



ITEM NO.	
207.3	U
209.201	G
403.911	Н
502.0	R
503.201	С
504.1	С
508.	S
520.0102	С
520.0302	С
520.12	С
520.213	С
528.3121	Ρ
534.3	W
538.2	В
538.6	В
541.4	Ρ
544.	R
544.2	R
548.11	E
559.41	Ν
559.5	S
563.22	В
565.22	В
585.21	S
593.311	G
593.411	G
645.22	S
646.41	T
	-

1	•	DRA

- AINAGE AREA: 11.7 SQ. MI. 2. DESIGN FLOOD: Q_{100} = 1650 cfs 3. DESIGN FLOOD ELEVATION: 669.4 FEET 4. DESIGN VELOCITY: 11.0 fps 5. BRIDGE FULL WATERWAY OPENING 1 TO BROOK: 220 SQ. FT.

$Q_{100} EL \cdot = 0$	<u>59.4</u>
EL. 664	
	8

				S DEPARTMENT OI	TATI F tran	E OF NEV sportatio	V HA N * BU	MPSHI reau of	RE BRIDGE J	DESIGN	
			TOWN	XX]	BRIDGE N	O. XXX\X	XX STAT	E PROJECT	XX
			LOCATI	ION XX							
		PRELIMINARY PLANS	Р	RELIMINARY	GEN	ERAL PI	ANA	AND E	LEVAT	TION	BRIDGE SHEET
		SUBJECT TO CHANGE		REVISIONS AFTER PROPOSAL			BY	DATE		BY DATE	1 OF
						DESIGNED	SDF	9/06 CH	HECKED	XXX XX/XX	FILE NUMBER
		DATE <u>25-0CT-06</u>				DRAWN	SMG	9/06 CH	HECKED	SDF 10/06	XX_X_X
	L					QUANTITIES	XXX	XX/XX CH	IECKED	XXX XX/XX	$\Lambda \Lambda$ - Λ - Λ
SUBDIRECTORY	.DGN LO	OCATOR SHEET SCALE				ISSUE DATE		FEDERAL PRO	JECT NO.	SHEET NO.	TOTAL SHEETS
BRD/PRELPLNS	14541J	JPreGen AS NOTED				REV. DATE				XX	XX

<u>GENERAL NOTES</u>

- 1. DESIGN METHOD: LOAD AND RESISTANCE FACTORED DESIGN.
- 2. DESIGN LOADING: HL-93
- 3. SPECIFICATIONS: AASHTO 2004 LRFD BRIDGE DESIGN SPECIFICATION WITH 2005 AND 2006 INTERIMS. NHDOT 2006 STANDARD SPECIFICATIONS AS AMENDED.
- 4. FOUNDATION DATA: ABUTMENT A AND B SPREAD FOOTING SUPPORTED ON STRUCTURAL FILL. ULTIMATE BEARING CAPACITY = 6.2 TSF
- 5. REINFORCING STEEL: AASHTO M31 (ASTM A615) GRADE 60
- 6. CONCRETE: ABUTMENTS, WINGS, AND FOOTINGS: f'c = 3 ksi BRIDGE DECK OVERLAY AND APPROACH SLABS: f'c = 4 ksi PRESTRESSED VOIDED SLABS: f'c = 6 ksi, f'ci = 4.8 ksi
- 7. SEISMIC ZONE 1, A = 0.09

