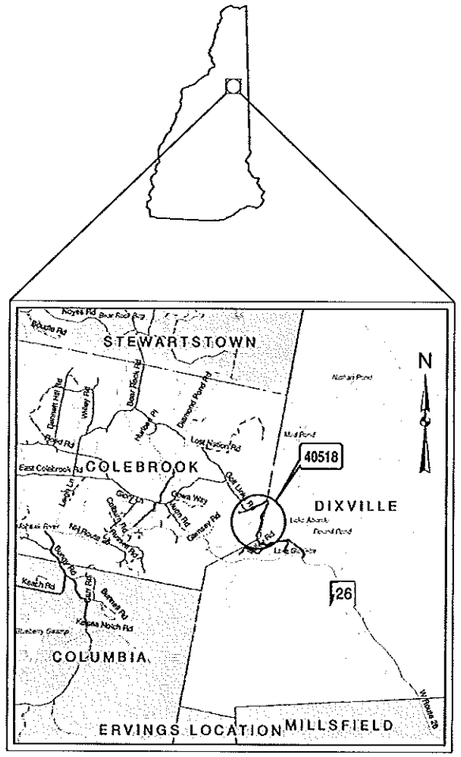
STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

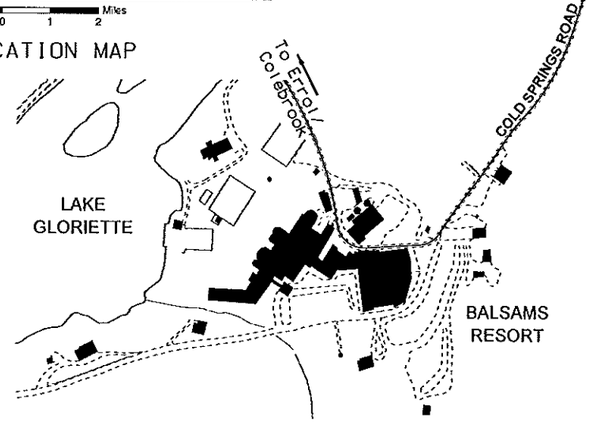
WETLANDS PLANS
FEDERAL AID PROJECT

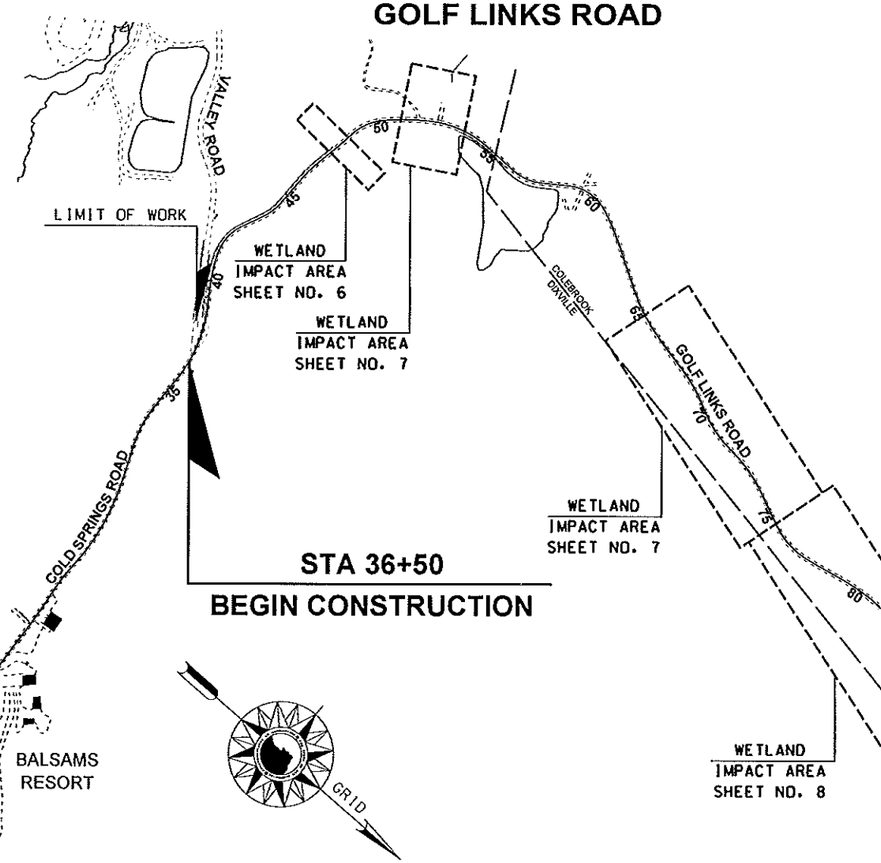
