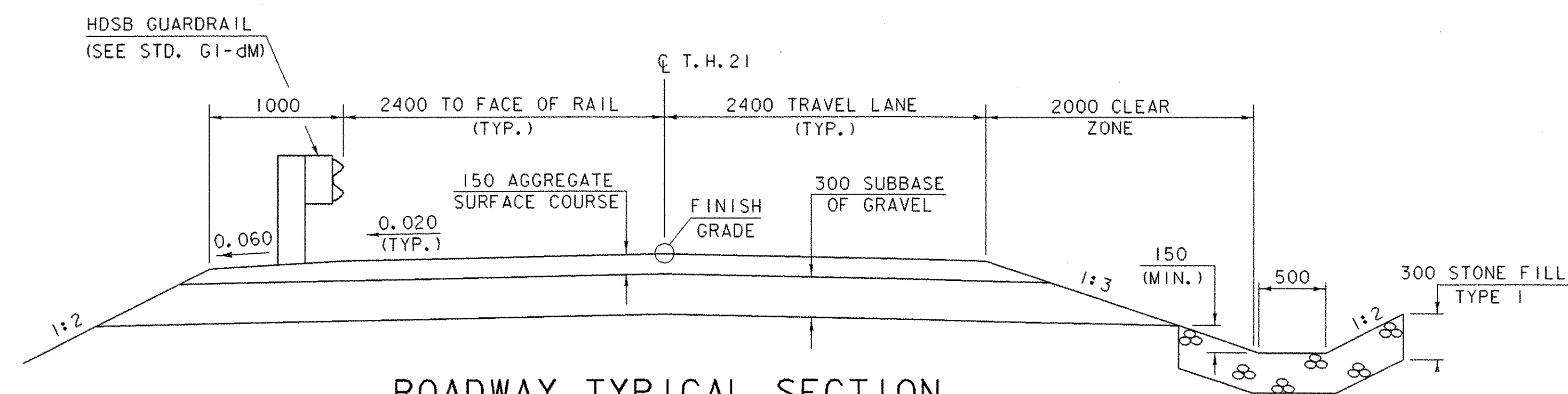
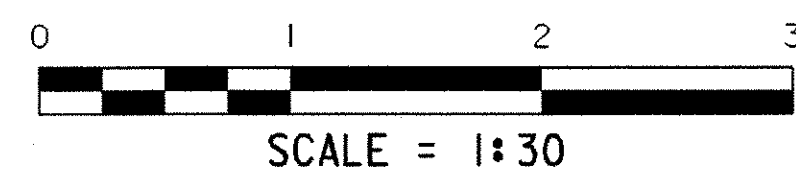
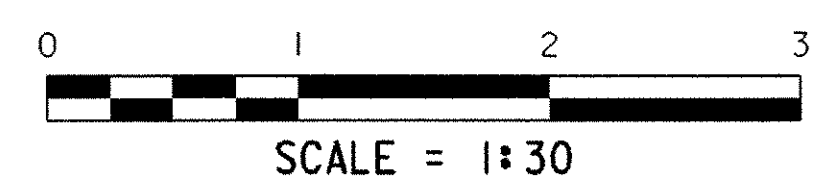