	SUMMARY OF PRELIMINARY BRIDGE QUANTITI	ES	
ITEM NO.	ITEM DESCRIPTION	OUANTITY	UNIT
207.3	UNCLASSIFIED CHANNEL EXCAVATION	542	СҮ
209.201	GRANULAR BACKFILL (BRIDGE) (F)	360	СҮ
403.911	HOT BITUMINOUS BRIDGE PAVEMENT, 1" BASE COURSE (F)	9	Т
502.0	REMOVAL OF EXISTING BRIDGE STRUCTURE	1	U
503.201	COFFERDAMS	1	U
504.1	COMMON BRIDGE EXCAVATION (F)	580	СҮ
508.	STRUCTURAL FILL	80	СҮ
520.0102	CONCRETE CLASS AA (QC/QA) (F)	39	СҮ
520.0302	CONCRETE CLASS AA, APPROACH SLABS (QC/QA) (F)	85	СҮ
520.12	CONCRETE CLASS A, ABOVE FOOTINGS (F)	181	СҮ
520.213	CONCRETE CLASS B, FOOTINGS (ON SOIL) (F)	130	СҮ
528.3121	PRESTRESSED CONCRETE BRIDGE DECK, BUTTED DECK BEAMS (F)	1640	SF
534.3	WATER REPELLENT (SILANE-SILOXANE)	25	GAL
538.2	BARRIER MEMBRANE, VERTICAL SURFACES (F)	18	SY
538.6	BARRIER MEMBRANE, WELDED BY TORCH-MACHINE METHOD (F)	200	SY
541.4	PVC WATERSTOPS, NH TYPE 4 (F)	60	LF
544.	REINFORCING STEEL (F)	22807	LB
544.2	REINFORCING STEEL, EPOXY COATED (F)	17623	LB
548.11	ELASTOMERIC BEARING PADS (F)	33	ΕA
559.41	MODIFIED ELASTOMERIC PLUG TYPE FLEXIBLE JOINT, 6" WIDE (F)	87	LF
559.5	SILICONE JOINT SEALANT (F)	110	LF
563.22	BRIDGE RAIL T2 (F)	105	LF
565.22	BRIDGE APPROACH RAIL T2 (F)	117	LF
585.21	STONE FILL, CLASS B (BRIDGE)	140	СҮ
593.311	GEOTEXTILE, STABILIZATION, CLASS I, NON-WOVEN	240	SY
593.411	GEOTEXTILE, PERMANENT CONTROL, CLASS I, NON-WOVEN	180	SY
645.22	SLOPE STABILIZATION (STEEPER THAN 2:1)	280	SY
646.41	TURF ESTABLISHMENT WITH MULCH, TACKIFIERS AND HUMUS	280	SY
1010.4	QUALITY CONTROL QUALITY ASSURANCE (QC/QA) FOR CONCRETE	1	U