N.H. PROJECT NO. 40518
GOLF LINKS ROAD

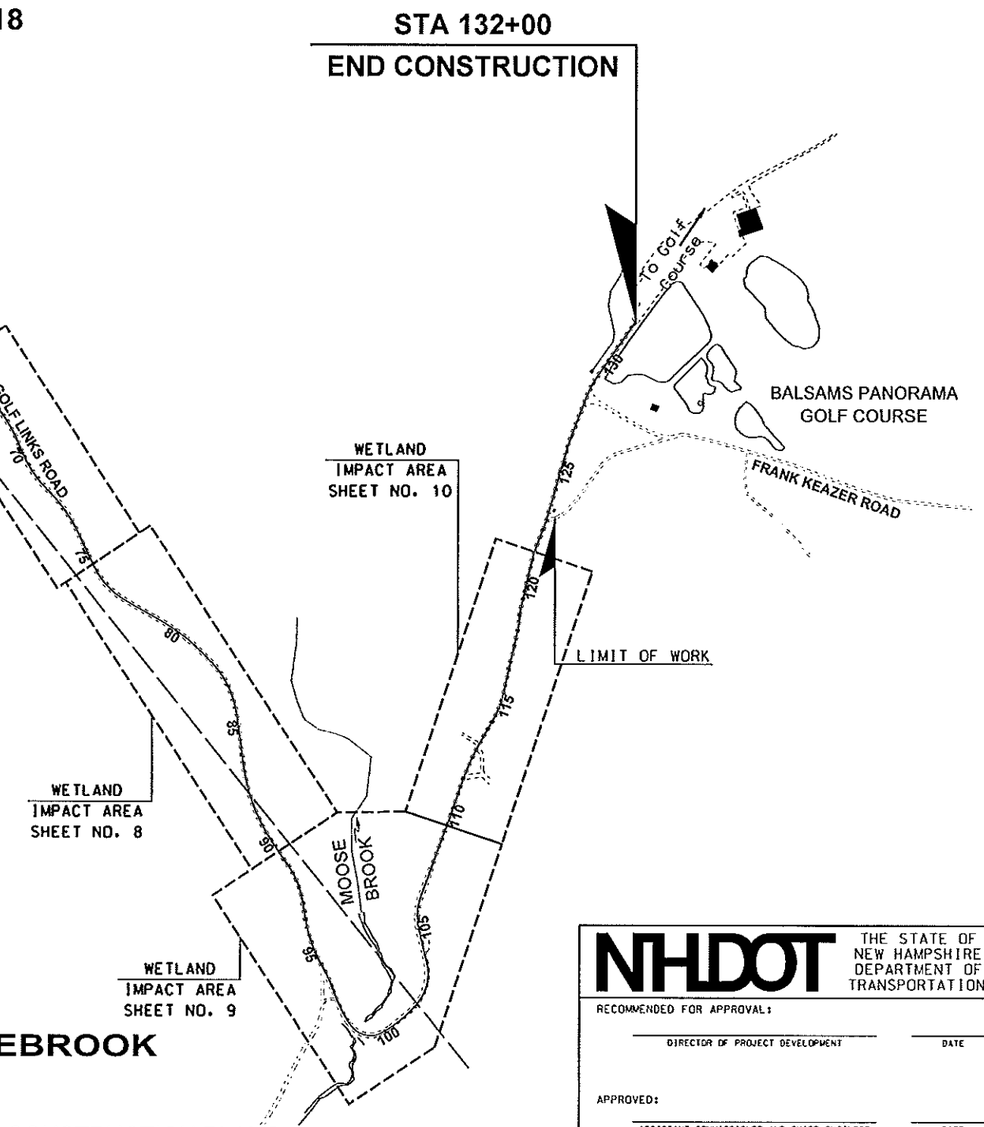
DESIGN DATA	
AVERAGE DAILY TRAFFIC 20 16	N/A
AVERAGE DAILY TRAFFIC 20 36	N/A
PERCENT OF TRUCKS	N/A
DESIGN SPEED	25 MPH
LENGTH OF PROJECT	1.8 MILES



