's Marauders Bridge) |                   | Three-span, continuous steel stringer bridge of 224 ft. Haunched, welded girders.  |
| 1952  | Milford                       | Bridge No. 052/135 (NH 101 over Souhegan River)  | 3-3-2-4           | Alterations to pre-existing stone arch bridge  |
| 1952  | Ossipee                       | Bridge No. 108/333 (NH 25 over Bearcamp Creek)   | 3-3-2-12          | Repair to portal of pre-existing truss bridge  |
| 1952? | Piermont                      |  | 3-2-4-17          | Repairs to box culvert. Undated plans  |
| 1953  | Alton                         | Bridge No. 199/273 (Town Road 2684 over Beaver Brook)                                      | 3-4-1-7           | Steel multi-plate arch of 53-ft. span  |
| 1953  | Antrim-Deering                | Bridge No. 195/146 (off US 202 over Contoocook River)                                      | 3-3-4-8           | Deck for pre-existing truss bridge   |
| 1953  | Boscawen *<br>See p.A-34      | Bridge No. 131/035 (US 322 over Contoocook River)  | 3-3-3-13          | Three-span, continuous, steel stringer bridge. Span lengths of 80 ft., 104 ft., 80 ft. Haunched welded beams               |
| 1953  | Durham                        | Bridge No. 080/070 (over Lamprey River at Packer's Falls)                                  | 3-2-1-6           | Widening of existing arch bridge with three-span reinforced-concrete rigid frame (67-ft. long)                             |
| 1953  | Hampton Falls                 | Bridge No. 187/053 (Kensington Road over Hampton Falls River)                              | 3-4-1-4           | Steel pipe culver with stone headwalls. Extension of pre-existing stone arch   |
| 1953  | Hillsboro                     | Bridge No. 072/136 (Hillsboro-East Washington Road over Stony Brook)                       | 3-4-1-6           | Single-span, 20-ft.-long, reinforced-concrete slab bridge  |
| 1953  | New Market                    | Bridge No. 127/097 (NH 108 over Lamprey River)   | 3-3-4-1           | Single-span, 60-ft.-long, steel stringer bridge. 36-in.-deep, wide-flange beams. Moderne-style railing posts and pilasters |

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| Date | Town                  | Bridge/Structure   | NHDOT Plan Number | Notes  |
|------|-----------------------|--|-------------------|--|
| 1953 | Portsmouth-New Castle | Bridge No. 241/053 (Route 1B over Piscataqua Estuary)            | 3-3-4-10          | Nine-span, 540-ft.-long, steel stringer bridge. Three-span continuous units with 36-in.-deep, wide-flange beams                |
| 1953 | Sandwich              | Bridge No. 233/072 (off of NH 25 over Bearcamp Creek)            | 3-4-1-7           | Single-span, 42-ft.-long, steel stringer bridge  |
| 1953 | Sunapee               | Bridge No. 120/164 (over brook to Sunapee Lake at George's Mill) | 3-4-1-8           | 8-ft.-diameter, structural steel plate, pipe culvert   |
| 1954 | Alexandria            | Bridge No. 153/140 (over Fowling River)                          | 3-4-1-11          | Single-span, 58-ft.-long, steel stringer bridge. Cellular concrete abutment  |
| 1954 | Barrington            | Bridge No. 109/62 (over Isinglass River)                         | 3-4-4-2           | Single-span, 62-ft.-long, steel stringer bridge. Design with Harold E. Langley   |
| 1954 | Conway                | Bridge no. 063-047 (over Branch of Saco River)                   | 3-4-4-6           | Three-span, continuous, steel stringer bridge of 109 ft. Pipe railings with stepped end posts. Butt welded splices over piers. |
| 1954 | Enfield               | Bridge No. 079/153 (over Mascoma River)                          | 3-4-1-6           | Two-span, continuous steel stringer bridge of 88-ft. Drawn and checked by R. J. Prowse. Design by H. E. Langley                |