<u>hydraulic data</u>







	TEST BORING REPORT STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION												O. B902		
		MA	TERIALS	& RESEA	RCH BUR	EAU - GE	OTECHNI	CAL SEC	TION			SHEET NO	OF2	—	
	PROJEC	T <u>AL</u>	<u>STEAD 1</u>	4541J	7/155 000		Brook	RIDGE N	O. <u>087/15</u>	5		BASELINE	NH Rte 123	_	
	DESCRI	PTION	GROUNI	WATER	1100 046	Vallei	FOUIP	MENT	SAMPLER		CORE	ELEVATION (ft)	<u> </u>	-	
	DATE	TIME	DEPTH	ELEV.	воттом	воттом	TYPE:		s	NW	UONE	DRILLER	P. Huckins (NHDOT)		
	8/29/06	8:00 am	(ft) 4.7	(ft) 662.3	OF CASING 0	OF HOLE 31.5	SIZE I.D. (in HAMMER V	1): VT. (Ib):	1.375 140	3 DRIL	L RIG		John Soper	-	
							HAMMER F	ALL (in): YPE:	30 Automatic	CME 4	5 Truck	NORTH/EAST (ft)	236880/806267		
	DEPTH	STRATUM	CHANGE (ft)	BLOWS	SAMPLE	SAMPLER	DEPTH		- FI				STRA	тим	
	- 0 -	DEPTH	ELEVATION	0.5 ft	NUMBER	(ft) [%]	(ft) 0.0	10000	grovieb brown. E				SYME	30L	
				5	S1	1.0 [50]		sand, lit	ttle fine gravel, lit	tile to trace coa	arse gravel, tra	ace silt.			
				14	5		2.0				-FILL-			錣	
				50	S2	1.1 [55]		Very de coarse	ense, grayish bro sand. little fine q	wn, FINE SAN ravel, little to tr	D, some to lit ace coarse q	tle medium and ravel, trace silt, with		*	
		3.5	663.5	8	۱		4.0	occasional cobble.					⁄Ř	22	
	- 5 -			14 15	53	1.2 [60]	7.0	Dense, olive brown, FINE and COARSE GRAVEL, some medium sand, little silt, trace coarse sand, with occasion	some fine and asional cobble.		1				
	•			18			6.0				-ALLUVIUM	-	(\neg	
														\neg	
														\neg	
BF														-	
BSF		9.3	657.7	12			9.0	Medium	n dense, olive gra	ay, SILT, trace	fine sand, wit	th frequent partings			
	- 10 -			6	S4	1.8 [90]		of fine s	sand, trace silt.					=	
							11.0			-LACI	USTRINE DE	POSIT-			
														=	
				5			14.0							=	
	- 15 -			6 8	S5	1.8 [90]		Medium of fine s	n dense, olive gra sand, trace silt.	ay, SILT, trace	fine sand, wit	th frequent partings			
				7	/		16.0								
				7			19.0								
	- 20 -			7 9	S6	1.4 [70]		Medium	n dense, olive gra	ay, SILT, trace	fine sand, wit	th frequent partings			
					,		21.0							=	
-		22 2	644.7												
		22.3	044./											-H	
							24.0						t.	<u>ا</u> لين	
	- 25 -			15 23	S7	1.7 [85]	24.0	Very de coarse	ense, dark olive g sand, trace fine g	ray, FINE SAN gravel, trace co	ID and SILT, barse gravel.	trace medium and	<u>Att</u>	계	
				38 30			26.0			-	GLACIAL TIL	L-	State 1	5-4	
														FH	
								Vonida	noo dark olivo a		ID and SILT	troco modium and	41	뇄	
				55/0.3	S8	0.2 [67]	28.0 28.3	coarse	sand, trace fine (gravel, trace co	barse gravel.			5.7	
				13			29.5	Small b	oulder from 28.3	to 29.4 feet.			Y.		
	- 30 -			17 18	S9	1.5 [75]		Dense, sand, tr	dark olive gray, l ace fine gravel, t	FINE SAND ar	nd SILT, trace avel, with occ	medium and coarse casional cobble and		<u>ا</u> نځ	
				18	3		31.5	boulder					P+t	3	
										Bottom of Exp	loration @ 3	1.5 ft (El. 635.5)			
	Sampler	Identificati	on Split Space	•	Blowe	COHESIN	/E SOILS		NON-COH	ESIVE SOILS	<u>s</u>	oil Descriptions	Proportion Major Component	\neg	
	SL	Large Spo	ion (O.D.= 3 i Tube	in)	0 -	1 1	Very Soft		0 - 4	Very Loose		ower Case Adjective	35% - 50% 20% - 35%		
	U 0	Undisturbe Open End	ed Piston		5 -	8 15	Medium Stiff		11 - 24 25 - 50	Medium Dens	е Ц т	ittle	10% - 20%		
	Â	Auger Flig	,ht el		16 -	30 60	Very Stiff Hard		> 50 NOR - Weight of R	Very Dense	'			\neg	

		STAT MA	TE OF NEW	TES V HAMP: & RESEA	T BOR	ING REI PARTMEN REAU - GE	PORT IT OF TRA OTECHNI
	PROJEC DESCRI	t <u>al</u> Ption	STEAD 1. Bridge	4541J No. 087	7/155 Ove	er Warren	Brook
			GROUNI	OWATER			EQUIP
		TIME	DEPTH	ELEV.	воттом	воттом	TYPE:
	0/20/06	0:00 em	(ft)	(ft) 001.0	OF CASING	OF HOLE	SIZE I.D. (in
	8/30/08	0.00 am	2.3	001.0	U	20	HAMMER F.
					-		HAMMER T
	DEPTH	STRATUM	CHANGE (ft)	BLOWS PER	SAMPLE	SAMPLER RECOVERY	DEPTH RANGE
	⊢ õ –	DEPTH	ELEVATION	0.5 ft		(ft) [%]	(ft) 0.0
				3	S1	0.7 [35]	
			660.0	5 6 7	s2	1.1 [55]	2.0
		3.3	000.0	16 16	5		4.0
-	- 5 -	5.8	658.3	12 10 11	2 S3	1.2 [60]	6.0
SF_							
	- 10 -			7 8 8	S4	1.8 [90]	9.0
	- 15 -			5 5	55	2 0 [100]	14.0
					5		16.0
	- 20 -	18.2	645.9	18 17 66 34		1.1 [55]	19.0 21.0
				10			24.0
	- 25 -			10 14 1!	5	1.3 [65]	26.0
	<u>Sampler</u>	Identificati	on			COHESI	E SOILS
	S SL	Standard Standard	SplitSpoon Ion (O.D.= 3 i	in)	Blows 0 -	/ <u>foot</u> 1	Consistency Very Soft
	<u>T</u>	Thin Wall	Tube	,	2 -	4	Soft
		Undisturbe Open End	ed Piston Rod		5 - 9 -	8 15	Medium Stiff Stiff
	Ă	Auger Flig	ht		16 -	30	Very Stiff
		Core Barre	el ded		31 - >∩	60	Hard Very Hard
		NOL RECOR	uðu		1 . 00		Josy Halla



