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GENERAL NOTES

- FOR STANDARD PLANS, SEE DEPARTMENT OF TRANSPORTATION WEBSITE AT: WWW.NH.GOV/DOT/ORG/PROJECTDEVELOPMENT/HIGHWAYDESIGN/STANDARDPLANS/INDEX.HTM.
- HIGH TENSION OVERHEAD TRANSMISSION LINES ARE LOCATED THROUGHOUT THE PROJECT WITH CROSSINGS AT VARIOUS LOCATIONS AND RUNNING ALONG THE ROAD THROUGHOUT THE PROJECT EVEN ON REGULAR POLES. THE CONTRACTOR IS ADVISED THAT EXTREME CAUTION WILL BE REQUIRED IN THE OPERATION OF EQUIPMENT, ESPECIALLY CRANES AND PILE DRIVING EQUIPMENT.
- MODIFY SUPERELEVATION ON EXISTING CURVES BY THE USE OF A LEVELING COURSE TO THE RATES INDICATED ON THE PLANS OR AS ORDERED.
- 4 EXISTING DELINEATORS AND WITNESS MARKERS THAT ARE REMOVED AND DETERMINED BY THE ENGINEER TO BE IN ACCEPTABLE CONDITION SHALL BE RESET (SUBSIDIARY). ADDITIONAL DELINEATORS AND WITNESS MARKERS ORDERED WILL BE PAID UNDER THE APPROPRIATE ITEMS OF THE CONTRACT.
- NO EXISTING MONUMENTS, BOUNDS, OR BENCHMARKS SHALL BE DISTURBED WITHOUT FIRST MAKING PROVISIONS FOR RELOCATION.

- 6 PERFORM ALL WORK WITHIN THE EXISTING RIGHT-OF-WAY, UNLESS OTHERWISE SHOWN ON THE PLANS OR AS ORDERED BY THE ENGINEER.
- 7) REMOVE UNPROTECTED PROJECT MARKERS (SUBSIDIARY).
- SURVEY DATA FOR THIS PROJECT WAS COLLECTED BY SDR AND THE FIELD NOTES CAN BE FOUND IN THE FIELD BOOK(S) ____.

 COORDINATES ARE NEW HAMPSHIRE STATE PLANE COORDINATES OF NAD83, ____ ADJUSTMENT AND THE BEARINGS ARE GRID.

 ELEVATIONS ARE REFERENCED TO ____.
- QUANTITIES FOR EMBANKMENT AND EXCAVATION FOR SLOPE ROUNDINGS
 AS SHOWN ON THE TYPICALS HAVE NOT BEEN CALCULATED AND ARE NOT
 INCLUDED IN THE QUANTITY SUMMARIES, AND ARE CONSIDERED
 SUBSIDIARY TO THE APPROPRIATE 203 ITEMS.

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NHDOT Bridge Design
8/7/23

SAMPLE PLAN
Details and notes may not be current.
Closely review before using details.

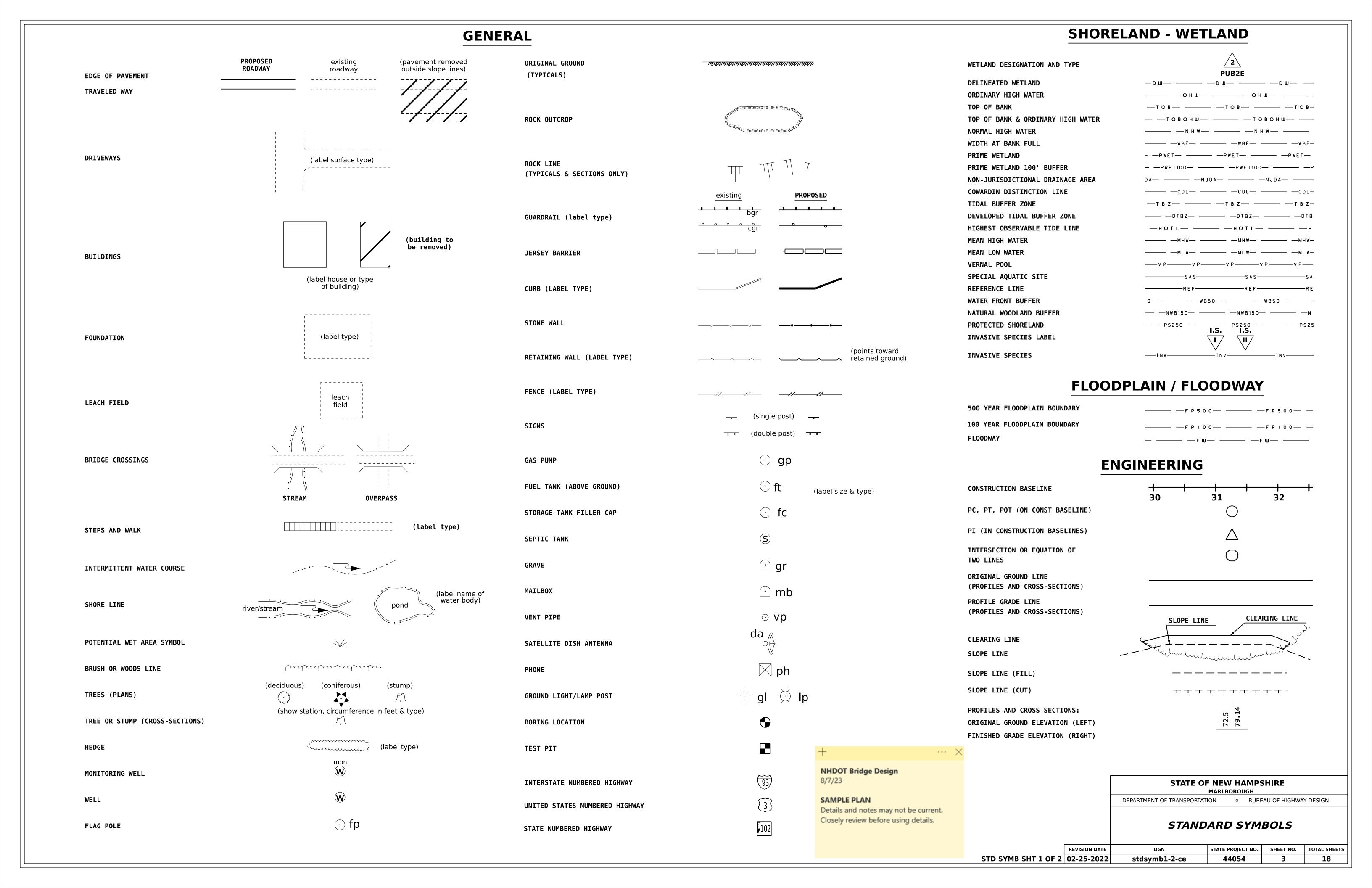
STATE OF NEW HAMPSHIRE

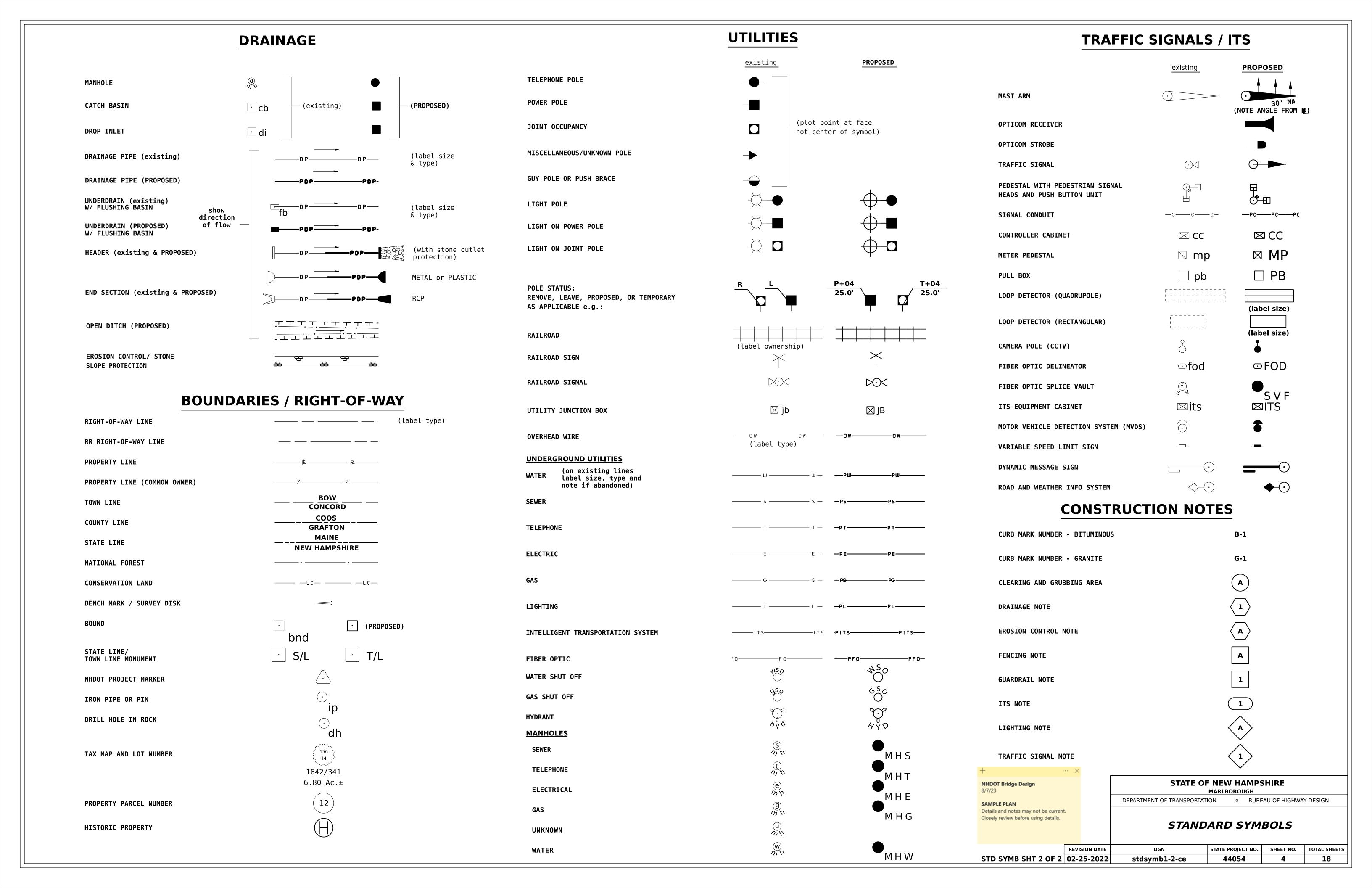
MARLBOROUGH

INDEX OF SHEETS
AND GENERAL NOTES

REVISION DATE DGN STATE PROJECT NO. SHEET NO. TOTAL SHEETS

Index of Sheets 02-25-2022 index-sheet-ce 44054 2 18





SCOPE OF WORK

MARLBOROUGH BR NO 077/065

NH ROUTE 12 over SOUTH BRANCH ASHUELOT RIVER

- REMOVE AND REPLACE DECK PAVEMENT AND MEMBRANE
- REPAIRS TO EAST FASCIA
- FULL AND PARTIAL DEPTH DECK REPAIRS
- INSTALL 6" CRACK SEAL AT NORTH END
- INSTALL 20" PLUG JOINT AT SOUTH END

MARLBOROUGH BR NO 072/075 NH ROUTE 12 over SOUTH BRANCH ASHUELOT RIVER

- REMOVE AND REPLACE DECK PAVEMENT AND MEMBRANE
- FULL AND PARTIAL DEPTH DECK REPAIRS
- DEDLACE EAST CDANTTE CURP WITH CONCRETE CURP
- REPLACE EAST GRANITE CURB WITH CONCRETE CURB - CONCRETE ABUTMENT AND WING REPAIRS
- INSTALL 6" CRACK SEAL AT NORTH END

- INSTALL 20" PLUG JOINT AT SOUTH END MARLBOROUGH BR NO 066/080

NH ROUTE 12 over SOUTH BRANCH ASHUELOT RIVER

- REMOVE AND REPLACE DECK PAVEMENT AND MEMBRANE
- REPAIRS TO EAST FASCIA
- FULL AND PARTIAL DEPTH DECK REPAIRS
- CONCRETE ABUTMENT AND WING REPAIRS
- INSTALL 6" CRACK SEAL AT NORTH END - INSTALL 20" PLUG JOINT AT SOUTH END
- REPLACE MISSING BOLTS

MATERIALS AND SPECIFICATIONS

1. SPECIFICATIONS: AASHTO 2014, LRFD BRIDGE DESIGN SPECIFICATIONS
WELDING PER AASHTO/AWS D1.5-02 & NHDOT 2016 STANDARD
SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION,

AS AMENDED

2. CONCRETE: PARTIAL DEPTH DECK REPAIRS = 4000 psi ITEM 520.01, CONCRETE CLASS AA

CLASS II ABUTMENT REPAIRS = 4000 psi

ITEM 520.02012, CONCRETE CLASS AA, ABOVE FOOTINGS (ABUT/WALL/PIER REPAIR)

FULL DEPTH DECK REPAIRS = 4000 psi

ITEM 520.02013, CONCRETE CLASS AA, ABOVE FOOTINGS

(FULL DECK REPAIR)
DECK END AND TOP OF BACKWALL CONTRUCTION = 4000psi

ITEM 520.0201, CONCRETE CLASS AA, ABOVE FOOTINGS

3. REINFORCING STEEL: AASHTO M31 (ASTM A615) GRADE 60 EPOXY COATED

REMOVAL NOTES

- 1. THE CONTRACTOR SHALL SUBMIT, FOR DOCUMENTATION IN ACCORDANCE WITH SECTION 105.02, A DETAILED OUTLINE OR PLAN OF THE PROPOSED METHOD FOR ITEM 502. PRIOR TO COMMENCEMENT OF ANY REMOVAL WORK.
- 2. REMOVAL OF EXISTING BRIDGE STRUCTURE, ITEM 502, EXCEPT AS OTHERWISE SHOWN IN THE PLANS, SHALL INCLUDE:
 - (A) REMOVAL OF EXISTING GRANITE CURB, CURB ANCHORS, AND GROUT BED ON EAST COPING BR NO 072/075
- 3. EXISTING DECK PAVEMENT AND MEMBRANE SHALL BE REMOVED UNDER ITEM 511.000X, CONCRETE BRIDGE DECK PAVEMENT REMOVAL (F).