| 1954 | Effingham-Freedom     | Bridge No. 110/190 (NH 153 over Ossipee River)                   | 3-4-4-7           | Continuous steel stringer bridge of 240 ft. Drawing by R. J. Prowse. Design by H. E. Langley                                   |
| 1954 | Jefferson             | Bridge No. 129/078 (NH 115 over Israel River)                    | 3-4-3-1           | Single-span, 56-ft.-long, steel stringer bridge. Super-elevated. 36-in.-deep, wide-flange beams                                |
| 1954 | Langdon               | Bridge No. 112/084 (Drewsville Road over Great Brook)            | 3-4-1-18          | Single-span, 44-ft.-long, structural steel plate arch  |
| 1954 | Madison               | Bridge No. 081/090   | 3-4-4-4           | Single-span, 26-ft.-long, reinforced-concrete slab. Drawing by LY  |
| 1954 | Moultonboro           | Bridge No. 221/77 (State Aid 46 over Shannon Brook)              | 3-4-1-19          | Widening of pre-existing slab bridge. Drawn and checked by R. J. Prowse. Design by H. E. Langley                               |
| 1954 | Ossipee-Tamworth      | Bridge No. 137/297 (NH 16 over Bearcamp Creek)                   | 3-4-3-2           | Five-span, steel stringer bridge of 392 ft. Drawn and checked by R. J. Prowse. Design by H. E. Langley                         |

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| Date | Town                | Bridge/Structure  | NHDOT Plan Number | Notes  |
|------|---------------------|---|-------------------|--|
| 1954 | Pembroke-Allenstown | Bridge No. 059/053 (over Suncook River)                             | 3-4-3-6           | Deck repair. Design with H. E. Langley   |
| 1954 | Pembroke-Concord    | Bridge No. 134/050 (NH 3 over Route 3)                              | 3-4-2-2           | Three-span, continuous steel stringer bridge of 152 ft. Drawn and checked by R. J. Prowse. Design by H. E. Langley |
| 1954 | Rumney              | Garage and storage building   | 3-4-3-4           | Design with H. E. Langley  |
| 1954 | Washington          | Bridge No. 198/106 (over Woodland Brook at East Washington village) | 3-4-1-21          | Single-span, 32-ft.-long, steel stringer bridge  |
| 1954 | Wilmot              | Bridge No. 142/087 (over Kimpton Brook)                             | 3-4-3-8           | Single-span, 26-ft.-long, reinforced-concrete rigid frame bridge   |
| 1954 | Stark               | Bridge No. 115/091 (off of NH 110 over Upper Amanoosuc River)       | 3-4-1-14          | New deck for pre-existing truss bridge. Drawing by R. J. Prowse  |
| 1954 | Washington          | Bridge No. 128/073 (NH 31 over outlet to Halfmoon Pond)             | 3-4-1-13          | Widening of pre-existing T beam bridge   |
| 1954 | Weare               | Bridge No. 134/129 (NH 77 over Piscataqua River)                    | 3-4-1-7           | Single-span, 57-ft.-long, steel stringer bridge. Drawn and checked by R. J. Prowse. Design by H. E. Langley        |
| 1954 | Wilmot              | Bridge No. 142/087 (over Kimpton Brook)                             | 3-4-3-8           | Single-span, 26-ft.-long, reinforced-concrete rigid frame bridge   |
| 1954 |                     | Two-hinged circular arch  | 2-15-3-1          | Study for two-hinged steel arch  |
| 1955 | Bartlett            | Bridge No. 153/108 (US 302 over Stony Brook)                        | 3-4-4-8           | Single-span, 18-ft.-long, reinforced-concrete rigid frame bridge. Drawing by NEH                                   |
| 1955 | Canaan              | Bridge No. 172/070 (Town Road over Indian River)                    | 3-5-2-5           | Single-span, 46-ft.-long, steel stringer bridge  |
| 1955 | Canterbury          | Bridge No. 175/097 (over Pickard Brook)                             | 3-4-4-12          | Single-span, 14-ft.-long, structural steel plate arch  |