BRIDGE TYPICAL SECTION

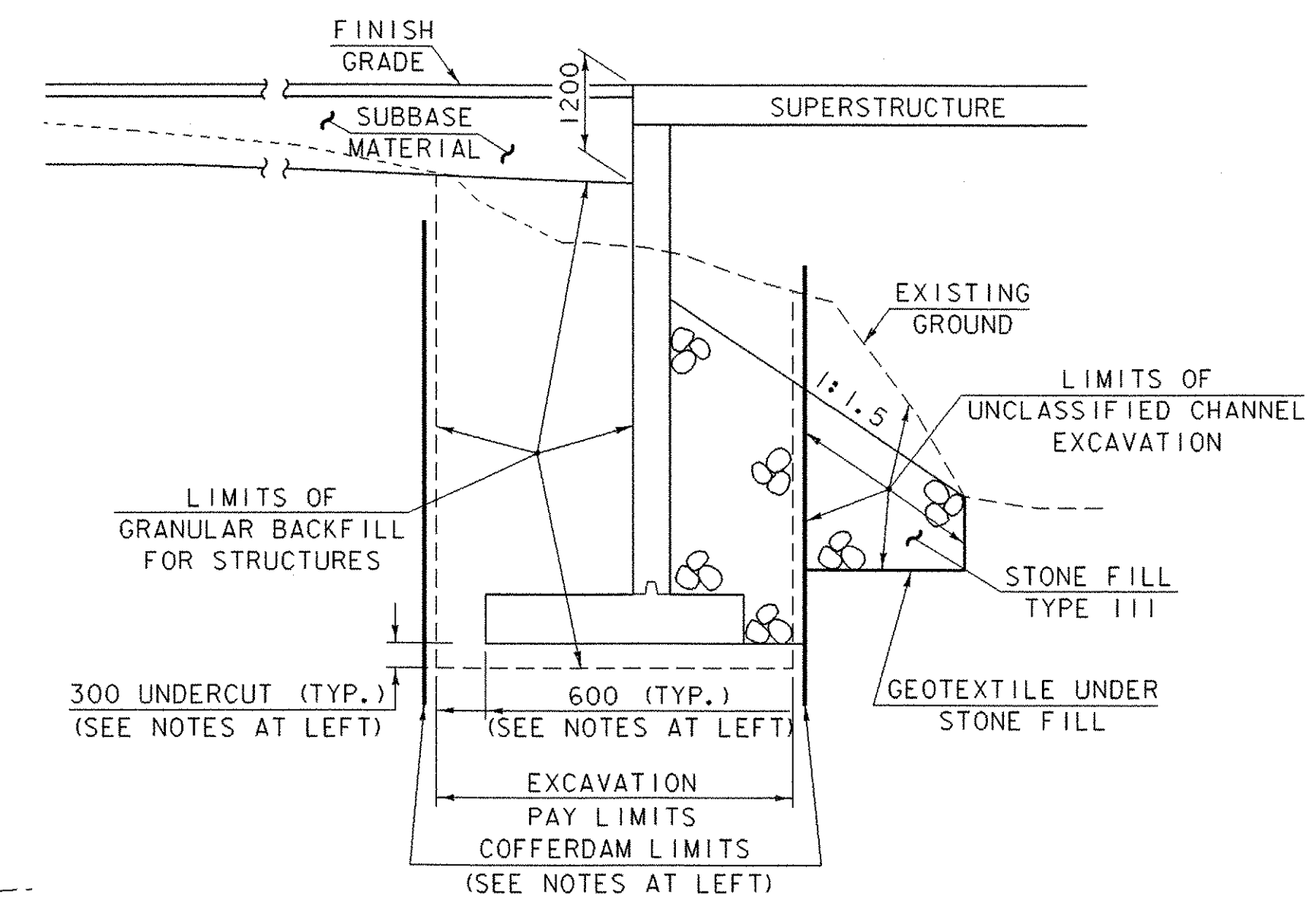


ROADWAY TYPICAL SECTION

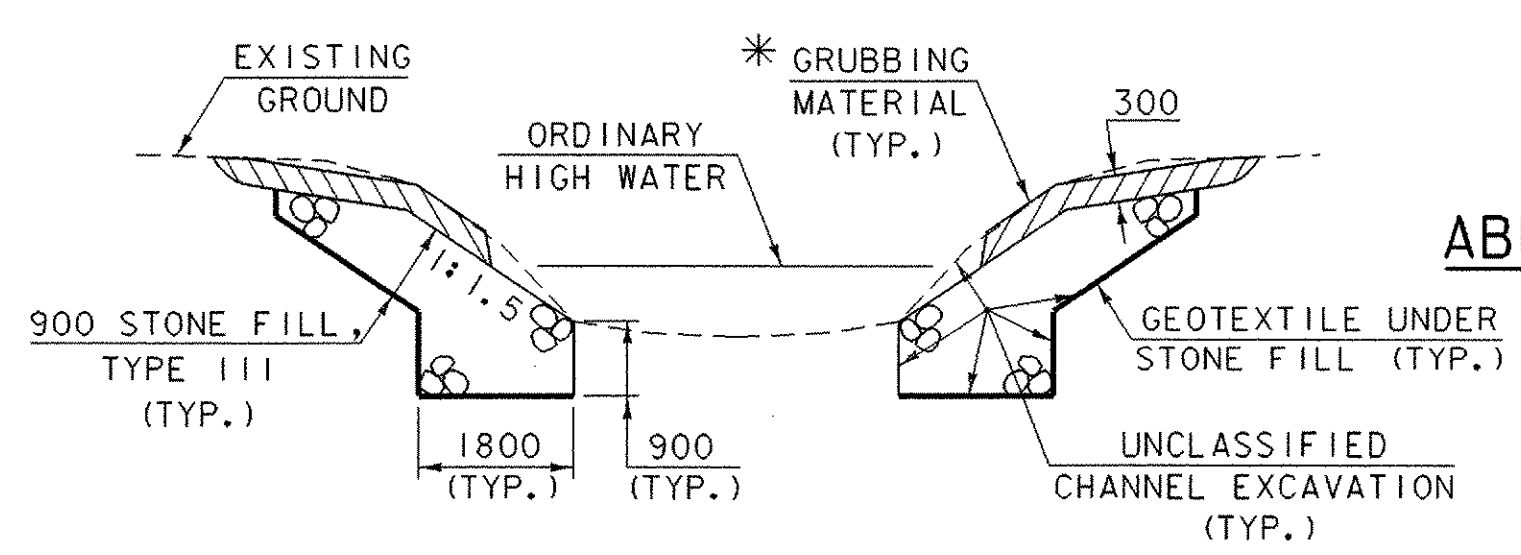


NOTES

1. COFFERDAM SIZE TO BE DETERMINED BY THE CONTRACTOR.
2. THE PAY LIMITS OF "COFFERDAM EXCAVATION, EARTH" AND "COFFERDAM EXCAVATION, ROCK" SHALL BE 600 OUTSIDE THE PERIMETER OF THE FOOTING, UP TO EXISTING GROUND OR BOTTOM OF SUBBASE, WHICHEVER IS LOWER, AND DOWN TO THE ELEVATION SHOWN ON THIS SHEET AS DETERMINED BY THE RESIDENT ENGINEER.
3. 300 UNDERCUT AS DETERMINED NECESSARY BY THE RESIDENT ENGINEER.
4. IF A COFFERDAM IS CONSTRUCTED WHICH IS LARGER THAN THE INDICATED COFFERDAM EXCAVATION PAY LIMITS, PAYMENT FOR ALL UNCLASSIFIED CHANNEL EXCAVATION, INCLUDING THAT PORTION WHICH IS INSIDE THE COFFERDAM BUT OUTSIDE THE COFFERDAM EXCAVATION PAY LIMITS, SHALL BE MADE AT THE CONTRACT UNIT PRICE FOR UNCLASSIFIED CHANNEL EXCAVATION.
5. SEE PROJECT NOTES (SHEET 15) FOR ADDITIONAL INFORMATION.



ABUTMENT EARTHWORK TYPICAL SECTION (NOT TO SCALE)



CHANNEL TYPICAL SECTION (NOT TO SCALE)

* GRUBBING MATERIAL SHALL NOT BE PLACED ON THE STONE FILL IN THE AREA UNDER THE BRIDGE. WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.

MATERIAL ITEM	TOLERANCE
AGGREGATE SURFACE COURSE	± 10 mm
SUBBASE	± 30 mm

HYDROLOGIC DATA

DRAINAGE AREA: 15.9 sq. km
 CHARACTER OF TERRAIN: Hilly to mountainous, mostly forested