TO THE CONTRACTOR

THE CONTRACTOR SHOULD BE AWARE THAT EXISTING STRUCTURE DIMENSIONS AND ELEVATIONS SHOWN ON THESE PLANS WERE TAKEN FROM ORIGINAL BRIDGE PLANS AND DO NOT NECESSARILY REPRESENT "AS BUILT" DIMENSIONS AND ELEVATIONS. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS OF THE EXISTING STRUCTURES AND BE PREPARED TO MAKE ANY ADJUSTMENTS REQUIRED TO PROPERLY REHABILITATE THE BRIDGE. ANY DISCREPANCIES IN DIMENSIONS, CHARACTER, OR EXTENT OF THE EXISTING FEATURES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO ADVANCING THE WORK. THE EXISTING BRIDGE PLANS ARE AVAILABLE ONLINE IN THE BID PACKAGE ON THE INVITATION TO BID WEBPAGE DURING THE BIDDING PERIOD. AFTER THE CONTRACT IS AWARDED, A COMPLETE SET OF THE EXISTING PLANS WILL BE FORWARDED TO THE CONTRACTOR UPON REQUEST. THE FILE NUMBERS FOR THESE BRIDGES ARE FOUND IN THE GENERAL CONSTRUCTION NOTES, NOTE 1 THIS SHEET.

GENERAL CONSTRUCTION NOTES

1. EXISTING BRIDGE PLANS ARE AVAILABLE ONLINE IN THE BID PACKAGE ON THE INVITATION TO BID WEBPAGE DURING THE BIDDING PERIOD. FILE NUMBERS FOR EACH BRIDGE ARE LISTED AS FOLLOWS:

MARLBOROUGH BR NO 077/065 FILE NO 3-7-1-14

PROPOSAL 13593 (2002)
MARLBOROUGH BR NO 072/075 FILE NO 3-7-1-15

PROPOSAL 13593 (2002)
MARLBOROUGH BR NO 066/080 FILE NO 3-7-1-16

PROPOSAL 13593 (2002)

- 2. PORTABLE CONCRETE BARRIER AND CHANNELIZING DEVICES SHALL BE IN PLACE BEFORE REMOVAL OPERATIONS BEGIN FOR EACH CONSTRUCTION PHASE. SEE TRAFFIC CONTROL PLANS FOR BARRIER LAYOUT OF PROPOSED PHASED CONSTRUCTION.
- 3. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO INSURE THAT DEBRIS DOES NOT FALL INTO THE WATERWAYS BELOW EXISTING STRUCTURES. ALL COST TO BE SUBSIDIARY UNDER ITEM 502.10X AND SHALL INCLUDE THE ERECTION, MAINTENANCE, AND REMOVAL OF TEMPORARY STRUCTURES OR OTHER SUCH METHODS AS APPROVED.
- 4. NO SCAFFOLDS SHALL BE ERECTED OR OPERATIONS CONDUCTED IN THE ROADWAY RIGHT OF WAY. UNLESS APPROVED BY THE CONTRACT ADMINISTRATOR.
- 5. DURING ALL REMOVAL AND REPAIR OPERATIONS EXTREME CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING DECK REINFORCEMENT TO REMAIN. ANY DAMAGE SHALL BE IMMEDIATELY REPORTED TO THE BUREAU OF BRIDGE DESIGN AND REPAIRED AS DIRECTED, AT THE CONTRACTOR'S EXPENSE.
- 6. AFTER REMOVAL OF EXISTING PAVEMENT AND MEMBRANE, AS REQUIRED IN THE SCOPE OF WORK, THE EXISTING CONCRETE BRIDGE DECKS SHALL BE "SOUNDED" TO DETERMINE AREAS REQUIRING PARTIAL AND FULL DEPTH DECK REPAIRS. ALL COSTS TO BE INCLUDED IN ITEM 511.02 OR ITEM 511.03.
- 7. DETERIORATED AREAS OF DECK SHALL BE PATCHED WITH CONCRETE CLASS AA. PRIOR TO PLACING NEW CONCRETE, THE PREPARED AREAS SHALL BE BLAST CLEANED AND SATURATED SURFACE DRY (ALL COSTS SUBSIDIARY TO ITEM 520.01 OR 520.02013).
- 8. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED $\frac{3}{4}$ ", UNLESS OTHERWISE NOTED.
- 9. ITEM 538.5, BARRIER MEMBRANE, HEAT WELDED (F) SHALL BE OVERLAPPED PER MANUFACTURER'S REQUIREMENTS. AT DECK ENDS, WHERE THE MEMBRANE WILL NOT OVERLAP NEW OR EXISTING MEMBRANE, A SEALANT/REPAIR MASTIC COMPATIBLE WITH ITEM 538.5 SHALL BRIDGE ANY GAP BETWEEN THE EXISTING MEMBRANE AND NEW MEMBRANE OR BETWEEN THE NEW MEMBRANE AND THE END DECK WHEN THERE IS NO EXISTING MEMBRANE. ALL COSTS SHALL BE SUBSIDIARY TO ITEM 538.5.
- 10. PROFILE ADJUSTMENTS IN THE VICINITY OF THE REHABILITATED BRIDGES SHALL BE MADE AS REQUIRED OR AS DIRECTED TO ACCOUNT FOR VARIATIONS IN THE BRIDGE DECK CROSS SLOPES. ALL COSTS SHALL BE SUBSIDIARY TO THE APPROPRIATE ITEMS.
- 11. EXISTING BRIDGE DECK COPINGS, WINGS, AND ABUTMENT FACES SHALL BE WASHED, SUBSIDIARY TO ITEM 534.3, IN SUCH A MANNER THAT OVERSPRAY INTO SURFACE WATERS IS KEPT TO A MINIMUM. IF THE WATER BEADS, NO COATING NEEDS TO BE APPLIED. IF THE WATER DOES NOT BEAD, COAT THE SURFACE WITH ITEM 534.3, WATER REPELLENT (SILANE-SILOXANE). APPLICATION RATE = 150 SF/GAL.
- 12. PROVIDE ITEMS 403.16 AND 403.26, AS REQUIRED, ALONG LONGITUDINAL JOINTS BETWEEN PAVEMENT PASSES FOR EACH PAVEMENT COURSE, ALONG BRIDGE CURBS, ALONG ROADWAY CURBS, AND TRANSVERSELY ALONG EXPANSION JOINT ARMORING AND PAVEMENT MATCHES.
- 13. APPLY ITEM 410.22, ASPHALT EMULSION FOR TACK COAT, TO BOTH EXISTING AND PROPOSED BRIDGE AND ROADWAY PAVEMENT COURSES PRIOR TO PLACING THE NEXT COURSE.
- 14. EXISTING REINFORCING STEEL THAT IS TO REMAIN IN PLACE WITHIN THE RECONSTRUCTED AREAS SHALL BE CUT AS REQUIRED TO PROVIDE $2\frac{1}{2}$ " MINIMUM CLEAR COVER FROM THE PROPOSED CONCRETE SURFACES, EXCEPT AS OTHERWISE NOTED. ALL COSTS INCLUDED IN ITEMS 502.101. ALL NEW REINFORCING BARS SHALL HAVE A MINIMUM CLEAR COVER OF $2\frac{1}{2}$ " FROM PROPOSED CONCRETE SURFACES UNLESS OTHERWISE NOTED.
- 15. DISCRETE ANODES SHALL BE PLACED IN LOCATIONS AS SHOWN ON THE PLANS. THE ANODES SHALL BE ONLY TIED TO THE EXISTING BLACK REINFORCING, AS NOTED IN THE SPECIAL PROVISION. FOR FULL-DEPTH DECK REPAIRS, THE ANODES ARE TIED TO BOTH TOP AND BOTTOM REINFORCING MATS. ALL COSTS SHALL BE INCLUDED IN ITEM 540.512.
- 16. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL MAKE A RECORD OF THE EXISTING PAINT PAVEMENT MARKINGS. UPON COMPLETION OF THE BRIDGE WORK, THE PAVEMENT MARKINGS SHALL BE REPLACED IN KIND WITH ITEM 632.0104, RETROREFLECTIVE PAINT PAVE. MARKING, 4" LINE.

SUMMARY OF BRIDGE QUANTITIES

		NO 077 UTE 12 BRANCH	LOT RIL NO 072 UTE 12 BRANCH	LOT RIU NO 066 UTE 12 BRANCU		
		BR NO 6 ROUTE S BRAI	BR NO (NH ROUTE S BRA)	BR NO ON ROUTE S BRAN	ONUELOT	
		MH B				
ITEM NO.	ITEM DESCRIPTION		/		QUANTITY	UNIT
403.11043	HBP - 1/2" SURFACE MIX, MACHINE METHOD	77	49	77	203	TON
403.16	PAVEMENT JOINT ADHESIVE	689	689	689	2067	LF
403.21053	HBP - 3/8" MIX, MACHINE METHOD (BRIDGE BASE) PAVEMENT JOINT ADHESIVE (BRIDGE BASE)	28 877	43 877	28 877	99 2631	TON LF
410.22	ASPHALT EMULSION FOR TACK COAT	46	46	46	138	GAL
417.	COLD PLANING BITUMINOUS SURFACES	574	574	574	1722	SY
502.101	REMOVAL OF EXISTING BRIDGE STRUCTURE	-	1	-	1	U
511.0001	CONCRETE BRIDGE DECK PAVEMENT REMOVAL (F)	329	-	-	329	SY
511.0002	CONCRETE BRIDGE DECK PAVEMENT REMOVAL (F)	-	329	-	329	SY
511.0003	CONCRETE BRIDGE DECK PAVEMENT REMOVAL (F)	-		329	329	SY
511.02	PREPARATION FOR PARTIAL DEPTH CONCRETE BRIDGE DECK REPAIRS	33	33	33	99	SY
511.021 511.03	PREPARATION FOR PARTIAL DEPTH CONCRETE BRIDGE DECK REPAIRS (OVERHEAD) PREPARATION FOR FULL DEPTH CONCRETE BRIDGE DECK REPAIRS	2 4		3 4	5 10	SY SY
511.03	PREPARATION FOR CONCRETE REPAIRS, CLASS II	- 4	2 4	8	12	SY
520.01	CONCRETE CLASS AA	5	 5	5	15	CY
520.0201	CONCRETE CLASS AA, ABOVE FOOTINGS	0.5	2	0.5	3	CY
520.02012	CONCRETE CLASS AA, ABOVE FOOTINGS (ABUT/WALL/PIER REPAIR)	-	1	2	3	CY
520.02013	CONCRETE CLASS AA, ABOVE FOOTINGS (FULL DECK REPAIR)	1	1	1	3	CY
520.421	CONCRETE CLASS F, FLOWABLE FILL, EXCAVATABLE	1	1	1	3	CY
521.22	FAST-SET CONCRETE PATCHING MORTAR (VERTICAL AND OVERHEAD)	1		1	2	CY
534.3	WATER REPELLENT (SILANE-SILOXANE)	33	42	35	110	GAL
538.5	BARRIER MEMBRANE, HEAT WELDED (F) (42 GAL TACK COAT SUBSIDIARY)	329	329	329	987	SY
540.512	GALVANIC CORROSION PROTECTION SYSTEM (DISCRETE ANODES)	234	234	288	756	EA
559.41	ASPHALTIC PLUG FOR CRACK CONTROL (F)	51	51	51	153	LF
559.412	REPAIR ASPHALTIC PLUG EXPANSION JOINT (F)	51	51	51	153	LF
606.417	PORTABLE CONCRETE BARRIER FOR TRAFFIC CONTROL	460	390	610	1460	LF
606.41741	PORTABLE CONCRETE BARRIER FOR TRAFFIC CONTROL - BRIDGE	180	180	180	540	LF
606.9523	TEMP. IMPACT ATTENUATION DEVICE (NON-REDIRECTIVE), TEST LEVEL 3	2	2	2	6	U
616.171	PORTABLE TRAFFIC SIGNALS (PTS) SYSTEM	0.29	0.29	0.42	1	U
618.61	UNIFORMED OFFICERS WITH VEHICLE	*	*	*	*	\$
618.7	FLAGGERS MAINTENANCE OF TRAFFIC	330	340 0.33	330	1000 1	HR U
619.25	PORTABLE CHANGEABLE MESSAGE SIGNS	0.33	1	0.34	3	U
619.279	AUTOMATED TRAILER-MOUNTED SPEED LIMIT SIGN	2	1	1	4	U
619.52	PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS)	11	11	11	33	MON
628.2	SAWED BITUMINOUS PAVEMENT	102	102	102	306	LF
632.0104	RETROREFLECTIVE PAINT PAVE. MARKING, 4" LINE	960	960	960	2880	LF
632.1104	PREFORMED RETROREFLECTIVE TAPE, TYPE 1 (REMOVABLE) 4" LINE	2770	2455	2610	7835	LF
632.1118	PREFORMED RETROREFLECTIVE TAPE, TYPE 1 (REMOVABLE) 18" LINE	22	42	47	111	LF
632.1306	BLACKOUT PAVEMENT MARKING TAPE, TYPE 1 (REMOVABLE) 6" LINE	3090	2435	2795	8320	LF
670.104	TEMPORARY PORTABLE LIGHTING MOBILIZATION	0.33	2 0.33	2 0.34	6 1	U U
698.12	FIELD OFFICE TYPE B	4	<u> </u>	4	12	MON
699.	MISCELLANEOUS TEMPORARY EROSION AND SEDIMENT CONTROL	*	*	*	*	\$
1002.1	REPAIRS OR REPLACEMENTS AS NEEDED - BRIDGE STRUCTURES	*	*	*	*	\$
1010.15	FUEL ADJUSTMENT	*	*	*	*	\$
* NOT A B	I ID ITEM					<u> </u>

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NHDOT Bridge Design
8/7/23

SAMPLE PLAN

Details and notes may not be current.
Closely review before using details.

STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

BRIDGE NO.

BRIDGE NOTES AND QUANTITIES

REVISIONS AFTER PROPOSAL

DESTGNED

REVISIONS AFTER PROPOSAL

DESTGNED

REVISIONS AFTER PROPOSAL

DESTGNED

SMG 9/22 CHECKED

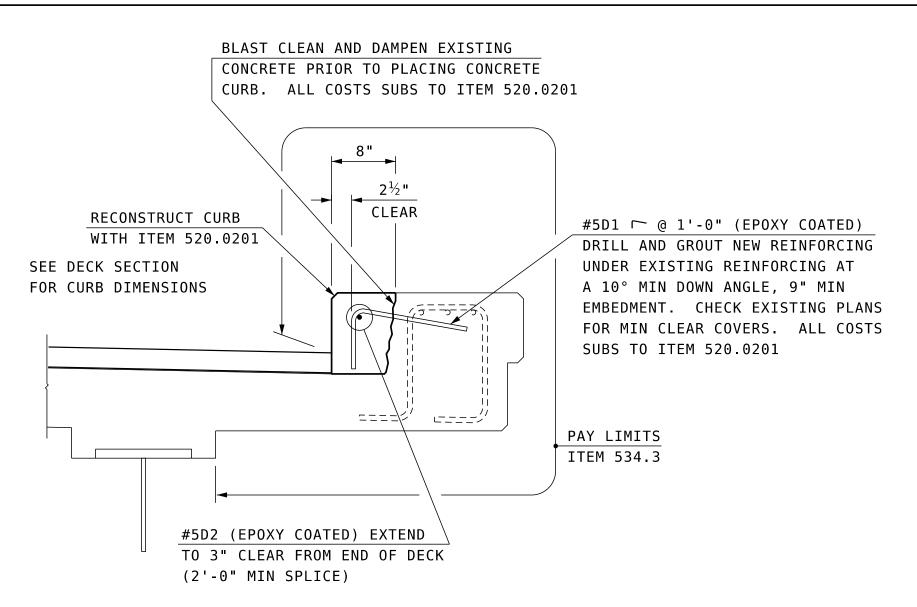
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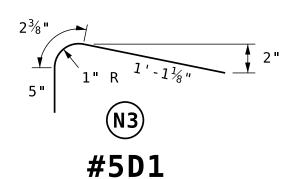
STATE PROJECT 44054

		DESIGNED	SMG	9/22	CHECKED	DLS	8/23	FILE NUMBER
		DRAWN	SMG	9/22	CHECKED	DLS	8/23] TEE NOMBER
		QUANTITIES	SMG	7/23	CHECKED	GMC	7/23	
ET SCALE		ISSUE DATE		EDERAL	. PROJECT	NO. SHE	ET NO.	TOTAL SHEETS
S NOTED		REV. DATE					5	18
	EET SCALE S NOTED	ET SCALE	ET SCALE	DRAWN SMG QUANTITIES SMG ET SCALE ISSUE DATE	DRAWN SMG 9/22 QUANTITIES SMG 7/23 ET SCALE ISSUE DATE FEDERAL	DRAWN SMG 9/22 CHECKED QUANTITIES SMG 7/23 CHECKED ISSUE DATE FEDERAL PROJECT	DRAWN SMG 9/22 CHECKED DLS QUANTITIES SMG 7/23 CHECKED GMC ISSUE DATE FEDERAL PROJECT NO. SHE	DRAWN SMG 9/22 CHECKED DLS 8/23 QUANTITIES SMG 7/23 CHECKED GMC 7/23 ET SCALE ISSUE DATE FEDERAL PROJECT NO. SHEET NO.

TOWN MARLBOROUGH



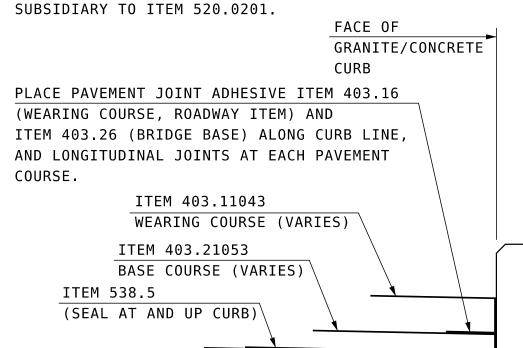
CURB RECONSTRUCTION



	BR NO 072/075								
MARK	SIZE	LENGTH	# PIECES	TYPE	LBS				
D1	#5	1'-8½"	67	N3	120				
D2	#5	24'-6"	3		77				
ITEM #	I	DESCRIPTION	N		TOTAL				
544.2	EPOXY COA	TED		#5	197				

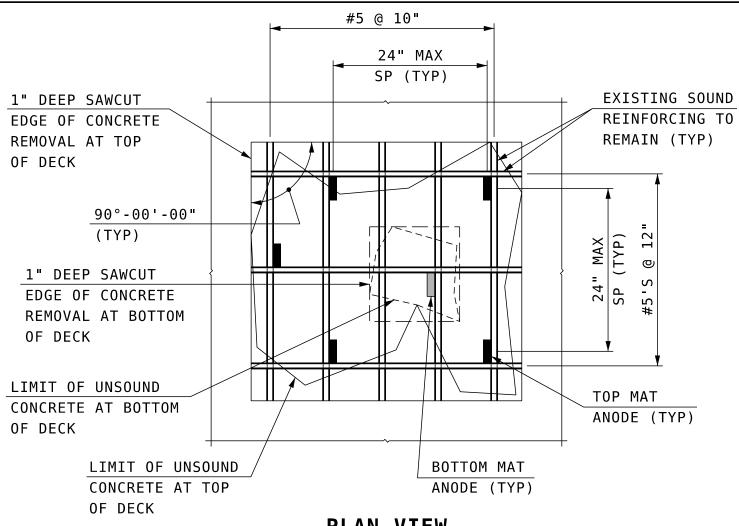
NOTES

- 1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET -STEEL BARS FOR CONCRETE REINFORCEMENT", AASHTO M 31-94 (ASTM A615).
- 2. FOR TYPICAL BENDING DETAILS, RECOMMENDED PIN DIAMETER "D" OF BENDS AND HOOKS AND OTHER STANDARD PRACTICE, SEE CURRENT (1990) CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE", P 6-4.
- 3. REMOVAL OF EXISTING GRANITE CURB, CURB ANCHORS, AND GROUT BEDS SHALL BE PAID UNDER ITEM 502.10X.
- 4. FOR BRIDGE GRANITE CURB AND DETERIORATED CONCRETE REMOVAL, SAWCUT EXISTING CONCRETE 1" DEEP ON ALL EXPOSED SURFACES TO PROVIDE CLEAN REMOVAL LINES. REMOVE EXISTING CONCRETE AS SHOWN IN THE PLANS. ALL COSTS TO BE INCLUDED IN ITEM 502.10X, REMOVAL OF EXISTING BRIDGE STRUCTURE.
- 5. UNLESS OTHERWISE NOTED, HOLES DRILLED INTO EXISTING CONCRETE SHALL BE DRILLED $rac{1}{2}$ " DIAMETER LARGER THAN THE BAR DIAMETER AND GROUTED WITH HIGH STRENGTH, NON-SHRINK CEMENTITIOUS GROUT (GROUT SHALL CONFORM TO SECTIONS 550 OR 609 OF THE QUALIFIED PRODUCTS LIST). ALL COSTS FOR DRILLING AND GROUTING SHALL BE

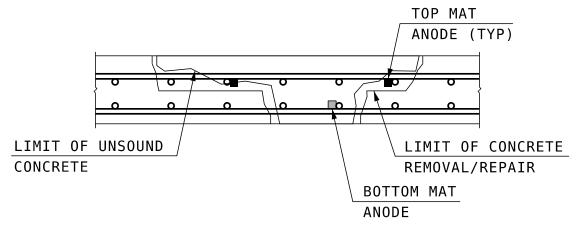


CURB DETAIL

SCALE $1\frac{1}{2}$ " = 1'-0"



PLAN VIEW

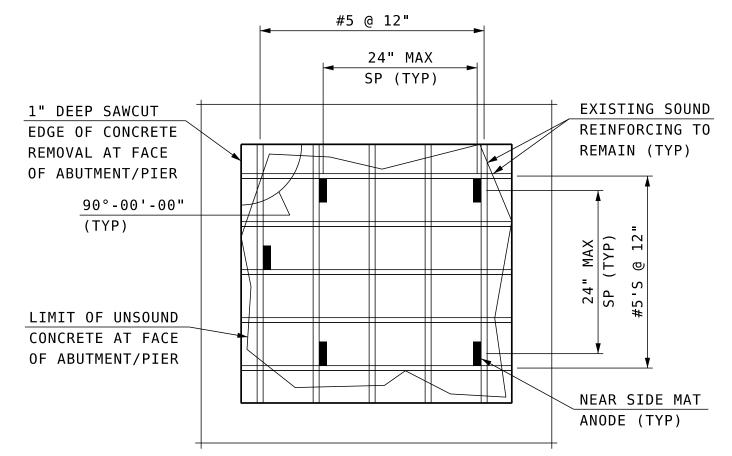


SECTION VIEW

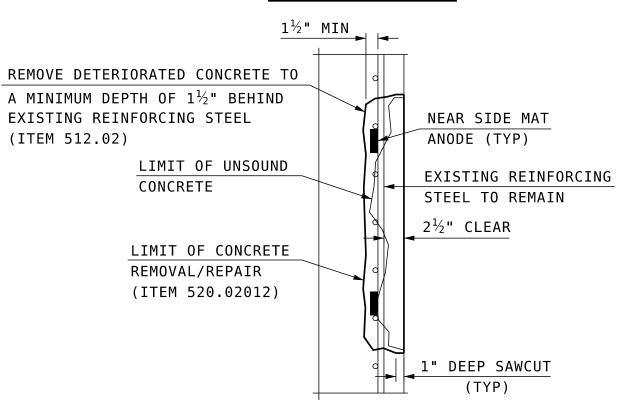
TYPICAL DISCRETE ANODE

PLACEMENT IN DECK

SCALE: 1'' = 1' - 0''



ELEVATION VIEW



SECTION VIEW

TYPICAL DISCRETE ANODE

SCALE: 1'' = 1' - 0''

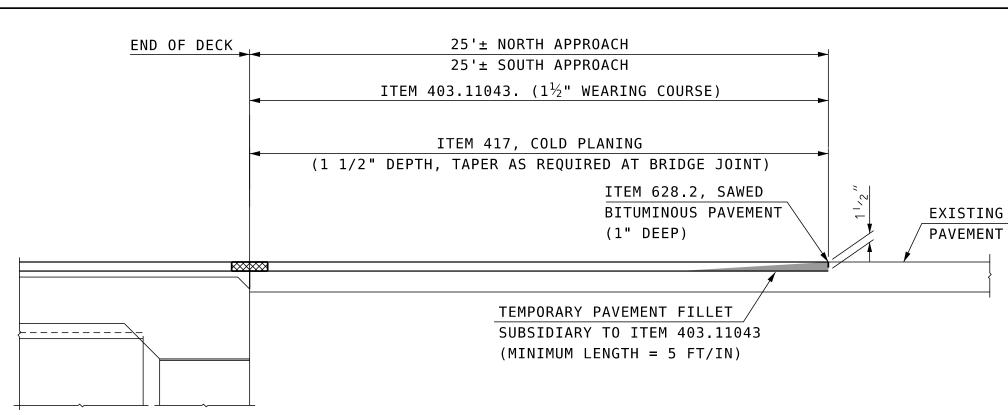
PLACEMENT IN ABUTMENT

NHDOT Bridge Design 8/7/23 SAMPLE PLAN Details and notes may not be current. Closely review before using details.