| 1955 | Lancaster           | Bridge No. 222/061 (Town Road over Garland Brook)                   | 3-5-2-1           | Single-span, 35-ft.-long, reinforced-concrete rigid frame bridge. Drawing by HAS                                   |

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|------|----------------------------|--|-------------------|---|
| 1955 | Pelham                     | Bridge No. 105/069 (over Beaver Brook)               | 3-4-4-9           | Single-span, 42-ft.-long, steel stringer bridge. Drawn by R. J. Prowse. Design by H. E. Langley   |
| 1955 | Monroe                     | Bridge No. 070/075 (NH 135 over Hunt Mountain Brook) | 3-4-4-3           | Widening of pre-existing arch with reinforced-concrete slab. Drawing by JTH   |
| 1955 | Stratford                  | Bridge No. 038/190 (US 3 over Kimball Brook)         | 3-5-1-3           | Reinforced-concrete box culvert   |
| 1955 | Tamworth *<br>See p.A-35   | Bridge No. 061/091 (NH 113A over Swift River)        | 3-5-1-1           | Skewed, continuous, steel stringer bridge of 152 ft. Welded splices. Hammerhead piers   |
| 1955 | Wakefield                  | Bridge No. 104/042 (NH 16 over B&M RR)               | 3-5-2-2           | Single-span, 26-ft.-long, reinforced-concrete rigid frame bridge.   |
| 1955 | Whitefield *<br>See p.A-36 | Bridge No. 103/095 (NH 116 over Little River)        | 3-5-1-5           | Three-span, reinforced-concrete rigid frame bridge with tapered legs and haunched end spans. 206 ft. Railings replaced in 1992.           |
| 1955 | Winchester                 | Bridge No. 151/062 (over Roaring Brook)              | 3-4-4-11          | Single-span, 30-ft.-long, reinforced-concrete rigid frame bridge. Drawing by R. J. Prowse. Design by H. E. Langley                        |
| 1955 |                            | Truck Loading Study                                  | 2-14-3-9          | Study of the impact of trucks on various lengths of bridge. Design by H. E. Langley. Drawings by R. J. Prowse                             |
| 1956 | Woodstock                  | Bridge No. 103/135 (NH 112 over Lost River)          | 3-5-3-7           | Single-span, 60-ft.-long, steel stringer bridge. Drawing by JSB   |
| 1956 |                            | Sign and Signal Portal                               | 2-14-3-13         | Welded, tubular steel sign bridge. Designed with H. E. Langley  |
| 1956 |                            | Areas of Waterway                                    | 2-15-3-1          | Waterway area calculations using modified Talbot formula  |
| 1957 | Alstead                    | Bridge No. 060/159 (NH 12A over Cold River)          | 3-5-4-6           | Single-span, 64-ft.-long, reinforced-concrete rigid frame bridge  |
| 1957 | Bellows Falls-Walpole      | Bellows Falls Arch Bridge                            | 2-13-1-3          | Plans to replace hangers of 1904 steel through-arch bridge. Survey of floorbeam hanger locations, elevations, and deflection measurements |
| 1957 | Hampton                    | Hampton Harbor Bridge Repair                         | 3-1-2-2           | Detail of cofferdam for pier repair   |

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| Date | Town                                 | Bridge/Structure  | NHDOT Plan Number | Notes  |
|------|--------------------------------------|---|-------------------|--|
| 1957 | Ossipee *<br>See p.A-37              | Bridge No. 194/146 (NH 28 over B&M RR)                  | 3-6-1-6           | Three-span, continuous, reinforced-concrete slab bridge. Slight haunch to slab over piers. Design with H. E. Langley   |
| 1957 | Walpole *<br>See p.A-38              | Bridge No. 082/065 (SR 12 over Cold River)              | 3-5-4-16          | Three-span, continuous steel stringer bridge of 224 ft. Skewed. Haunched welded beams. Concrete end posts with horizontal scoring. Bridge superstructure replaced in 2003  |
