

General Construction Requirements:

- Contractor is responsible for all work shown on the drawings, unless otherwise noted. Provide and install all materials required to complete project.
- All work shall conform to the latest edition of the NHDOT Standard Specifications for Road & Bridge Construction, and shall comply with requirements of the District Engineer.
- Perform all work in compliance with federal, state, and local permit approvals. Copies of all permit approvals shall be maintained at the project site.
- Site security and job safety are the sole responsibility of the Contractor. All construction activities shall comply with OSHA standards and local requirements.
- The location of existing utilities are approximate and have not been independently verified. Contact "Dig Safe" 72 hours prior to any excavation at 1-888-344-7233 and any other utility owners for accurate utility marking. Pay for all damages which may occur by the failure to locate and preserve any utilities.
- At least one week prior to site clearing/demolition, request Owner's Representative to identify features to remain.
- Field-verify the location, size, inverts and types of existing pipes at all proposed points of connection prior to ordering materials. Where an existing utility is found to be in conflict with the proposed work, the location, elevation and size of the utility shall be accurately determined without delay, and the information furnished in writing to the Owner's Representative for resolution of the conflict.
- Rim elevations of proposed drainage structures are approximate in paved areas. Final elevations are to be set flush and consistent with the grading plan. Adjust all other rim elevations to finished grade within the limit of work.
- All traffic control, site signage and pavement markings shall conform to the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD) and N.H. Department of Transportation Standards.
- Provide traffic control and flaggers (if required) complying with the State Department of Transportation requirements.
- Contractor shall contact NHDOT District 1 two weeks prior to commencing work in or near the intersection of US Route 2 and Randolph Hill Road. Contractor shall provide a traffic control plan to the Town and NHDOT for review. Construction equipment and material shall be out of the US Route 2 clear zone during non-working hours.
- Contractor shall review the condition of the US Route 2 drainage elements with NHDOT District 1 prior to construction. Contractor shall fix any damage during construction to NHDOT drainage elements to the satisfaction of the NHDOT District 1 Engineer at the Contractor's expense.
- Contractor shall remove and replace or repair all curbs, sidewalk, pavement and other items damaged by construction activities to (at a minimum) their original condition, to the satisfaction of the Owner and Engineer.
- Contractor shall remove and dispose of all debris and excess excavated material from within the construction limit of work, to a suitable site provided by the Contractor, in compliance with all state and local regulations. Any excess suitable material may remain on site at the request of the Town.
- When power or telephone pole support is required, the Contractor shall provide a minimum 48-hour notification to Public Service of New Hampshire or Fairpoint Communications, respectively.
- Open trenches in the roadway must be backfilled at the end of the workday. Open trenches outside of the roadway may be left open if the Contractor provides adequately safe barricades and lights.
- All existing sewer, storm drain lines, culverts, gas and water lines encountered during construction are to remain in service, valves noted otherwise in drawings. Any lines damaged during construction shall be repaired by the Contractor at no additional cost to the Owner, except when in direct conflict with the new service or when not shown or indicated. NHDOT culverts damaged during construction shall be replaced from the damage area to the outlet.
- All structures and pipelines located adjacent to the trench excavation shall be protected and firmly supported by the contractor until the trench is backfilled. Injury to such structures caused by, or resulting from, the Contractor's operations shall be repaired at the Contractor's expense. All utilities requiring repair, relocation or adjustment as a result of the project shall be coordinated through the respective utility.
- Severing existing utilities for abandonment or removal of a segment from service shall be performed in such a manner as to allow the remaining active segment to continue in its intended service. Cap active segments with appropriate fittings, joint restraint, etc., to ensure their integrity. Plug ends of abandoned pipe segments with concrete, unless special circumstances dictate plugging abandoned pipes with blind flanges, restrained mechanical joint plugs, etc. as appropriate.
- All disturbed areas, which are not covered by structures or paving, shall be properly seeded or replanted by the contractor.
- Vehicle access to driveways shall be maintained during construction.
- The Contractor shall provide a construction schedule to the Owner and NHDOT prior to commencing work and shall update the schedule as necessary.