DISCRETE ANODE NOTES

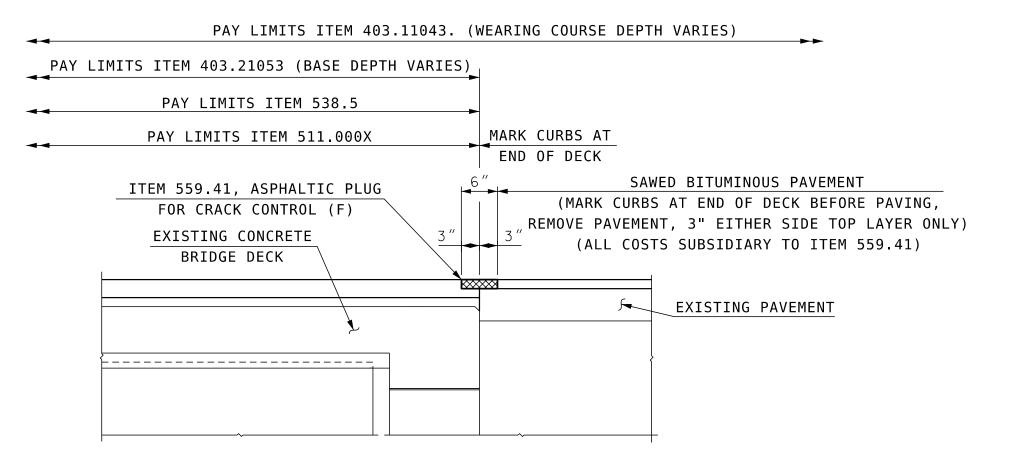
BRC\

- 1. LIMITS OF UNSOUND CONCRETE ARE TO BE DETERMINED BY THE ENGINEER.
- 2. DISCRETE ANODES SHALL BE PLACED AS REQUIRED AS SHOWN IN THE DETAIL. THE ANODES SHALL BE TIED TO THE EXISTING STEEL MATS. ALL COSTS SHALL BE INCLUDED IN ITEM 540.512.
- 3. SPACINO PERIME^{*} ABUTME



PAVEMENT MATCH DETAIL

BR NOS 113/078, 112/079, AND 133/115 NOT TO SCALE



ASPHALTIC PLUG CRACK CONTROL (FIXED END)

BR NOS 077/065, 072/075, AND 066/080 NOT TO SCALE

PAY LIMITS ITEM 403.11043 (WEARING COURSE DEPTH VARIES) PAY LIMITS ITEM 403.21053 (BASE DEPTH VARIES) PAY LIMITS ITEM 538.5 NOTE: GALVANIZED PLATE, LOCATING PIN, PAY LIMITS ITEM 511.000X AND BACKER ROD NOT REQUIRED. MARK CURBS AT END OF DECK SAWED BITUMINOUS PAVEMENT ITEM 559.412, REPAIR ASPHALTIC (MARK CURBS AT END OF DECK BEFORE PAVING, PLUG EXPANSION JOINT (F) REMOVE PAVEMENT, 10" EITHER SIDE TOP LAYER ONLY) EXISTING CONCRETE (ALL COSTS SUBSIDIARY TO ITEM 559.41) BRIDGE DECK **EXISTING PAVEMENT** ITEM 520.421, PLACE LEVEL W/TOP OF CONCRETE DECK EXISTING FLOWABLE FILL 1′-11″

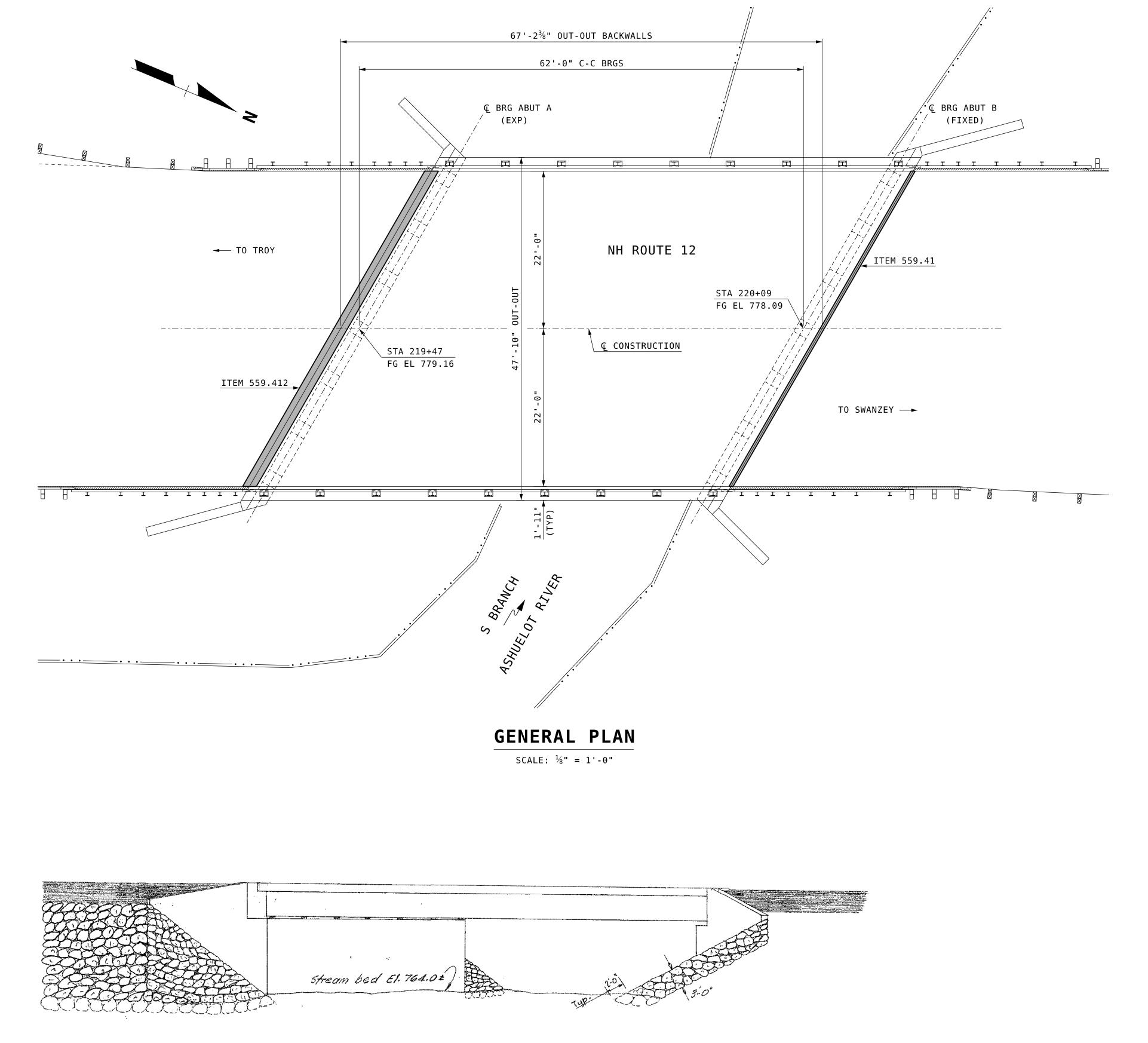
ASPHALTIC PLUG EXPANSION JOINT (EXPANSION END)

BR NOS 077/065, 072/075, AND 066/080 NOT TO SCALE

STATE OF NEW HAMPSHIRE **DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN** TOWN MARLBOROUGH STATE PROJECT 44054 BRIDGE NO. **VARIOUS**

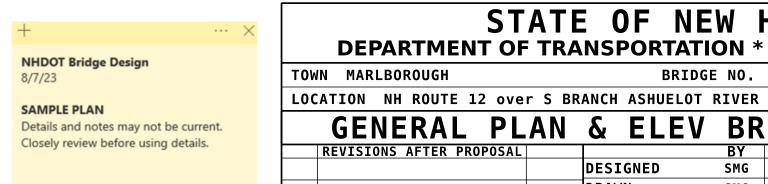
LOCATION NH ROUTE 12 over S BRANCH ASHUELOT RIVER MISCELLANEOUS BRIDGE DETAILS BRIDGE SHEET

					_		_						_	_	
SPACING OF D	ISCRETE ANODES AROUND	THE	REVIS	IONS AFTER PROPOSAL			BY	DATE		В	BY DAT	E	2	0F 8	
PERIMETER OF	THE CONCRETE DECK AN	D			<u> </u>	DESIGNED	SMG	9/22	CHECKED	D	LS 8/2	3 [FTIF	NUMBEI	╗┤╽
ABUTMENT REP	AIR AREA SHALL BE 24"	MAX.				DRAWN	SMG	9/22	CHECKED	D	LS 8/2	3 '	1	NONDE	,
						QUANTITIES	SMG	7/23	CHECKED	G	MC 7/2	3			
SUBDIRECTORY	.DGN LOCATOR	SHEET SCALE				ISSUE DATE		FEDERAL	PROJECT	NO.	SHEET N	ο. T	OTAL	SHEET	s
BRC\	44054 NOTES	AS NOTED				REV. DATE					6			18	



ELEVATION

SCALE: $\frac{1}{8}$ " = 1'-0"



.DGN LOCATOR

077-065 Genplan

SHEET SCALE

AS NOTED

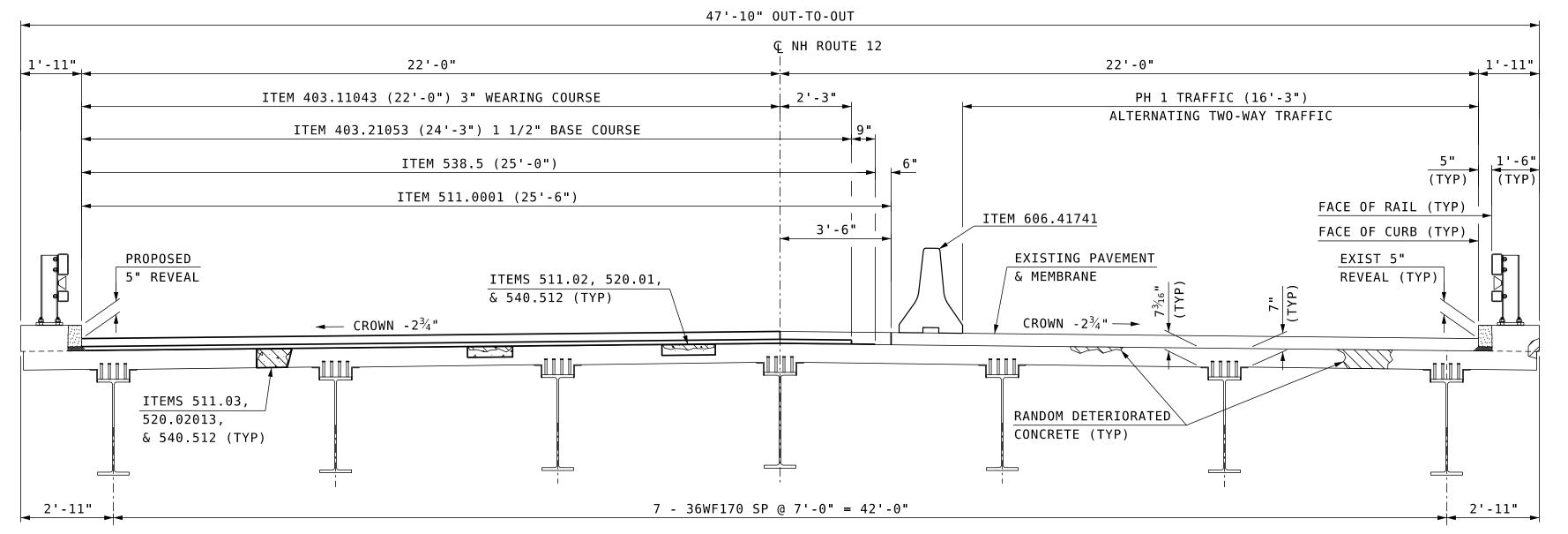
SUBDIRECTORY

BR NO 077-065

STATE	0F	NEW	HAMPSHIRE
DEPARTMENT OF TRAN	SPOR	TATION	* BUREAU OF BRIDGE DESIGN

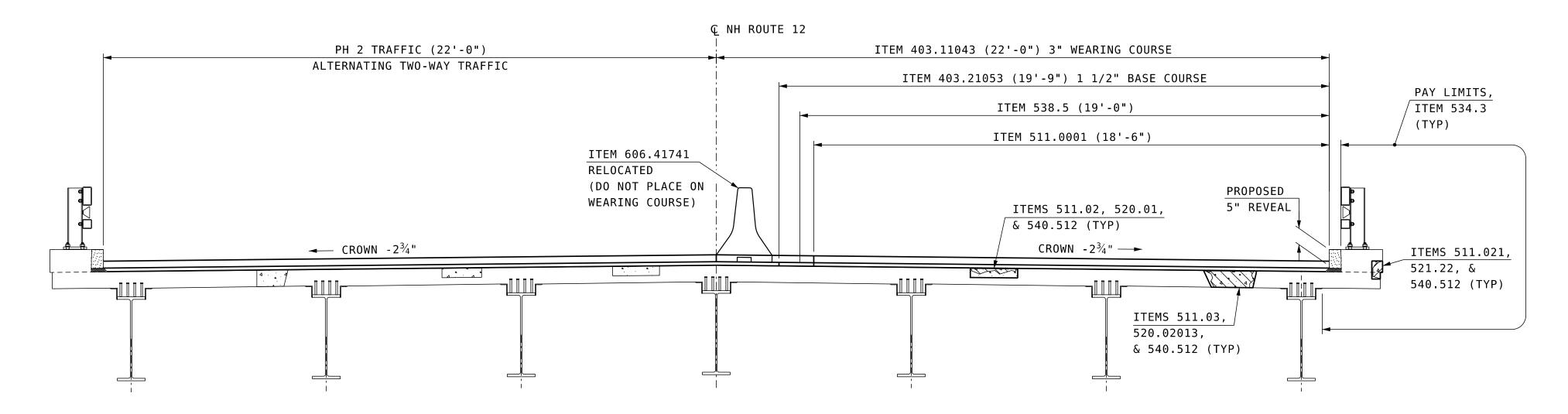
TOWN MARLBOROUGH BRIDGE NO. 077/065 STATE PROJECT 44054

	GENERAL PLAN	& ELE	V BI	R NO	077/(065	BRIDGE SHEET
L	REVISIONS AFTER PROPOSAL		ВҮ	DATE	_	BY DA	TE 3 0F 8
١		DESIGNED	SMG	9/22	CHECKED	DLS 8/	FILE NUMBER
r		DRAWN	SMG	9/22	CHECKED	DLS 8/	23 FILE NOMBER
f		QUANTITIES	SMG	7/23	CHECKED	GMC 7/	23
t		ISSUE DATE	XX/XX	FEDERAL	PROJECT NO.	SHEET N	NO. TOTAL SHEETS
		REV. DATE	XX/XX			7	18