							_675
		WI CO	an ere	BORING NO.	B90	3	
ANSPOR	TATION			SHEET NO.	1 OF	1	
CAL SE			Та)	STA. <u>358+3</u>	0 OFFL	T 18	670
RIDGE	NO. <u>087/155</u>		The second second	BASELINE	NH Rte 123	3	
				ELEVATION (ft)	664.	1	
MENT	SAMPLER	CASING	CORE	START/END	8/29/06 / 8/29	<u>9/06</u>	
n):	5 1.375	NW 3			John Sor	er	
NT. (lb):	140	DRILL R	RIG	CLASSIFIER	JKS		
FALL (in): TYPE:	30 Automatic	CME 45 1	ruck	NORTH/EAST (ft)	236913/8	06250	
						STRATUM	665
	FIC	ELD GLASSIFI	CATION	AND REMARKS		SYMBOL	
Loose	, grayish brown, Fli	NE SAND, some	e medium s	and, little coarse			
cobble	and small boulder	ice siit, trace coa :	irse gravei,	with occasional			
Oraula			-FILL-	41			
little fi	ne gravel, trace silt,	ND, some mediu , trace coarse gr	avel, with c	ue coarse sand, occasional cobble			
and sr	nall boulder.			no cond little fine			660
gravel	, little to trace silt, t	race coarse grav	vel, with oc	casional cobble.		<u> </u>	_000
Modiu	m danca, gravich h			- nodium cond little	-	\vdash	
_ coarse	e sand, little fine gra	avel, trace silt, tr	ace coarse	gravel, with	-		
	ional cobble and sn	nall boulder.			/		
	gray, Si∟i, uace ili	le sanu.					
		-LACUS	TRINE DE	POSIT-			655
1							
Mediu	m dense, olive gray	y, SILT, trace fin	e sand, wit	h frequent partings	-		
of fine	sand, trace silt.						
						<u> </u>	
							650
-							050
Mediu	m dense, olive gray	y, SILT, trace fin	e sand, wit	h frequent partings	-		
of fine	sand, trace silt.						
						<u></u>	
							645
Verv d	lense, dark olive or	av. SILT and FIN		trace medium to			
coarse	e sand, trace fine a	nd coarse grave	I, with occa	isional cobble.	-	ter est	
		-GI	ACIAL TIL	1-		H.A	
1						(1)	
						اه شاهم	
						100	
						4-1-1-	640
1						(A)	
Mediu	m dense, dark olive	e gray, SILT and	FINE SAN	ID, trace medium to	-		
coarse	e sand, trace fine a	nd coarse grave	i, with occa	isional coddie.		A. 19	
	E	Bottom of Explore	ation @ 26	5.0 ft (El. 638.1)			
<u> </u>							<u>635</u>
,	NON-COHE Blown front	SIVE SOILS		oil Descriptions	Proportion Major Company	ant	
	0 - 4	Very Loose		ower Case Adjective	35% - 50%		
f	5 - 10 11 - 24	Loose Medium Dense	S I	ome ittle	20% - 35% 10% - 20%		
·	25 - 50	Dense	T	race	1% - 10%		
\vdash	> 50 WOR - Weight of Ro	Very Dense d		F 1/			
	WOH - Weight of Ha	mmer		EN	วะเงก		
						_	_630

	BORING LOCA	ATIONS
NO.	NORTHING	EASTING
B901	236850	806279
B902	236880	806267
B903	236913	806250
B904	236880	806324
B905	236855	806316
B906	236812	806343