| 1957 | Wentworth                            | Bridge No. 146/090 (NH 25 over Baker River)             | 3-6-1-6           | Three-span, continuous steel stringer bridge of 210 ft. Open steel grid deck for shoulders. Design with H. E. Langley  |
| 1958 | Andover                              | Bridge No. 118/095 (over B&M RR)                        | 3-6-3-2           | Three-span, continuous steel stringer bridge of 124 ft. Substructure of steel H-pile bents   |
| 1958 | Cornish                              | Bridge No. 071/139 (NH 12A over Blow-Me-Down Brook)     | 3-6-3-14          | Widening of pre-existing stone arch with reinforced-concrete rigid frame. Drawing by RAB   |
| 1958 | Exeter *<br>See p.A-39 & 40          | Bridge No. 098/101 (NH 85 over NH 101)                  | 3-6-2-10          | Single-span, 48-ft.-long, reinforced-concrete rigid frame bridge. Architectural with vertical grooving on face, horizontal scoring on abutment, and vertical scoring on end posts. Custom railings. Replaced by Bridge No. 098/100 |
| 1958 | Exeter                               | Bridge No. 102/100 (NH 101 over B&M RR)                 | 3-6-2-9           | Three-span, continuous steel stringer bridge of 117 ft.  |
| 1958 | Exeter-Stratham *<br>See p.A-41 & 42 | Bridge No. 106/100 (NH 101 over Squamscott River)       | 3-6-2-1           | Three span, continuous steel stringer bridge of 306 ft. Welded haunched beams. Lincoln Arc Welding Society award winning bridge. Replaced in 1994  |
| 1958 | Franconia *<br>See p.A-43thru45      | Old Man of the Mountains                                | 3-6-2-5           | Plans for post-tensioning rock face with steel tie rods  |
| 1958 | Geoffstown                           | Bridge No. 051/114 (over Tributary of Piscataqua River) | 3-6-1-14          | Two-span, 62-ft.-long, steel stringer bridge on pre-existing stone abutments   |
| 1958 | Northumberland                       | Bridge No. 070/033 (US 3 over Canadian National RR)     | 3-6-2-7           | 160-ft.-wide, 26-ft.-long, reinforced-concrete rigid frame bridge  |
| 1958 | Pelham                               | Bridge No. 074/141 (Tallant Road over Beaver Brook)     | 3-6-2-14          | Single-span, 53-ft.-long, steel stringer bridge on stone abutments   |

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| Date | Town                      | Bridge/Structure  | NHDOT Plan Number | Notes  |
|------|---------------------------|---|-------------------|--|
| 1958 | Sandwich                  | Bridge No. 238/092 (NH 113 over Cold River)                 | 3-6-3-13          | Skewed, two-span, continuous steel stringer bridge of 140 ft. Hammerhead piers. Butt-welded splice of 36-in.-deep, wide-flange beams over piers. Rehabilitated in 1995. Drawing by JLS |
| 1958 | Shelburne                 | Bridge No. 079/122 (North Road over Leadmine Brook)         | 3-6-3-3           | Single-span, 23-ft.-long, reinforced-concrete slab. Drawing by HAS   |
| 1958 | Stratham                  | Bridge No. 065/069 (NH 101 over NH 101/108)                 | 3-6-2-8           | Three-span, continuous steel stringer bridge of 177 ft. Welded butt splices at piers   |
| 1958 | Wakefield                 | Bridge No. 230/057 (NH 16 over Branch River)                | 3-6-2-2           | Single-span, 49-ft.-long, steel stringer bridge. 36-in.-deep, wide-flange beams  |
| 1959 | Gorham                    | Bridge No. 049/101 (US 2 over B&M RR)                       | 3-6-4-12          | Three-span, continuous steel stringer bridge of 129 ft. Vertical profile. Drawing by FRS   |
| 1959 | Hampton                   | Bridge No. 208/094 (Tide Mill Road over Tide Mill Creek)    | 3-7-1-4           | Single-span, 52-ft.-long, steel stringer bridge. 36-in.-deep, wide-flange beams  |