 CHARACTER & TYPE OF STREAM: Perennial but flashy, straight, & stable. Not braided or anabranching.
 NATURE OF STREAMBED: Gravel, cobbles, and boulders
 02.33= 11 cms
 010= 25 cms
 025= 34 cms
 050= 42 cms
 0100= 51 cms
 0500= 87 cms
 DATE OF FLOOD OF RECORD: Unknown
 WATER SURFACE ELEV.: Unknown ESTIMATED DISCHARGE: Unknown
 NATURAL STREAM VELOCITY @ 025 = 2.9 mps
 ICE CONDITIONS: Moderate DEBRIS: Moderate
 DOES THE STREAM REACH MAXIMUM HIGHWATER ELEVATION RAPIDLY? Yes
 IS ORDINARY RISE RAPID? Yes
 IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? No
 IF YES, DESCRIBE.
 WATERSHED STORAGE: 1% HEADWATERS UNIFORM THROUGHOUT WATERSHED IMMEDIATELY ABOVE SITE

PROPOSED STRUCTURE

STRUCTURE TYPE: Single span concrete slab bridge, upstream of existing
 CLEAR SPAN (NORMAL TO STREAM): 8.0 m
 VERTICAL CLEARANCE ABOVE STREAMBED: 2.2 m
 WATERWAY OF FULL OPENING: 17.0 sq. m
 WATER SURFACE ELEV. @ 02.33= 251.7* VELOCITY= 2.4 mps
 010= 252.1* " = 2.9 mps
 025= 252.3* " = 3.1 mps
 050= 252.6* " = 3.1 mps
 0100= 253.1* " = 3.2 mps
 IS THE ROADWAY OVERTOPPED BELOW THE 0100? Yes FREQUENCY: 050
 RELIEF ELEVATION: 252.7 DISCHARGE OVER ROAD @ 0100: 9 cms
 AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: 252.7
 VERTICAL CLEARANCE @ 0.25 = 0.4 m
 SCOUR: 0.6 m of contraction scour at 0100 & 0.9 m at 0500
 REQUIRED CHANNEL PROTECTION: Stone Fill, Type III