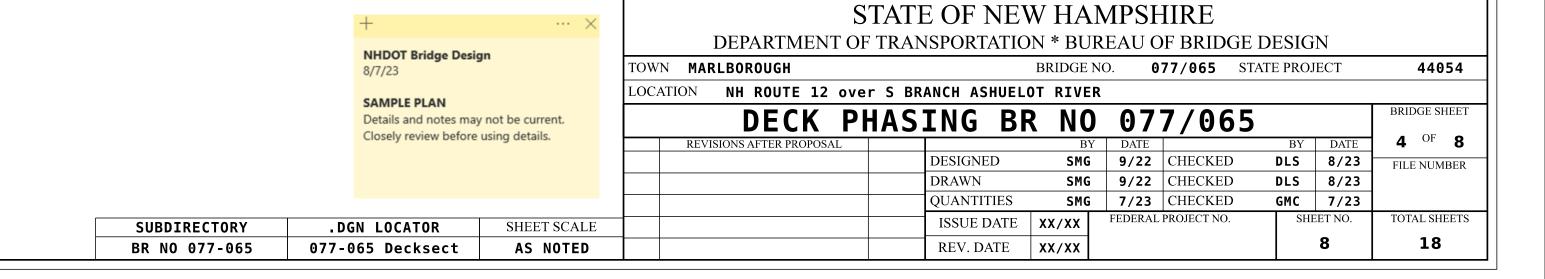
PHASE 1 CONSTRUCTION

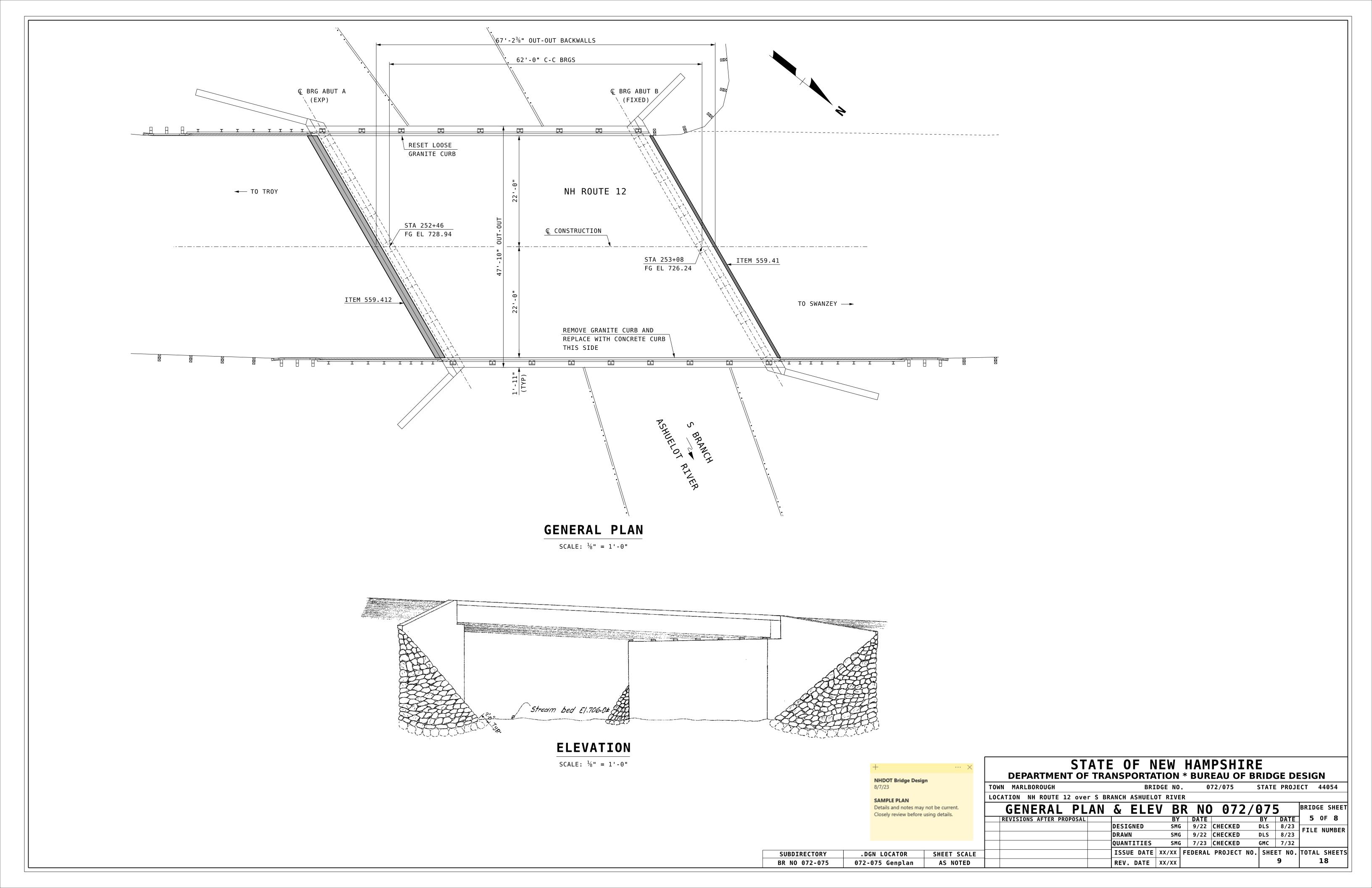
SCALE: $\frac{3}{8}$ " = 1'-0"

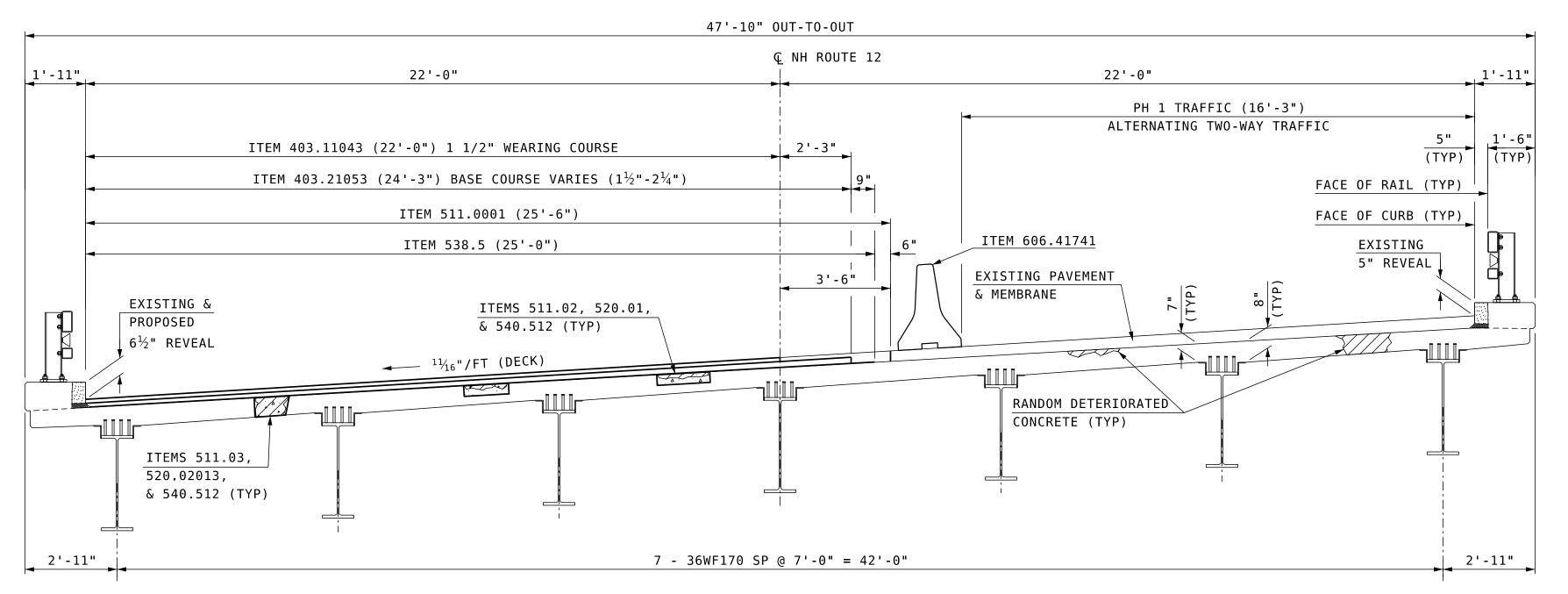


PHASE 2 CONSTRUCTION

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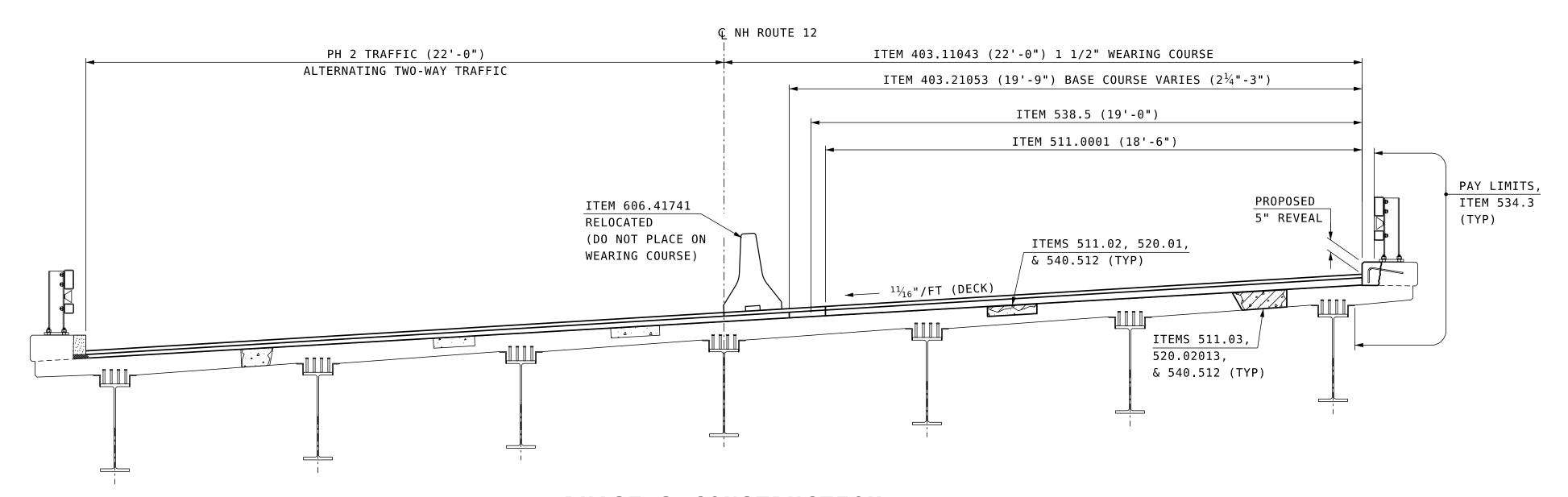






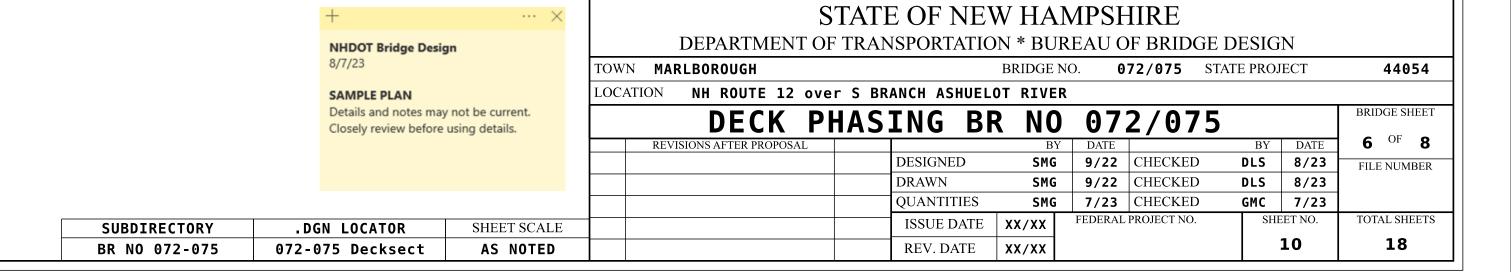
PHASE 1 CONSTRUCTION

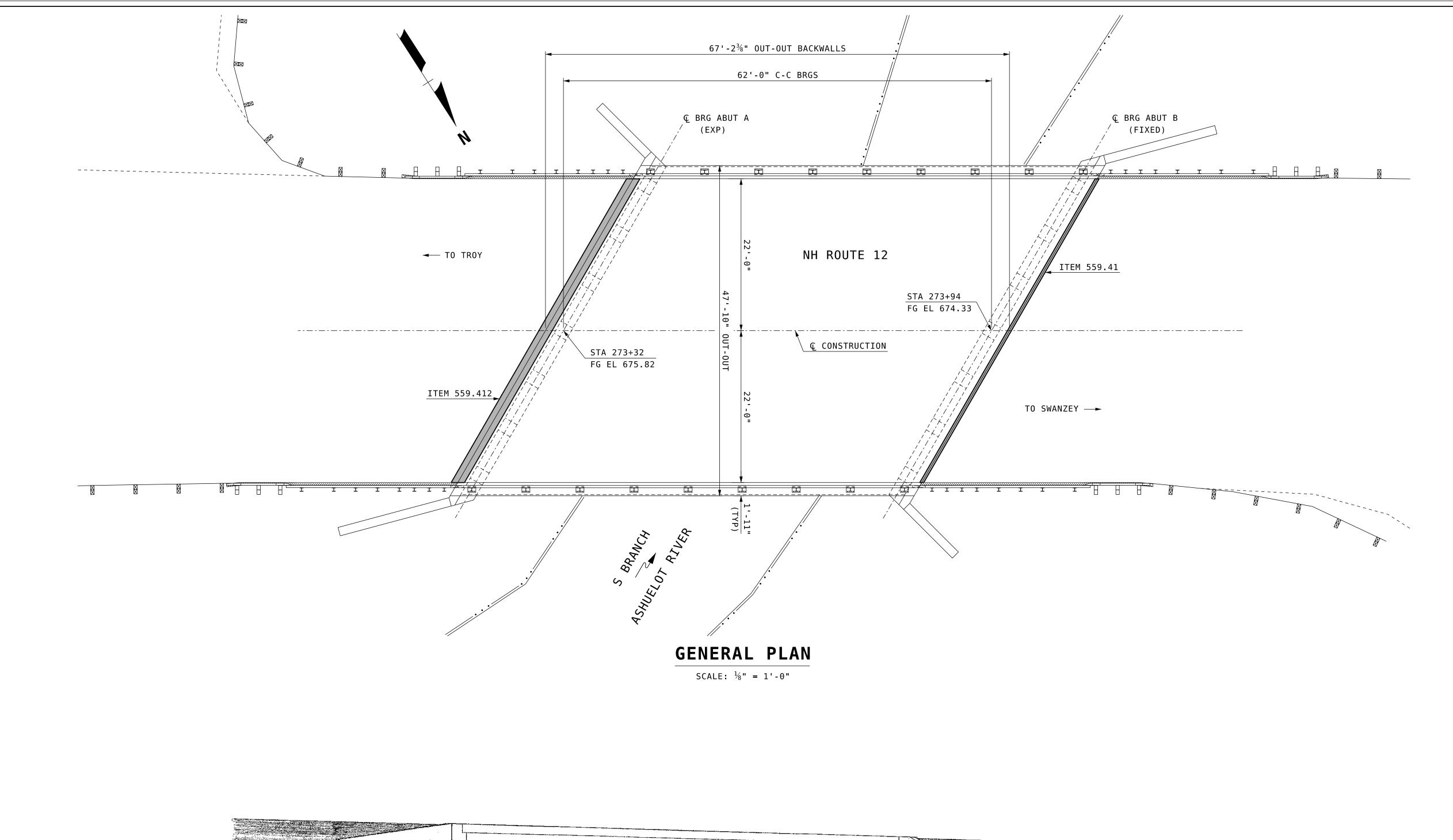
SCALE: $\frac{3}{8}$ " = 1'-0"