As-Built Measurements and Record Drawings:

- Record as-built dimensions on a daily basis and review with the Owner's Representative on a weekly basis. Submit complete record information on a clean set of drawings to Owner's Representative(s) upon substantial completion of work.
- As-built dimensions shall include locations of all surface features and subsurface utility systems including, but not limited to:
 - Location, size, depths, rims, angle points, and invert elevations of buried pipes, utilities, vaults, etc.
 - Field changes of dimension and detail.
 - Details not on original drawings.

Approvals Received:

NHDES Wetlands Permit: #2011-00402
NHDES Alteration of Terrain Permit: #AoT-0227

Construction Sequence:

In addition to complying with the "General Erosion-Control Requirements", the construction sequence is based on construction beginning in the Spring 2011 and completed in the Fall of 2011. Should the construction take longer than anticipated, the contractor shall stabilize the site in accordance with the Winter Construction Standards, and the Owner's Representative shall be contacted to determine if additional measures are needed.

Spring/Fall 2011:

- Install temporary erosion control measures.
- Cut trees and remove stumps.
- Install underdrains where identified.
- Remove existing and install new roadway and driveway culverts.
- Install new drainage controls where identified.
- Reclaim roadway to a depth of 12".
- Compact reclaimed roadway base for temporary stabilization.
- Remove reclaimed base while maintaining one-way traffic.
- Scarify subgrade to remove cobbles within 2' of subgrade surface.
- Shape subgrade to promote positive drainage.
- Proof roll & compact subgrade.
- Construct ditches and associated drainage measures.
- Install erosion control measures to stabilize ditches and slopes.
- Reinstall and compact reclaimed base material over completed subgrade.
- Install 6" (min.) of crushed gravel over reclaimed base material.
- Fine grade base gravels and complete installation of bituminous pavement binder course.
- Loam, seed and mulch all disturbed areas. Install erosion control measures as indicated.
- Complete the bituminous pavement wearing course once all phases have been completed.
- Install shoulder gravels along pavement shoulders.
- After vegetation is sufficiently established in the opinion of the owners representative, remove the temporary erosion control measures.
- Site must be Stabilized prior to October 2011.

Winter Construction Standards:

- All proposed vegetated areas which do not exhibit a minimum of 85% vegetative growth by October 15th 2011, or which are disturbed after October 15th 2011, shall be stabilized by seeding and installing erosion control blankets on slopes greater than 3:1, and seeding and placing 3 to 4 tons of mulch per acre, secured with anchored netting, elsewhere. The installation of erosion control blankets or mulch and netting shall not occur over accumulated snow or on frozen ground and shall be completed in advance of thaw or spring melts.
- All ditches or swales which do not exhibit 85% vegetative growth by October 15th, or which are disturbed after October 15th, shall be stabilized temporarily with stone or erosion control blankets appropriate for the design flow conditions.
- After November 15th, incomplete road or parking surfaces, where work has stopped for the winter season, shall be protected with a minimum of 3 inches of crushed gravel per NHDOT Item 304.3.
- Contractor shall coordinate with NHDOT District 1 for winter shut downs and cold weather paving limitations on the US Route 2 approach.

Legend

	Major Contour		100
	Minor Contour		98
	Vegetation Line		
	Stump		
	Water shut-off		
	Iron pipe/rebar found		
	Boulder		
	Mailbox		
	Stone wall		
	Earth Berm		
	Silt Fence		
	Edge of Pavement		
	Edge of Gravel		
	Utility Pole/Light		
	Manhole		
	Stormwater Drain/Catch Basin		
	Sewerline/Access Hole		
	Waterline/Shut-off Valve		
	Underdrain		
	Spot Shot		
	Delineated Wetland		
	Overhead Utility Wires/Pole		
	Sloped Granite Curb		
	Signs		
	Erosion Control Matting		
	Stone Lined Ditch		
	Boring		
	Ledge probe		
	Cores		
	Temporary Stone Check Dam		
	Drainage Easement		
	Temporary Driveway Agreement		
	Slope Easement		

Summary Of Quantities:

NHDOT Item #	Description	Unit	Quantity
Demolition / Earthwork			
201.1	Clearing and grubbing (F)	AC	2
202.31	Fill Abandoned Pipe	CY	10
202.41	Removal of existing pipe 0-24" diameter	LF	1,100
202.5	Removal of catchbasins, drop inlets, and manholes	EA	3
203.1	Common excavation	CY	3,075
203.2	Rock excavation/ ledge removal	CY	100
	Rock rake subgrade	SY	22,300
203.6	Embankment-in-place	CY	500
209.4	Granular backfill (gravel)	CY	600
214	Fine grading	SY	22,300
Base Courses			
304.3	Crushed gravel (F)	CY	6,450
304.33	Crushed Aggregate for Shoulders (F)	Ton	300
304.4	Crushed Stone	CY	300
306.21	Relaimed Stabilized Base Removed & Rehandled, 12" Deep (F)	SY	19,800
Pavements			
403.11	Hot bituminous pavement, machine method	Ton	3,875
Structures			
	Concrete Inlet headwall (class A concrete)	LS	1
	Concrete Outlet Headwall	LS	1
572.2	Stone wall relocation	LF	300
583.3	Rip rap stone (class c)	CY	700
Incidental Construction			
593.121	Geotextile	SY	3,000
603.33	HDPE end sections	EA	29
603.83208	Storm drain 8" HDPE pipe	LF	35
603.83212	Storm drain 12" HDPE pipe	LF	90
603.83215	Storm drain 15" HDPE pipe	LF	320
603.83218	Storm drain 18" HDPE pipe	LF	220
603.83224	Storm drain 24" HDPE pipe	LF	410
603.83213	Storm drain 30"HDPE pipe	LF	440
603.83236	Storm drain 36" HDPE pipe	LF	120
604.124	Catch basin 4' diameter	EA	14
604.194	Inlet structure	EA	16
605.512	Perf. storm drain 12" HDPE pipe	LF	1,350
605.518	Perf. storm drain 18" HDPE pipe	LF	200
605.524	Perf. storm drain 24" HDPE pipe	LF	320
605.506	6" Perforated HDPE underdrain	LF	5,225
605.79	Underdrain flushing basins	EA	15
607.06	Mailbox relocation	EA	26
609.21	Straight granite slope curb	LF	3,400
615.034	Relocate sign	EA	7
619.1	Maintenance of traffic	LS	1
628.2	Sawed bituminous pavement	LF	325
641	Loam	CY	2,250
645.2	Erosion control matting	SY	5,800
645.531	Silt fence	LF	2,500
	Relocate Guy Wires	EA	2
	Temporary stone check dams	EA	65
645.7	SWPPP	LS	1
646.31	Turf Establishment with mulch	SY	20,250
692	Mobilization/Demobilization	Unit	1
698.14	Field Office Type D	Month	5
ADDITIVE ALTERNATE #1			
Install two catch basins for winter drainage near Boothman Lane intersection			
ADDITIVE ALTERNATE #2			
Install two catch basins and associated piping for winter drainage near Sta. 70+00			
Summary Of Quantities (continued)			
NHDOT Item #	Description	Unit	Quantity
Incidental Construction			
604.124	Catch basin 4' diameter	EA	2
ADDITIVE ALTERNATE #1 Total			
ADDITIVE ALTERNATE #2			
Install two catch basins and associated piping for winter drainage near Sta. 70+00			
Summary Of Quantities (continued)			
NHDOT Item #	Description	Unit	Quantity
Incidental Construction			
603.83212	Storm drain 12" HDPE pipe	LF	30
604.124	Catch basin 4' diameter	EA	2

NOT FOR CONSTRUCTION ISSUED FOR REGULATORY AGENCY REVIEW ONLY

COPYRIGHT		2011	H.E. BERGERON ENGINEERS, INC.	
NO.	REVISION	DATE	BY	
1	REVISED PER NHDOT COMMENTS	03/08/2011	EJG	



HEB
H.E. BERGERON ENGINEERS, INC.
P.O. BOX 440
NORTH CONWAY, NH 03860 · (603) 356-6936

SURVEYED BY	KLT/JLT
DESIGNED BY	DBH
DRAWN BY	DBH
CHECKED BY	JJP
FIELD BOOK	339
SCALE	NTS
DATE	12/21/2010

General Notes, Quantities & Legend
for the
Randolph Hill Road Reconstruction
located in and prepared for the
Town of Randolph, New Hampshire

P:\users\j020104827\Town of Randolph - Randolph Hill Road\Design\Development\Sheet Files\CO.02 General Notes.dwg, CO.02_3/15/2011 10:35:17 AM, egrner