| 1959 | Hanover                   | Retaining walls and stairs at the Smith property            | 3-6-4-16          | Driveway access for state highway project  |
| 1959 | Hopkinton                 | Bridge No. 085/068 (Mudgett Road over Mudgett Brook)        | 3-7-1-14          | 12-ft.-long, reinforced-concrete box culvert with tidal gate   |
| 1959 | Plaistow                  | Bridge No. 123/078 (Westville Road over Little River)       | 3-6-4-18          | Widening of pre-existing arch bridge   |
| 1959 | Shelburne                 | Bridge No. 075/113 (over Androscoggin River)                | 3-6-4-9           | Widening of pre-existing steel stringer and stone arch bridge  |
| 1959 | Troy                      | Bridge No. 079/133 (NH 12 over South Branch Ashuelot River) | 3-6-4-15          | Deck repairs   |
| 1959 | Weare*<br>See p.A-46 & 47 | Bridge No. 159/178 (NH 77 Relocation over Canal No. 2)      | 3-7-2-14          | Three-span, continuous steel stringer bridge of 448 ft. Variable-depth welded beams. Stepped end posts. Pipe railings. Hammerhead piers. Design with H. E. Langley                     |
| 1960 | Acworth                   | Bridge No. 070/042 (NH 123A over Cold River)                | 3-7-3-7           | Three-span continuous steel stringer bridge of 187 ft. Design by JLS. Drawing by R. J. Prowse  |

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| Date | Town             | Bridge/Structure  | NHDOT Plan Number | Notes   |
|------|------------------|---|-------------------|---|
| 1960 | Albany           | Bridge No. 080/148 (Bear Notch Road over Swift River)           | 3-7-4-5           | Single-span, 72-ft.-long, steel stringer bridge   |
| 1960 | Benton-Haverhill | Bridge No. 058/052 (NH 25 over Oliverian Brook)                 | 3-7-4-13          | Single-span, 50-ft.-long, steel stringer bridge   |
| 1960 | Haverhill        | Bridge No. 219/178 (US 302 over Connecticut River)              | 3-7-4-10          | Repairs to railings, expansion joints, and sidewalks  |
| 1960 | Hopkinton        | Bridge No. 086/084 (US 202/ 9 over Elm Brook)                   | 3-7-2-5           | Three-span, continuous steel stringer bridge of 312 ft. Variable-depth welded beams. Stepped end posts. Pipe railings. Hammerhead piers |
| 1960 | Hopkinton        | Bridge No. 049/096 (US 202/ 9 over Contoocook River)            | 3-7-3-4           | Three-span, continuous steel stringer bridge of 312 ft. Variable-depth welded beams. Stepped end posts. Pipe railings. Hammerhead piers |
| 1960 | Hopkinton        | Bridge No. 089/114 (over Hopkinton-Everett Reservoir)           | 3-7-3-8           | Three-span, continuous steel stringer bridge of 276 ft. Variable-depth welded beams with curved profile. Design with H. E. Langley      |
| 1960 | Hopkinton        | Bridge No. 056/093 (US 202/ 9 over Hatfield Road)               | 3-7-4-6           | Three-span, continuous steel stringer bridge of 104 ft.   |
| 1960 | Keene            | Bridge No. 132/060 (Route 9 Relocation over Ashuelot River)     | 3-8-1-3           | Two-span, continuous steel stringer bridge of 120 ft.   |
| 1960 | Pittsburg        | Bridge No. 196/130 (US 3 over Connecticut River)                | 3-8-1-5           | Single-span, 24-ft.-long, reinforced-concrete rigid frame bridge. Drawing by RAB  |
| 1960 | Pittsburg        | Bridge No. 197/120 (US 3 over West Inlet)                       | 3-8-1-6           | Single-span, 17-ft.-long, steel pipe arch with stone headwalls. Drawing by HAS  |
| 1960 | Portsmouth       | Bridge No. 247/084 (US 1 over Piscataqua River/Memorial Bridge) | 3-7-3-5           | Replacing flooring system   |
| 1961 | Alstead          | Bridge No. 077/047 (NH 12A over Thompson Brook)                 | 3-8-2-14          | Single-span, 17-ft.-long, reinforced-concrete rigid frame bridge  |