LOCATION MAP







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DRAWN BY JAA DATE 02/2016
CHECKED BY MAB DATE 03/07/16

TOWN OF DIXVILLE & COLEBROOK

COUNTY OF COOS

SCALE: 1" =300'

FOR CONSTRUCTION AND ALIGNMENT DETAILS - SEE CONSTRUCTION PLANS

NHDOT THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

RECOMMENDED FOR APPROVAL:

DIRECTOR OF PROJECT DEVELOPMENT — DATE

APPROVED:

ASSISTANT COMMISSIONER AND CHIEF ENGINEER — DATE

FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
	40518	1	19

GENERAL

	PROPOSED ROADWAY	existing roadway	(pavement removed outside slope lines)
EDGE OF PAVEMENT			
TRAVELED WAY			

DRIVEWAYS — (label surface type)

BUILDINGS — (building to be removed) — (label house or type of building)

FOUNDATION — (label type)

LEACH FIELD — leach field

BRIDGE CROSSINGS — STREAM — OVERPASS

STEPS AND WALK — (label type)

INTERMITTENT WATER COURSE

SHORE LINE — river/stream — pond — (label name of water body)

POTENTIAL WET AREA SYMBOL

BRUSH OR WOODS LINE

TREES (PLANS) — (deciduous) (coniferous) (stump) — (show station, circumference in feet & type)

TREE OR STUMP (CROSS-SECTIONS)

HEDGE — (label type)

MONITORING WELL — mon

WELL

FLAG POLE — fp

ORIGINAL GROUND (TYPICALS)

ROCK OUTCROP

ROCK LINE (TYPICALS & SECTIONS ONLY)

	existing	PROPOSED
GUARDRAIL (label type)	bgr / cgr	
JERSEY BARRIER		
CURB (LABEL TYPE)		
STONE WALL		
RETAINING WALL (LABEL TYPE)		(points toward retained ground)
FENCE (LABEL TYPE)		

SIGNS — (single post) — (double post)

GAS PUMP — gp

FUEL TANK (ABOVE GROUND) — ft (label size & type)