BORING NOTES

- 1. BORINGS INDICATED THUS 🗣 WERE MADE BY THE NHDOT FROM AUGUST TO SEPTEMBER 2006. FIGURES IN THE 'BLOWS PER 0.5 FT' COLUMN INDICATE THE NUMBER OF BLOWS REQUIRED TO DRIVE A 2" O.D. STANDARD SPLIT SPOON SAMPLER 6 INCHES, USING A 140 LB. WEIGHT FALLING 30 INCHES.
- 2. BORINGS ARE FOR DESIGN PURPOSES SHOWING CONDITIONS AT BORING POINTS ONLY AND DO NOT NECESSARILY INDICATE MATERIAL TO BE ENCOUNTERED DURING CONSTRUCTION.
- 3. THE SOILS REPORT IS AVAILABLE IN THE NHDOT BUREAU OF MATERIALS AND RESEARCH OFFICE. SEE PROSECUTION OF WORK FOR MORE INFORMATION.
- 4. WATER LEVELS INDICATED THUS Ξ were measured at the time of EXPLORATION. THE WATER LEVELS ENCOUNTERED DURING CONSTRUCTION MAY VARY CONSIDERABLY DUE TO PREVAILING CLIMATE, RAINFALL, OR OTHER FACTORS.

STAT	E OF NEV	WHAN	APSE	IIRE					
DEPARTMENT OF TRAI	NSPORTATIO	N * BUR	EAU O	F BRIDGE	DESIG	<u>N</u>			
ALSTEAD		BRIDGE NO	D. 087	\156 ST#	ATE PROJ	ECT 1	4541J		
ON NH ROUTE 123 over WARREN B	ROOK								
PRELIMINAT	Y BORT	NGLC	$\overline{\mathbf{)}}\overline{\mathbf{G}}$ (1)	OF(2)			BRIDC	E SHEE	T
						DATE	י צי	OF 6	
REVISIONS AFTER PROPOSAL		BY	DATE	ļ	ВХ	DATE	5	0	'
	DESIGNED	NHDOI	9/06	CHECKED		XX/XX	FILE 1	VUMBER	ર
	DRAWN	SMG	9/06	CHECKED	SDF	9/06	104	: 2 1	
	QUANTITIES	XXX	XX/XX	CHECKED	XXX	XX/XX	10:)-3-1	
	ISSUE DATE		FEDERAL	PROJECT NO.	SHE	ET NO.	TOTA	LSHEET	ſS
	REV. DATE					XX	2	XX	