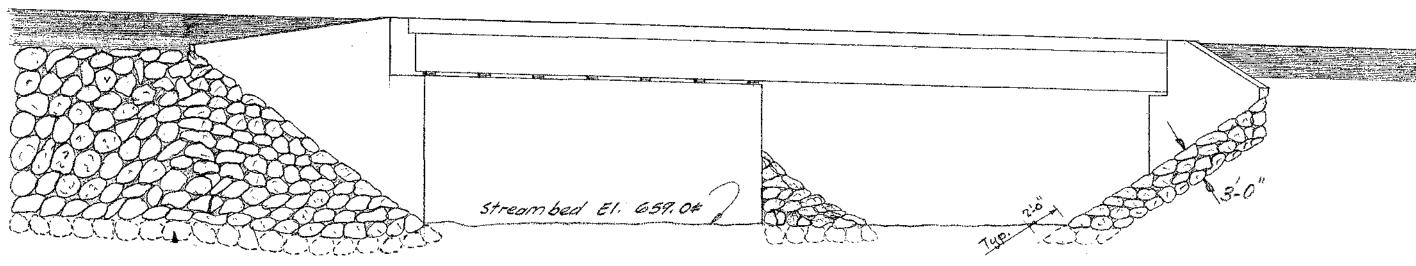


PHASE 2 CONSTRUCTION

SCALE: $\frac{3}{8}$ " = 1'-0"







ELEVATION SCALE: 1/8" = 1'-0"

NHDOT Bridge Design 8/7/23 SAMPLE PLAN Details and notes may not be current. Closely review before using details.

.DGN LOCATOR

066-080 Genplan

SHEET SCALE

AS NOTED

SUBDIRECTORY

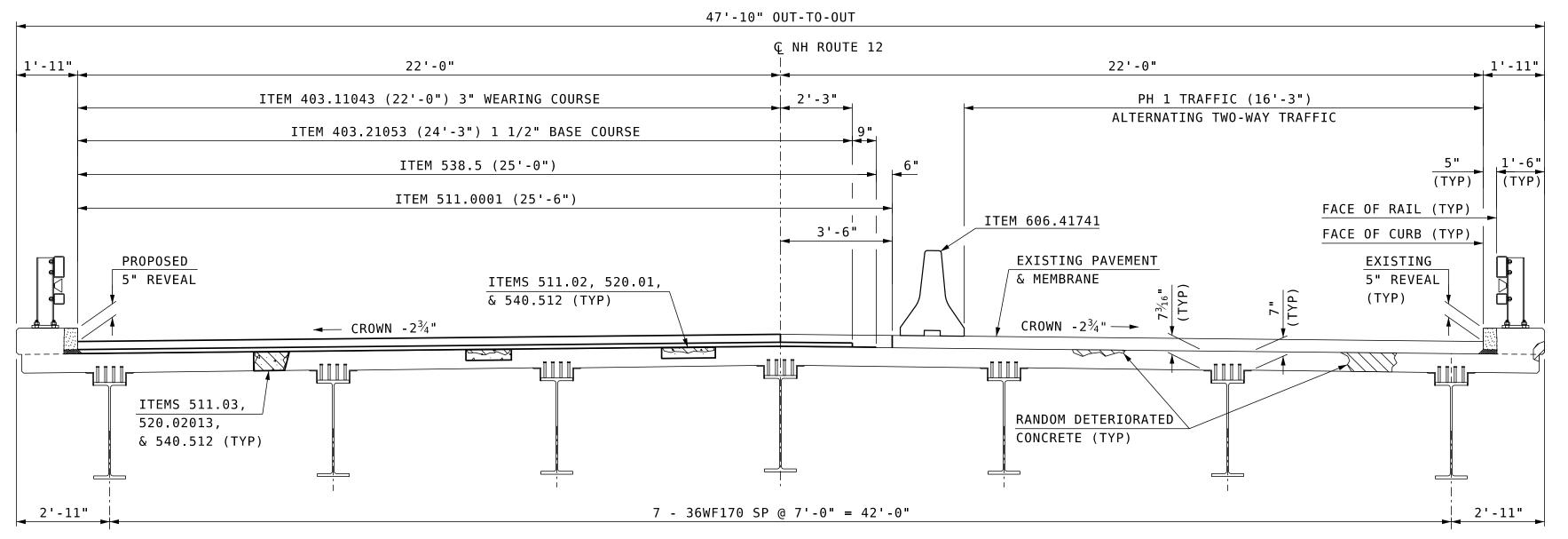
BR NO 066-080

STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION * BUREAU OF BRIDGE DESIGN

TOWN MARLBOROUGH BRIDGE NO. 066/080 STATE PROJECT 44054

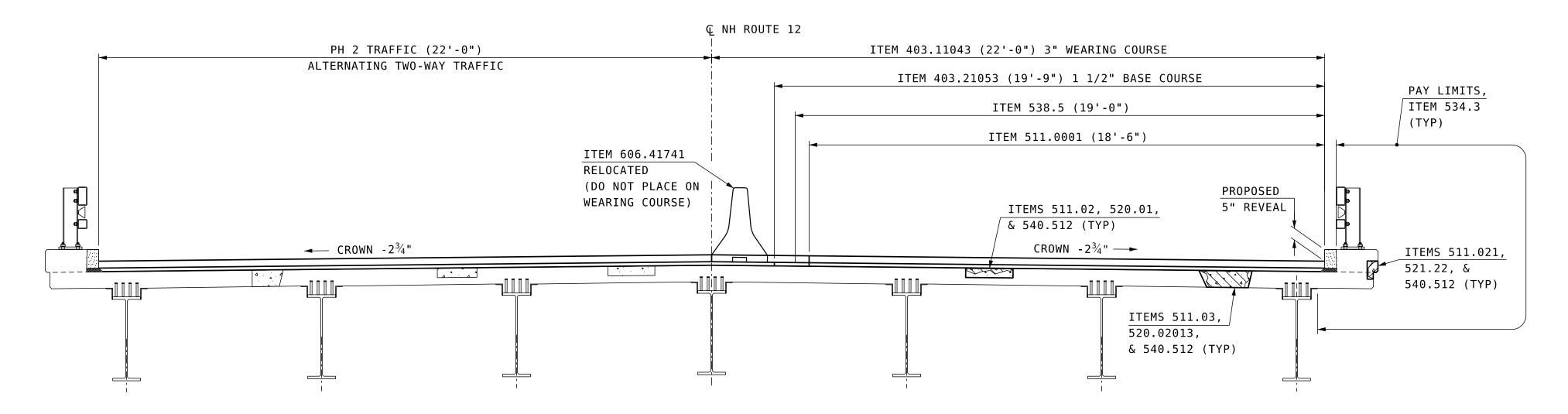
LOCATION NH ROUTE 12 over S BRANCH ASHUELOT RIVER

GENERAL PLAN	& ELE	V BF	R NO	066/0	980	BRIDGE SHEET
REVISIONS AFTER PROPOSAL		BY	DATE		BY DATE	7 0F 8
	DESIGNED	SMG	9/22	CHECKED	DLS 8/23	FILE NUMBER
	DRAWN	SMG	9/22	CHECKED	DLS 8/23	; TILL WONDER
	QUANTITIES	SMG	7/23	CHECKED	GMC 7/23	;
	ISSUE DATE	XX/XX	FEDERAL	PROJECT NO.	SHEET NO	. TOTAL SHEETS
	REV. DATE	XX/XX			11	18



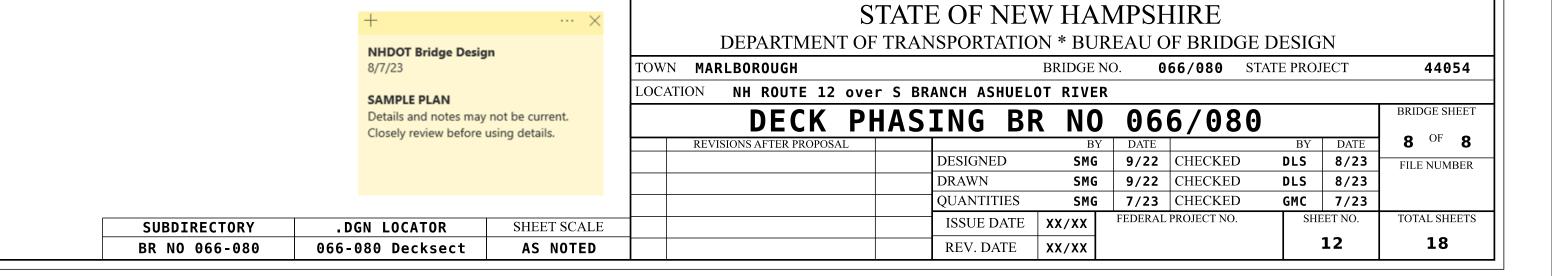
PHASE 1 CONSTRUCTION

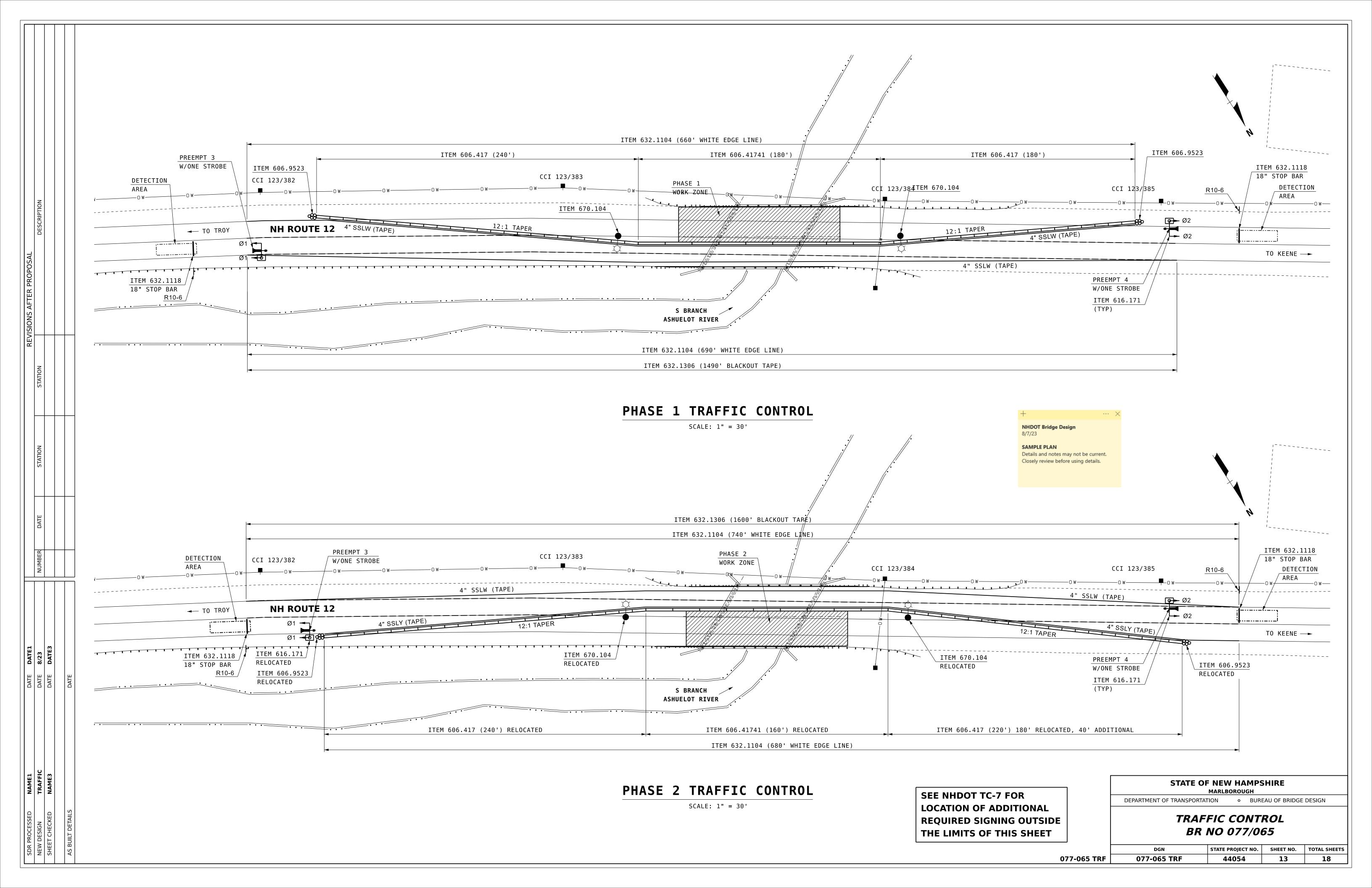
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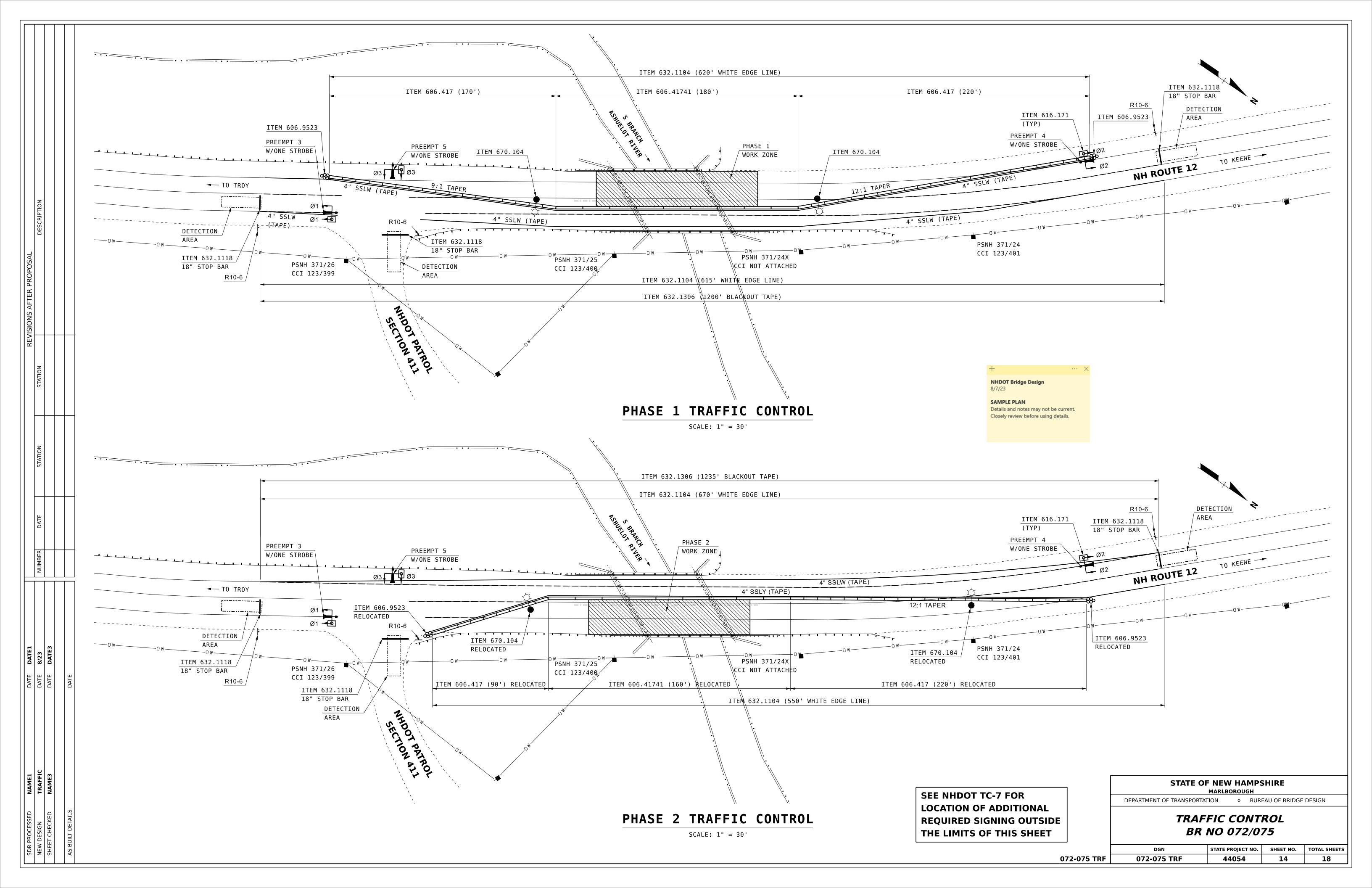