STORAGE TANK FILLER CAP — fc

SEPTIC TANK — S

GRAVE — gr

MAILBOX — mb

VENT PIPE — vp

SATELLITE DISH ANTENNA — da

PHONE — ph

GROUND LIGHT/LAMP POST — gl lp

BORING LOCATION — B

TEST PIT — TP

INTERSTATE NUMBERED HIGHWAY — 293

UNITED STATES NUMBERED HIGHWAY — 3

STATE NUMBERED HIGHWAY — 102

SHORELAND - WETLAND

WETLAND DESIGNATION AND TYPE — 2 PUB2E

DELINEATED WETLAND — DW
ORDINARY HIGH WATER — OHW
TOP OF BANK — TOB
TOP OF BANK & ORDINARY HIGH WATER — TOBOHW
NORMAL HIGH WATER — NHW
WIDTH AT BANK FULL — WBF
PRIME WETLAND — PWET
PRIME WETLAND 100' BUFFER — PWET100
NON-JURISDICTIONAL DRAINAGE AREA — NJDA
COWARDIN DISTINCTION LINE — CDL
TIDAL BUFFER ZONE — TBZ
DEVELOPED TIDAL BUFFER ZONE — DTBZ
HIGHEST OBSERVABLE TIDE LINE — HOTL
MEAN HIGH WATER — MHW
MEAN LOW WATER — MLW
VERNAL POOL — VP
SPECIAL AQUATIC SITE — SAS
REFERENCE LINE — REF
WATER FRONT BUFFER — WBS0
NATURAL WOODLAND BUFFER — NWB150
PROTECTED SHORELAND — PS250
INVASIVE SPECIES LABEL — I.S. I — I.S. II
INVASIVE SPECIES — INV

FLOODPLAIN / FLOODWAY

500 YEAR FLOODPLAIN BOUNDARY — FP500
100 YEAR FLOODPLAIN BOUNDARY — FP100
FLOODWAY — FW

ENGINEERING

CONSTRUCTION BASELINE — 30 31 32

PC, PT, POT (ON CONST BASELINE)

PI (IN CONSTRUCTION BASELINES)

INTERSECTION OR EQUATION OF TWO LINES

ORIGINAL GROUND LINE (PROFILES AND CROSS-SECTIONS)

PROFILE GRADE LINE (PROFILES AND CROSS-SECTIONS)

CLEARING LINE — SLOPE LINE — CLEARING LINE

SLOPE LINE

SLOPE LINE (FILL)

SLOPE LINE (CUT)

PROFILES AND CROSS SECTIONS:
ORIGINAL GROUND ELEVATION (LEFT) — 72.5
FINISHED GRADE ELEVATION (RIGHT) — 79.14

SHEET 1 OF 2

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

STANDARD SYMBOLS

REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
11-21-2014	stdsymb1_2	40518	2	19

DRAINAGE

MANHOLE	d	
CATCH BASIN	cb	(existing) / (PROPOSED)
DROP INLET	di	
DRAINAGE PIPE (existing)		(label size & type)
DRAINAGE PIPE (PROPOSED)		
UNDERDRAIN (existing) W/ FLUSHING BASIN	fb	(label size & type)
UNDERDRAIN (PROPOSED) W/ FLUSHING BASIN		
HEADER (existing & PROPOSED)		(with stone outlet protection)
END SECTION (existing & PROPOSED)		METAL or PLASTIC; RCP
OPEN DITCH (PROPOSED)		
EROSION CONTROL/ STONE SLOPE PROTECTION		

show direction of flow

BOUNDARIES / RIGHT-OF-WAY

RIGHT-OF-WAY LINE	(label type)
RR RIGHT-OF-WAY LINE	
PROPERTY LINE	
PROPERTY LINE (COMMON OWNER)	Z
TOWN LINE	BOW / CONCORD
COUNTY LINE	COOS / GRAFTON
STATE LINE	MAINE / NEW HAMPSHIRE
NATIONAL FOREST	
CONSERVATION LAND	LC
BENCH MARK / SURVEY DISK	
BOUND	bnd (PROPOSED)
STATE LINE/ TOWN LINE MONUMENT	S/L T/L
NHDOT PROJECT MARKER	
IRON PIPE OR PIN	ip
DRILL HOLE IN ROCK	dh
TAX MAP AND LOT NUMBER	156 / 14 — 1642/341 — 6.80 Ac.±
PROPERTY PARCEL NUMBER	12
HISTORIC PROPERTY	H

UTILITIES

	existing	PROPOSED
TELEPHONE POLE		
POWER POLE		
JOINT OCCUPANCY		
MISCELLANEOUS/UNKNOWN POLE		
GUY POLE OR PUSH BRACE		
LIGHT POLE		
LIGHT ON POWER POLE		
LIGHT ON JOINT POLE		