<u>675</u>		PROJEC	STAT MA CT <u>AL</u>	TE OF NE TERIALS	TES WHAMPS & RESEA 14541J	T BOR SHIRE DE RCH BUF	ING REI		NSPORT AL SEC RIDGE NO	ation Tion D. <u>087/15</u>	5		BORING NO. SHEET NO STA BASELINE	B90 OF OFF <u>L</u> NH Rte 123) 4 2 .T 25 3
		DESCRI	PTION	Bridge	3 NO. 08	(/155 Ov	er warren	Brook				TRAN	ELEVATION (ft)	668.	5
			1	GROUN	DWATER		1		IENT	SAMPLER		CORE	START/END	8/30/06 / 8/3 P. Huckins (NHD	1/06 OT)
		DATE	TIME	DEPTH (ft)	ELEV. (ft)	BOTTOM OF CASING	OF HOLE	SIZE I.D. (in):		1.375	3			John Sop	ber
		8/31/06	2:00 pm	4.3	664.2	0	30	HAMMER WI	「. (Ib):	140		<u>L RIG</u>	CLASSIFIER .	JKS	
670								HAMMER TY	PE:	Automatic	<u>CME 4</u>	5 Truck	NORTH/EAST (ft)	236880/8	06324
		DEPTH	STRATUM	CHANGE (ft)	BLOWS PER	SAMPLE	SAMPLER RECOVERY	DEPTH RANGE		FI	IELD CLASS	IFICATION	AND REMARKS		STRATUN
		– ° –	DEPTH	ELEVATION	0.5 ft 1 1 3	S1	(ft) [%] 1.1 [55]	(ft) 0.0	Very loc coarse	ose, dark grayis sand, little fine g	h brown, FINE ravel, trace silt	and MEDIUM	SAND, some		
665					2 10 13	s2	0.5 [25]	2.0	Medium coarse :	dense, dark gr sand, little fine g	ayish brown, F ravel, trace silt	-FILL-	IUM SAND, some		
		- 5 -	4.5	664.0	11 7 11 10	S3	1.7 [85]	4.0	Medium coarse	dense, dark yel sand, little coars	llowish brown, e sand, little to	FINE GRAVE trace silt.	L, some fine to	-	
660			6.5	662.0								-ALLUVIUM-			
	BE	- 10 -	_		8 4	S4	2.0 [100]	9.0	Medium sand, tr	i dense, gray, SI ace silt.	LT, trace fine s	sand, with freq	uent partings of fine	-	
	BSF					7		11.0			-LAC	USTRINE DEI	POSIT-		
655															
		- 15 -	-		5 6 6	S5	0.3 [15]	14.0	Medium sand, tr	i dense, gray, SI ace silt.	ILT, trace fine s	sand, with freq	uent partings of fine	-	
<u>650</u>					3 4			19.0	1.0050	nrav SIIT trace	a fine cand with	h frequent par	tings of fine sand		
		_ 20 -			4	5	2.0 [100]	21.0	trace sil	ILT, trace fine sa	and, with frequ	ent partings of	fine sand, trace	-	
645			24.3	644.2	3 4 15	\$7	1.6 [80]	23.0	silt.						
		- 25 -						25.0	Dark oli trace fir	ve gray, SILT ar e gravel.	nd FINE SAND	, trace mediun -GLACIAL TIL	n to coarse sand, L-	-	- toto
640		- 30 -			18 25 26 2!	5	2.0 [100]	28.0	Very de coarse :	nse, dark olive g sand, trace fine g	gray, SILT and gravel.	FINE SAND, 1	trace medium to		
C 7 F											Bottom of Exp	oloration @ 30	0.0 ft (El. 638.5)		
		Sampler S SL T U O A C	Identificati Standard S Large Spo Thin Wall Undisturbe Open End Auger Flig Core Barr	<u>on</u> Split Spoon oon (O.D.= 3 Tube ed Piston Rod ht	in)	<u>Blows</u> 0 - 2 - 5 - 9 - 16 - 31 -	COHESIN 5/foot 1 4 8 15 30 60	/E SOILS <u>Consistency</u> Very Soft Soft Medium Stiff Stiff Very Stiff Hard		NON-COH Blows/foot 0 0 - 4 5 - 10 11 - 24 25 - 50 VOR - Weight of P - 50	IESIVE SOILS <u>Densitv</u> Very Loose Loose Medium Dens Dense Very Dense	Se Se Se Se Se Se Se Se Se Se Se Se Se S	oil Descriptions apitalized Soil Name ower Case Adjective ome ttle race	Proportion Major Compone 35% - 50% 20% - 35% 10% - 20% 1% - 10%	ent
630			Not Recor	ded		>60		Very Hard	v	VOH - Weight of H	ammer		ENG		





BORING LOGS scale: 1/4" = 1'-0"				—
SAMPLE PLAN DATE: 10-25-2006		PRELIMIN SUBJECT	NARY PLANS TO CHANGE	TC
		DATE 2	<u>5-0CT-06</u>	
	SUBDIRECTORY BRD/PRELPLNS	.DGN LOCATOR 14541JBORLOG-P	SHEET SCALE AS NOTED	┢