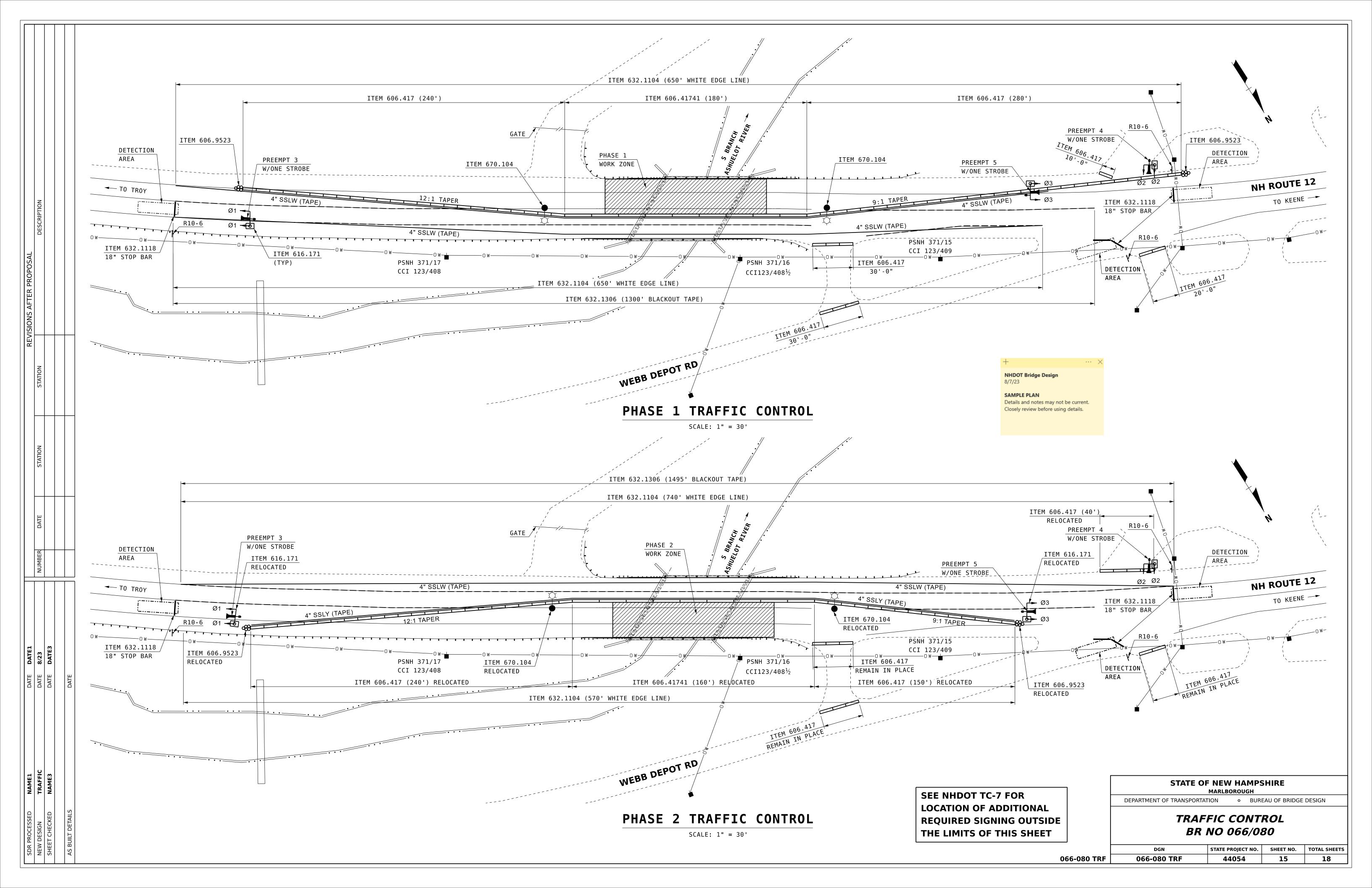
PHASE 2 CONSTRUCTION

SCALE: $\frac{3}{8}$ " = 1'-0"









				SIGNAL PHAS	SING	PH 1	
					Ф1	Ф2	
				TIMING IN SECONDS	→	~	
				INITIAL INTERVAL	10	10	
				VEHICLE EXTENSION	5	5	
				MAXIMUM I	30	30	
				MAXIMUM II			
				YELLOW	4	4	
				ALL RED	27	27	
				WALK/FLASH DON'T WALK			
				RECALL	SOFT	OFF	
	DESCRIPTION			DETECTOR	NL	NL	
	I RIP			FLASH	FR	FR	
REVISIONS AFTER PROPOSAL				SPEED OF 20 MPH	OR 30	FPS	
FTER				SIGNAL PHAS	SING	PH 1	
IS A					Ф1	Ф2	Ф3
REVISION				TIMING IN SECONDS	→	←	₩
				INITIAL INTERVAL	10	10	5
				VEHICLE EXTENSION	5	5	5
	STATION			MAXIMUM I	30	30	10
	S			MAXIMUM II			
				YELLOW	4	4	4
				ALL RED	25	25	3
				WALK/FLASH DON'T WALK			
				RECALL	SOF T	OFF	OFF
	NO I			DETECTOR	NL	NL	NL
I	IOI	1 1	ı				

FLASH

SIGNAL PHAS	SING	PH 2	
	Φ1	Ф2	Ф3
TIMING IN SECONDS	→	~	*
INITIAL INTERVAL	10	10	5
VEHICLE EXTENSION	5	5	5
MAXIMUM I	30	30	10
MAXIMUM II			
YELLOW	4	4	4
ALL RED	25	25	3
WALK/FLASH DON'T WALK			
RECALL	OFF	SOFT	OFF
DETECTOR	NL	NL	NL
FLASH	FR	FR	FR

RED CLEARANCE BASED ON A VEHICLE SPEED OF 20 MPH OR 30 FPS

SIGNAL PHASING PH 2

TIMING

ΙN

SECONDS

INITIAL INTERVAL

VEHICLE EXTENSION

WALK/FLASH DON'T WALK

MAXIMUM I MAXIMUM II

YELLOW ALL RED

RECALL

FLASH

DETECTOR

Ф1

10

30

27

NL

FR

 \rightarrow

Φ2

10

30

4

27

SOFT

NL

FR

RED CLEARANCE BASED ON A VEHICLE SPEED OF 20 MPH OR 30 FPS

SIGNAL PHAS	SING	PH 1	
	Ф1	Ф2	Ф3
TIMING IN SECONDS	→	*	+
INITIAL INTERVAL	10	10	10
VEHICLE EXTENSION	5	5	5
MAXIMUM I	30	15	30
MAXIMUM II			
YELLOW	4	4	4
ALL RED	27	3	27
WALK/FLASH DON'T WALK			
RECALL	SOFT	OFF	OFF
DETECTOR	NL	NL	NL
FLASH	FR	FR	FR

RED CLEARANCE BASED ON A VEHICLE

SPEED OF 20 MPH OR 30 FPS

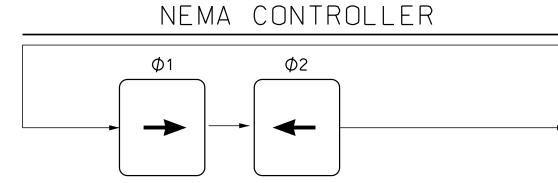
RED CLEARANCE BASED ON A VEHICLE SPEED OF 20 MPH OR 30 FPS

SIGNAL PHAS	SING	PH 2	
	Ф1	Ф2	Ф3
TIMING IN SECONDS	→	*	←
INITIAL INTERVAL	10	10	10
VEHICLE EXTENSION	5	5	5
MAXIMUM I	30	15	30
MAXIMUM II			
YELLOW	4	4	4
ALL RED	27	3	27
WALK/FLASH DON'T WALK			
RECALL	OF F	OFF	SOFT
DETECTOR	NL	NL	NL
FLASH	FR	FR	FR

RED CLEARANCE BASED ON A VEHICLE SPEED OF 20 MPH OR 30 FPS

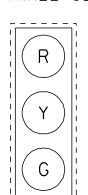
EMERGEN	CY PREEMPT
PREEMPT 3	CALLS Ø1
PREEMPT 4	CALLS Ø2

CALLS Ø1 CALLS Ø2
CALLO WZ



SIGNAL HEADS

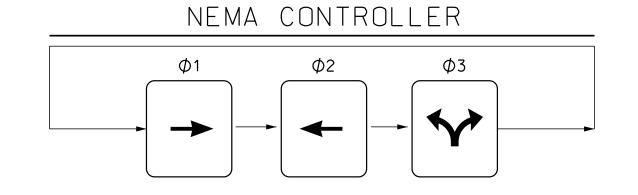
ALL LENSES 12" WITH 5" LOUVERED BACK PLATE. THE OUTSIDE PERIMETER OF THE BACKPLATE SHALL BE LINED WITH A FLUORESCENT-YELLOW 2-INCH STRIP OF TYPE IX OR XI RETROREFLECTIVE SHEETING TO HIGHLIGHT THE THREE-SECTION SIGNAL HEAD.



Ø1, 2, 3

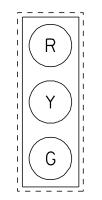
BR NO 077/065

EMERGEN	CY PREEMPT
PREEMPT 3	CALLS Ø1
PREEMPT 4	CALLS Ø2
PREEMPT 5	CALLS Ø3



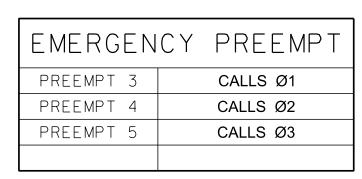
SIGNAL HEADS

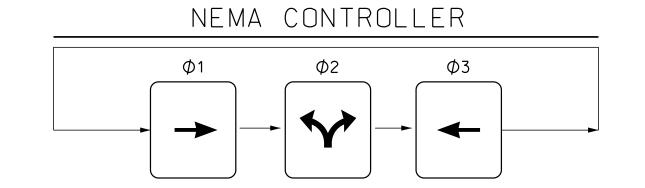
ALL LENSES 12" WITH 5" LOUVERED BACK PLATE. THE OUTSIDE PERIMETER OF THE BACKPLATE SHALL BE LINED WITH A FLUORESCENT-YELLOW 2-INCH STRIP OF TYPE IX OR XI RETROREFLECTIVE SHEETING TO HIGHLIGHT THE THREE-SECTION SIGNAL HEAD.