EXISTING STRUCTURE

STRUCTURE TYPE: Single span steel beam bridge YEAR BUILT: 1950
 CLEAR SPAN (NORMAL TO STREAM): 7.0 m
 VERTICAL CLEARANCE ABOVE STREAMBED: 2.2 m
 WATERWAY OF FULL OPENING: 16 sq. m
 DISPOSITION OF STRUCTURE: Remove
 TYPE OF MATERIAL UNDER SUBSTRUCTURE: Unknown
 WATER SURFACE ELEV. @ 02.33= 251.4 VELOCITY= 2.5 mps
 010= 252.0 " = 3.3 mps
 025= 252.3 " = 3.6 mps
 050= 252.6 " = 3.1 mps
 0100= 252.9 " = 3.0 mps
 LONG TERM STREAM BED CHANGES: None noted.
 IS THE ROADWAY OVERTOPPED BELOW THE 0100? Yes FREQUENCY: 025
 RELIEF ELEVATION: 252.3 DISCHARGE OVER ROAD @ 0100: 12 cms
 UPSTREAM STRUCTURE: TOWN: Huntington DISTANCE: 900 m
 HIGHWAY NO.: T.H. 22 STRUCTURE NO.: 32
 STRUCTURE TYPE: Single span steel beam bridge
 CLEAR SPAN: 10.7 m CLEAR HEIGHT: 3.0 m
 YEAR BUILT: 1925 FULL WATERWAY: 30 sq. m
 DOWNSTREAM STRUCTURE: TOWN: Huntington DISTANCE: 75 m
 HIGHWAY NO.: T.H. 22 STRUCTURE NO.: 33
 STRUCTURE TYPE: Single span concrete slab bridge
 CLEAR SPAN: 9.1 m CLEAR HEIGHT: 2.4 m
 YEAR BUILT: 1992 FULL WATERWAY: 20 sq. m

PERMIT INFORMATION

AVERAGE DAILY FLOW: 0.3 cms
 ORDINARY LOW WATER: 0.2 cms DEPTH: 0.1 m
 ORDINARY HIGH WATER: 5.0 cms DEPTH: 0.7 m

ADDITIONAL COMMENTS

* The new bridge is about 10 m upstream of the existing bridge. Therefore, water surface elevations are given for a point further upstream, and thus may be higher even though the new bridge is longer.

DESIGN CRITERIA:

1. DESIGN LIVE LOAD AASHTO MS 22.5
2. DESIGN SPAN 9.134 M
3. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL 325 KPa ON LEDGE N/A
4. ALLOWABLE LOAD FOR PILING N/A TYPE N/A ESTIMATED LENGTH N/A
5. STRUCTURAL STEEL AASHTO GRADE N/A
6. REINFORCING STEEL GRADE 420
7. CONCRETE, HIGH PERFORMANCE CLASS B f'c: 25 MPa

TRAFFIC MAINTENANCE:

1. IS TRAFFIC TO BE MAINTAINED? YES IF YES, ON EXISTING STRUCTURE YES OR ON TEMPORARY BRIDGE NO
2. TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY N/A TRAFFIC CONTROL SIGNALS REQUIRED N/A
 MINIMUM CLEAR SPAN (NORMAL TO STREAM): N/A VERTICAL CLEARANCE ABOVE STREAMBED: N/A
 WATERWAY OF FULL OPENING: N/A
 ARE SIDEWALKS REQUIRED? N/A IF SO, ON WHAT SIDE? N/A
 STRUCTURE TYPE: Traffic will be maintained on existing bridge.

LOAD RATING (TONS)

LOADING LEVELS (LOAD FACTOR)	TRUCK						
	M	MS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY A = 2.17	27	44					
POSTED A = 1.55	38	62	78		46	47	94
OPERATING A = 1.30		74	94	85	55	56	

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of HUNTINGTON Bridge No. 34
 Highway No. T.H. 21 Log Sta.
T.H. 21 OVER BRUSH BROOK Surv. Sta.
PRELIMINARY INFORMATION SHEET
 Designed By RRW / JEL Drawn By JBA / BMM
 Checked By M. LOZIER Date 5/03 Project Manager R.R. WHITCOMB Date 6/03
 PROJECT HUNTINGTON PROJECT NO. BRO 1445 (21)
 I.G.C. Info. 93J029Structures\J029pl.dgn sJ029plJ
 Bridge Sheet No. Sheet 2 of 34

TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT
1998	20	5	50	< 1	--
2018	30	10	50	< 1	--

Design speed: 30km/h