BSF = BOTTOM OF STRUCTURAL FILL

BF = BOTTOM OF FOOTING

			TEST BORING REPORT									BORING NO.	B90	05	
		STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION									SHEET NO	1 05	2		
	MATERIALS & RESEARCH BUREAU - GEOTECHNICAL SECTION									SHEET NU					
	PROJECT _ALSTEAD 14541J BRIDGE NO087							O087/15	5			UFF NH Rtte 12	3		
	DESCRIPTION Bridge No. 087/155 Over Warren Brook								TRANSFORM		665	0			
	GROUNDWATER						FOUIP	MENT		CASING	CORE		9/6/06 / 9/6	/06	
									S S		UUNE		J. Kibbee (NHD		
	DATE	TIME	DEPTH (ft)	ELEV. (ft)	OF CASING	OF HOLE	SIZE I.D. (ir	ז):	1.375	3			John So	ber	
	9/7/06	8:00 am	0.9	664.1	0	30	HAMMER V	VT. (Ib):	140	DRILL	. RIG	CLASSIFIER	JKS		
							HAMMER F	ALL (in):	30 Automotio	CME 45-C	Track rig	NORTH/EAST (ft)	236855/8	306316	
		STRATUM	CHANGE (ff)	BLOWS		SAMDI ER			Automatic						
	DEPTH (ft)	DEPTH		PER	SAMPLE NUMBER	RECOVERY	RANGE		FI	ELD CLASSI	FICATION	AND REMARKS		STRATUN	
	- o -	DE : 111		1		(14 [%]	0.0								
				3	64	4 9 (95)		little fin	e aravel. trace sil	t.	M SAND, SO	me coarse sand,			
				7	31	1.3 [00]			0						
				2	2		2.0	-			-ALLUVIUM	-		\sim	
				5		4 3 (20)		Medium	n dense. dark oliv	/e arav. FINE to	MEDIUM S	AND, some coarse		\vdash	
				7	32	1.2 [00]		sand, li	ittle fine gravel, tr	ace silt.		•			
		43	660.7	7	′⊢−−−		4.0								
	L = _		000.7	4		1 4 [70]		Loose,	gray, SILT, trace	fine sand, with	frequent par	tings of fine sand,	_		
	3			4		1.4[/0]		trace si	IIC.						
					′⊢−−−		6.0			-LACU	JSTRINE DE	POSIT-			
BF															
BCE															
<u>D3F</u>															
							1								
	- 10 -													<u> </u>	
		-		4			10.0	-							
				4	64	2.0 [100]		Loose.	grav, SILT, trace	fine sand, with	frequent par	tings of fine sand.		<u> </u>	
				5	- 34	2.0 [100]	12.0	trace silt.							
				1 *	°			4							
								H H							
		13.5	651.5												
	L 15 _				S5	S5 1.4 [70]	15.0	Medium dense, dark olive gray, FINE SAND and SILT, trace medium to							
	15			8										Ľ.	
								coarse	sand, trace fine g	gravel.				the-	
					9		17.0			-	GLACIAL TIL	L-		Ktto-	
														. سند ا	
														10-19-	
														4-12	
														127	
	- 20 -	-		8			20.0								
				7	66	1 4 (70)		Medium	n dense, dark oliv	/e gray, FINE S	AND and SI	T, trace medium to		-at-a-	
				9	. 30	1.4[/0]		coarse cobble.	sand, trace fine (and, trace fine gravei, trace coarse gravei, with occasional					
							22.0							. سد ٦٠	
														10-	
							1							زية البلز	
														hut	
	25												-	مواريخ	
	^{- 20} -			5_			25.0	Medium	n dense dark oliv	e orav FINE S	AND and SI	T. trace medium to	-	A.K.	
				7 9	S7	1.2 [60]	1	coarse	sand, trace fine g	gravel, trace co	arse gravel, v	with occasional		D4·	
				1	в		27.0	cobble.							
														H.K.	
				6			28.0	{						it the	
				10			1							Kiz.	
				12	_ ^{S8}	1.5 [75]	1	Mediun	n dense, dark oliv	/e gray, FINE S	AND and SI	T, trace medium to		Mit.	
	- 30 -	1		1	′├──┤		30.0	<u>cob</u> ble.		udue 00	ulao gidvel, '		/		
										Bottom of Evol	oration @ 3	0.0 ft (FL 635.0)			
										Dottoin of Expl		5.0 R (El. 655.0)			
	Comela-	denii#-r*		1	+	CUHES	I VE SOILS	<u> </u>	NUNTCOR	ESIVE SOILS		ail Deportations	Dronotion		
	Sampler S	Standard	ou Split Spoon		Blows	/foot	Consistency		Blows/foot	Density		apitalized Soil Name	<u>Proportion</u> Major Compon	ent	
	SL	Large Spo	on (O.D.= 3	in)	0 -	1	Very Soft		0 - 4	Very Loose		ower Case Adjective	35% - 50%		
		Thin Wall	Tube ed Piston		2 -	4 8	Soft Medium Stiff	F	5 - 10 11 - 24	Loose Medium Dense	, S	ome ittle	20% - 35% 10% - 20%		
	ŏ	Open End	Rod		9 -	15	Stiff		25 - 50	Dense	- L	race	1% - 10%		
	Â	Auger Flig	ht el		16 -	30 60	Very Stiff Hard		> 50 WOR - Weight of D	Very Dense					
		Not Recor	ded		<u>>60</u>		Very Hard		WOH - Weight of Ha	ammer		ENG	LISH		