Ø1, 2, 3

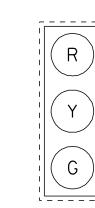
BR NO 072/075





SIGNAL HEADS

ALL LENSES 12" WITH 5" LOUVERED BACK PLATE. THE OUTSIDE PERIMETER OF THE BACKPLATE SHALL BE LINED WITH A FLUORESCENT-YELLOW 2-INCH STRIP OF TYPE IX OR XI RETROREFLECTIVE SHEETING TO HIGHLIGHT THE THREE-SECTION SIGNAL HEAD.



Ø1, 2, 3

BR NO 066/080

GENERAL NOTES

- 1. LOCATION OF EMERGENCY VEHICLE PREEMPTION RECEIVERS ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR, ENGINEER, AND THE MARLBOROUGH FIRE DEPARTMENT.
- 2. PREEMPTION SIGNAL SHALL BE SERVED ON A FIRST COME FIRST SERVE BASIS.
- 3. MINIMUM GREEN TIME AND NORMAL VEHICLE CLEARANCE TIMES SHALL BE PROVIDED ON PHASES THAT ARE TO BE TERMINATED BY PREEMPTION DEMAND.
- 4. TEMPORARY TRAILER MOUNTED TRAFFIC SIGNAL WILL BE PAID FOR UNDER ITEM 616.171, PORTABLE TRAFFIC SIGNALS (PTS) SYSTEM.

NHDOT Bridge Design 8/7/23 SAMPLE PLAN Details and notes may not be current. Closely review before using details.

STATE OF NEW HAMPSHIRE
MARLBOROUGH

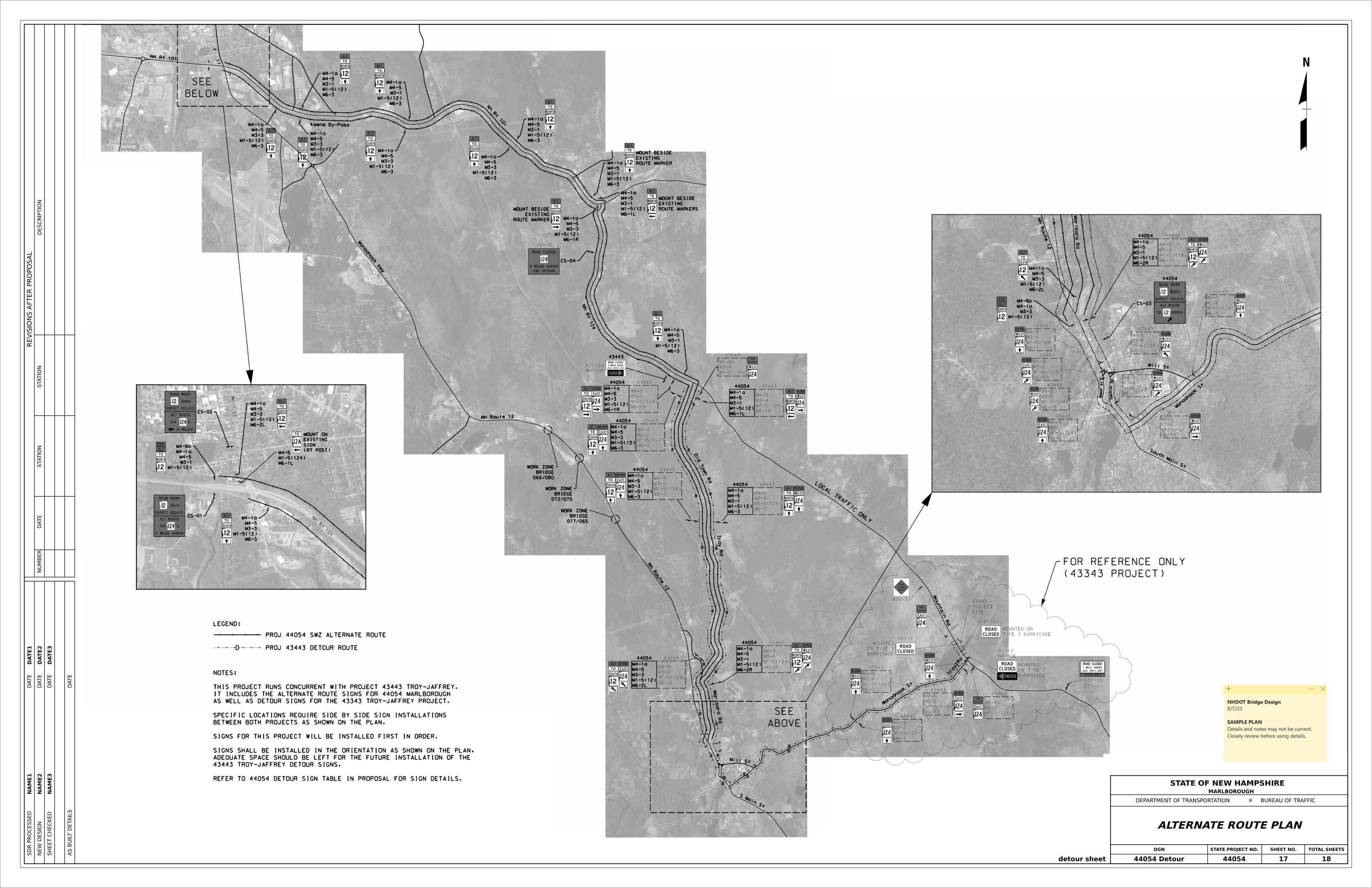
DEPARTMENT OF TRANSPORTATION

TEMPORARY SIGNAL TIMING

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
TIMING	44054	16	18

TIMING SHEET

BUREAU OF TRAFFIC



			44054 PERMA	NENT (CON	STF	RUCT	ION S	IGN T	ABLE		
		SIGN NO.	DESCRIPTION	SIZE (ft)	S.F.	NO. REQ.	TOTA AREA	POSTS	5	REMARKS		
		G20-2a	END ROAD WORK	2x4	8	2	16	4	BLACK	/FLUORESC	ENT ORANGE	
		G20-1e	ROAD WORK NEXT 2 MILES	3x6	18	2	36	4			ENT ORANGE	
		W20-1e	ROAD WORK 1/2 MILE	4x4	16	2	32	4	and the second	BLACK/FLUORESCENT ORANGE.		
		R4-11 R50-1	BICYCLE MAY USE FULL LANE NH LAW WORK ZONE	2.5x2.5 4x6	6.25	6	37.5 48	6	BLACK BLACK			
PROPOSAL DESCRIPTION		111 - 22 - 41 - 42 - 43 - 43 - 43 - 43 - 43 - 43 - 43	signs per section 619.1.2 and they "LOW SHOULDER" (W8-9). 44054 AL	1 1214111111								
									,DLL			
REVISIONS AFTER PROPOSAL	SIGN NO.		DESCRIPTION	SI	ZE (ft)	S.F.	100000000000000000000000000000000000000	TOTAL AREA	U- CHANNEL POSTS	4" OD ALUMINUM POSTS (BREAK -AWAY)	REMAR	
STATION STATION STATION	SIGN NO.	ROAD WORK NH 12 (SHIELD) SO EXPECT DELAYS ALT ROUTE NH124 (SHIELD) TO 4 MILES AHEAD			ZE (ft)	S.F .	NO. REQ.	TOTAL AREA	U- CHANNEL	ALUMINUM POSTS (BREAK -AWAY)		

	44054	ALTERNATE I	ROU	TE:	SIGN	TABLE		
SIGN NO.	DESCRIPTION	SIZE (ft)	S.F.	NO. REQ.	TOTAL AREA	U- CHANNEL POSTS	4" OD ALUMINUM POSTS (BREAK -AWAY)	REMARKS
	ROAD WORK					97 17 12		
CS-01	NH 12 (SHIELD) SOUTH EXPECT DELAYS ALT ROUTE NH124 (SHIELD) TO NH12 (SHIELD) S 4 MILES AHEAD	6x9	45	1	45			BLACK/WHITE/ORANGE (IF NEEDED). SEE CONSTRUCTION SIGN TEXT LAYOUT FOR DESIGN
CS-02	ROAD WORK NH12 (SHIELD) SOUTH EXPECT DELAYS ALT ROUTE NH124 (SHIELD) TO NH12 (SHIELD) S (LT ARROW) (4 MILES)	6x9	45	1	45		2	BLACK/WHITE/ORANGE (IF NEEDED). SEE CONSTRUCTION SIGN TEXT LAYOUT FOR DESIGN
CS-03	ROAD WORK NH12 (SHIELD) NORTH <u>EXPECT DELAYS</u> ALT ROUTE NH124 (SHIELD) TO NH12 (SHIELD) N (RT ARROW) @ 45°	6x9	45	1	45		2	BLACK/WHITE/ORANGE (IF NEEDED). SEE CONSTRUCTION SIGN TEXT LAYOUT FOR DESIGN
M1-5(12)	NH 12 (STATE ROUTE SHIELD)	2x2	4	24	96	24		BLACK/WHTE
M1-5(124)	NH 124 (STATE ROUTE SHIELD)	2x2	4	1	4			BLACK/WHTE MOUNT ON EXISTING SIGN POST (SEE PLAN)
M3-1	NORTH (CARDINAL DIRECTION)	1x2	2	11	22			BLACK/WHTE MOUNT BELOW M1-5(12)
M3-3	SOUTH (CARDINAL DIRECTION)	1x2	2	13	26			BLACK/WHTE MOUNT ABOVE M1-5(12)
M4-1a	ALT (ALTERNATE AUXILIARY)	1x2	2	24	48			BLACK/ORANGE MOUNT ABOVE M3-1, M3-3, M1-5(124
M4-5	TO (TO AUXILIARY)	1x2	2	24	48			BLACK/ORANGE MOUNT ABOVE M3-1, M3-3, M1-5(124
M6-1L	LEFT ARROW	1.2x1.75	2.19	3	6.57			BLACK/WHTE MOUNT BELOW M1-5(12), M-15(124)
M6-1R	RIGHT ARROW	1.2x1.75	2.19	2	4.38			BLACK/WHTE MOUNT BELOW M1-5(12)
M6-2R	RIGHT ARROW @ 45 DEG	1.2x1.75	2.19	2	4.38			BLACK/WHTE MOUNT BELOW M1-5(12)
M6-2L	LEFT ARROW @ 45 DEG	1.2x1.75	2.19	3	6.57			BLACK/WHTE MOUNT BELOW M1-5(12)
M6-3	UP ARROW	1.2x1.75	2.19	13	28.47			BLACK/WHTE MOUNT BELOW M1-5(12)

		SIG	N SIZE		TEXT D	IMENSIONS			i a i				PC	STS I	ER SI	GN	
TEM #	IDENT#	WIDTH (inch)	HEIGHT (inch)	TEXT		CR HEIGHT inch)	SHIELD SIZE (inch)	ARROW (inch)	NUMERAL (inch)	# SIGNS REQ'D		AREA . FT.) TOTAL AREA	BREAKAWAY	STEEL I-BEAM	4" OD ALUMINUM	U-CHANNEL-GALV.	REMARKS
619	CS-01	60	96	ROAD WORK 12 SOUTH EXPECT DELAYS ALT ROUTE 124 TO 12 S	6D 7D/6D 6C 6D 6C		18/18			1	40.00	40.00	х		2		BLACK/WHITE/ORANGE 1/2" BB GRADE EXTERIOR PLYWOOD
619	CS-02	60	96	ROAD WORK 12 SOUTH EXPECT DELAYS ALT ROUTE 124 TO 12 S	6C 6D 7D/6D 6C 6D 6C		18			ī	40.00	40.00	х		2		BLACK/WHITE/ORANGE 1/2" BB GRADE EXTERIOI PLYWOOD
619	CS-03	60	96	ROAD WORK 12 NORTH EXPECT DELAYS ALT ROUTE 124 TO 12 N	6C 6D 7D/6D 6C 6D 6C 6C		18/18	2.5x11.125 2.5x11.125 @45 deg		1	40.00	40.00	x		2		BLACK/WHITE/ORANGE 1/2" BB GRADE EXTERIOI PLYWOOD
0														нрот	Bridg	je Des	··· ×
													S/		and no	tes m	ay not be current. re using details.
REFER NOTE	NEW REFLE	016 STAND	EQUIREMENT	CATIONS FOR ROAD AND BRIE S IN THE 2016 STANDARD SP					т.								
REFER	TO THE 20	10 STAND	ARD PLANS F	OR ROAD CONSTRUCTION AS NHOOT SPECIFIC SIGNS.	PUBLISHED	BY THE NHD	OT FOR EX	ACT DETAILS	5								PSHIRE
			TION OF THE S	STANDARD HIGHWAY SIGNS N	MANUAL AS	PUBLISHED	BY THE USI	OOT-FHWA		D	EPARTME	NT OF TRA	ANSP	ORTA	TION	Bl	UREAU OF TRAFFIC
				SHALL BE FILISH WITH THE TO	D OF THE C	GN ON ALL	ACCEMBLIES					CO	VS'	TR	UC	TI	ON

EXCEL FILE NAME

5. THE ALUMINUM OR U-CHANNEL POST SHALL BE FLUSH WITH THE TOP OF THE SIGN ON ALL ASSEMBLIES.

SIGN INSTALLATIONS.

7. DIGITALLY PRINTED SIGNS SHALL NOT BE PERMITTED.

6. REFER TO 'ROUTE MARKER POST ASSEMBLY DETAIL' LOCATED IN THE PROPOSAL FOR SIDE BY SIDE ROUTE MARKER

CONSTRUCTION

SIGN TEXT LAYOUT

STATE PROJECT NO. FEDERAL PROJECT NO SHEET NO. TOTAL SHEETS