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| Date | Town                        | Bridge/Structure  | NHDOT Plan Number | Notes  |
|------|-----------------------------|---|-------------------|--|
| 1961 | Fracestown                  | Bridge No. 142/060 (Second NH Turnpike over South Branch Piscataqua River)          | 3-8-3-11          | Single-span, 50-ft.-long, steel stringer bridge  |
| 1961 | Harts Location              | Bridge no. 055/091 (US 302 over Saco River)   | 3-8-2-5           | Widening of pre-existing culvert/inlet pipe  |
| 1961 | Haverhill                   | Bridge No. 139/133 (over Clark Brook)   | 3-8-2-3           | Single-span, 42-ft.-long, steel stringer bridge  |
| 1961 | Henniker                    | Bridge No. 125/125 (US 202 / 9 over Warner Road)                                    | 3-7-4-7           | Three-span, continuous steel stringer bridge of 104 ft.  |
| 1961 | Londonderry *<br>See p.A-48 | Bridge No. 140/120 (Ash Street over Interstate 93/Robert J. Prowse Memorial Bridge) | 3-15-2-1          | Three-span, welded, rigid frame bridge of 216 ft. Design concept by R. J. Prowse. Final plans by The Clarkson Engineering Co. AISC award winning bridge of 1964. |
| 1961 | Marlboro                    | Bridge No. 077/065 (NH 12 over South Branch Ashuelot River)                         | 3-7-1-14          | Single-span steel stringer bridge of 62 ft.  |
| 1961 | Marlboro                    | Bridge No. 072/075 (NH 12 over South Branch Ashuelot River)                         | 3-7-1-15          | Single-span steel stringer bridge of 62 ft.  |
| 1961 | Marlboro                    | Bridge No. 066/080 (NH 12 over South Branch Ashuelot River)                         | 3-7-1-16          | Single-span steel stringer bridge of 62 ft.  |
| 1961 | New Durham                  | Bridge No. 204/056 (NH 11 over Merrymeeting River)                                  | 3-8-3-4           | Reinforced-concrete box culvert. Drawing by RAB  |
| 1961 | Newbury                     | Bridge No. 132/074 (NH 103 over Andrews Brook)                                      | 3-8-2-7           | Single-span, 24-ft.-long, reinforced-concrete rigid frame bridge   |
| 1961 | Somersworth-Berwick         | Bridge No. 101/114 (NH 9 over Salmon Falls River)                                   | 3-8-4-3           | Singles-span, 120-ft.-long, steel stringer bridge. 6-ft.-deep welded girders   |
| 1961 |                             | Expansion joint details   | 2-15-3-1          | Study of expansion details for bridges of less than 60 ft.   |
| 1962 | Concord *<br>See p.A-49     | Bridge No. 160/178 (NH 106 over US 202/ 4/ 9)                                       | 3-9-1-8           | Three-span, continuous steel stringer bridge of 132 ft. Welded, arched girders. Welded web splice  |
| 1962 | Rye-New Castle              | Route 1B over Little Harbor   | 3-8-4-7           | Replacing operating machinery and operators' house for pre-existing bascule bridge   |

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| Date | Town                               | Bridge/Structure                                      | NHDOT Plan Number | Notes   |
|------|------------------------------------|---|-------------------|---|
| 1962 |                                    | Loading Charts  | 2-15-3-1          | Truck loading charts for simple-span, reinforced-concrete slab bridges  |
| 1966 | Plymouth *<br>See p.A-50           | Bridge No. 117/143 (Route 3A/25 over Baker River)     | 3-11-2-3          | Three-span, continuous, steel stringer bridge of 252 ft. Haunched, variable depth, welded beams   |
| 1967 | Claremont-Ascutney *<br>See p.A-51 | Bridge No. 065/134 (NH 12/103 over Connecticut River) | 3-11-2-4          | Four-span, continuous, steel stringer bridge of 672 ft. Variable-depth, welded beams. High-strength bolt field splices. Design with TS. Drawn by TS |