				TES	T BORI	NG RE	PORT						
		STAT	E OF NE	N HAMP	SHIRE DE	PARTME	NT OF TRA						
		MATERIALS & RESEARCH BUREAU - GEOTECHNIC											
		Τ <u>ΑL</u> ΡΤΙΩΝ	<u>STEAD</u> Bridae	14541J • No. 08	7/155 Ove	er Warren	Brook						
	GROINDWATER												
	DATE	TIME	DEPTH	ELEV.	BOTTOM	воттом	TYPE:						
	8/31/06	9:00 am	(ft) 44	(ft) 665.7	OF CASING	OF HOLE	SIZE I.D. (in) HAMMER W						
		0.00 a					HAMMER F						
		STRATUM	CHANGE (ft)	BLOWS		SAMPLER	DEPTH						
	(ft)	DEPTH	ELEVATION	PER 0.5 ft	NUMBER	RECOVERY (ft) [%]	RANGE (ft)						
				1			0.0						
				2	S1	0.4 [20]							
				1	2		2.0 2.0						
				52 50/0.2	S2	1.0 [83]	3.2						
	L 5 _	4.8	665.3										
				7			5.0						
				6	7 53	1.7 [85]							
				6			7.0						
				6	S4	1.2 [60]							
					8		9.0						
	L 10 -												
BE													
<u>B2F</u>				4			13.0						
	- 15 -			5	S5	1.3 [65]							
					6		15.0						
				4			18.0						
				5	S6	2.0 [100]							
	- 20 -				5		20.0						
			047.0										
		22.8	647.3	22			23.0						
				40 36	\$7	0.7 [35]							
	- 25 -			3	7		25.0						
				40 42			26.0						
				35	S8	1.3 [65]							
				3	<u>ه</u>		28.0						
	Sampler	Identificatio	n		+	COHESIN	L /E SOILS						
	S	Standard S	Split Spoon	in)	Blows	/foot	Consistency						
	^{5∟} T	Large Spo Thin Wall	Fube	11)	2 -	4	very 50π Soft						
	0	Undisturbe Open End	d Piston Rod		5 - 9 -	8 15	Medium Stiff Stiff						
	A C	Auger Flig	ht M		16 - 31 -	30 60	Very Stiff Hard						
	NR	Not Record	ded		> 60		Very Hard						



STATE OF NEW HAMPSHIRE									
DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN									
ALSTEAD		BRIDGE	NO.	087	156 ST.	ATE PROJ	ECT	14541J	
ION NH ROUTE 123 over WARREN BROOK									
PRELIMINARY BORING LOG (2 OF 2)								BRIDGE SHEET	
REVISIONS AFTER PROPOSAL			B	Y I	DATE		BY	DATE] 4 ^{OF} 6
		DESIGNED	NHD	ОТ	9/06	CHECKED	XXX	XX/XX	FILE NUMBER
		DRAWN	SM	G	9/06	CHECKED	SDF	9/06	105 2 1
		QUANTITIES	XX	x x	X/XX	CHECKED	XXX	XX/XX	105-3-1
		ISSUE DATE		FE	DERAL	PROJECT NO.	SHI	EET NO.	TOTAL SHEETS
		REV. DATE		1				XX	XX







PRELIMINARY DECK SECTION SCALE: 1/4" = 1'-0"

* RADIAL DIMENSION



	r			, ו	TOW	N A
	PRELIMINARY PLANS					ATION
		SUBJECT TO CHANGE				
		DATE 2				
SUBDIRECTORY	.DGN	LOCATOR	SHEET SCALE	╂		
BRD/PRELPLNS	14541.	IPre-Decksect AS NOTED				

SAMPLE PLAN

DATE: 10-25-2006

DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN											
ALSTEAD		BRIDGE N	JE NO. 087\156		STATE PROJECT		14541J				
ON NH ROUTE 123 over WARREN BROOK											
PRELIMINARY DECK SECTION											
REVISIONS AFTER PROPOSAL		BY	DATE		BY	DATE	6 ^{OF} 6				
	DESIGNED	SDF	9/06	CHECKED	XXX	XX/XX	FILE NUMBER				
	DRAWN	SMG	9/06	CHECKED	XXX	XX/XX	105 2 1				
	QUANTITIES	XXX	XX/XX	CHECKED	XXX	XX/XX	103-3-1				
	ISSUE DATE		FEDERAL PROJECT NO.		SHE	ET NO.	TOTAL SHEETS				
	REV. DATE		XX				XX				

STATE OF NEW HAMPSHIRE