(plot point at face not center of symbol)

POLE STATUS:
REMOVE, LEAVE, PROPOSED, OR TEMPORARY AS APPLICABLE e.g.:

R L P+04 25.0' T+04 25.0'

RAILROAD	(label ownership)	
RAILROAD SIGN		
RAILROAD SIGNAL		
UTILITY JUNCTION BOX	jb	JB
OVERHEAD ELECTRIC	OE	OE

UNDERGROUND UTILITIES

WATER (on existing lines label size, type and note if abandoned)	W	PW
SEWER	S	PS
TELEPHONE	T	PT
ELECTRIC	E	PE
GAS	G	PG
LIGHTING	L	PL
INTELLIGENT TRANSPORTATION SYSTEM	ITS	PITS
FIBER OPTIC	FO	PFO
WATER SHUT OFF	WSO	WSO
GAS SHUT OFF	GSO	GSO
HYDRANT	hyd	HYD

MANHOLES

SEWER	S	MHS
TELEPHONE	T	MHT
ELECTRICAL	E	MHE
GAS	G	MHG
UNKNOWN	U	

TRAFFIC SIGNALS / ITS

	existing	PROPOSED
MAST ARM (existing)		30' MA (NOTE ANGLE FROM ℄)
OPTICOM RECEIVER		
OPTICOM STROBE		
TRAFFIC SIGNAL		
PEDESTAL WITH PEDESTRIAN SIGNAL HEADS AND PUSH BUTTON UNIT		
SIGNAL CONDUIT	C	PC
CONTROLLER CABINET	cc	CC
METER PEDESTAL	mp	MP
PULL BOX	pb	PB
LOOP DETECTOR (QUADRUPOLE)		(label size)
LOOP DETECTOR (RECTANGULAR)		(label size)
CAMERA POLE (CCTV)		
FIBER OPTIC DELINEATOR	fod	FOD
FIBER OPTIC SPLICE VAULT	f	SVF
ITS EQUIPMENT CABINET	its	ITS
VARIABLE SPEED LIMIT SIGN		
DYNAMIC MESSAGE SIGN		
ROAD AND WEATHER INFO SYSTEM		

CONSTRUCTION NOTES

CURB MARK NUMBER - BITUMINOUS	B-1
CURB MARK NUMBER - GRANITE	G-1
CLEARING AND GRUBBING AREA	A
DRAINAGE NOTE	1
EROSION CONTROL NOTE	A
FENCING NOTE	A
GUARDRAIL NOTE	1
ITS NOTE	1
LIGHTING NOTE	A
TRAFFIC SIGNAL NOTE	1

SHEET 2 OF 2

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

STANDARD SYMBOLS

REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
11-21-2014	stdsymb1_2	40518	3	19

EROSION CONTROL STRATEGIES

1. ENVIRONMENTAL COMMITMENTS:
   1.1. THESE GUIDELINES DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH ANY CONTRACT PROVISIONS, OR APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
   1.2. THIS PROJECT WILL BE SUBJECT TO THE US EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER CONSTRUCTION GENERAL PERMIT AS ADMINISTERED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THIS PROJECT IS SUBJECT TO REQUIREMENTS IN THE MOST RECENT CONSTRUCTION GENERAL PERMIT (CGP).
   1.3. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE NHDES WETLAND PERMIT, THE US ARMY CORPS OF ENGINEERS PERMIT, WATER QUALITY CERTIFICATION AND THE SPECIAL ATTENTION ITEMS INCLUDED IN THE CONTRACT DOCUMENTS.
   1.4. ALL STORM WATER, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION (DECEMBER 2008) (BMP MANUAL) AVAILABLE FROM THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES (NHDES).
   1.5. THE CONTRACTOR SHALL COMPLY WITH RSA 485-A:17, AND ALL, PUBLISHED NHDES ALTERATION OF TERRAIN ENV-WQ 1500 REQUIREMENTS (HTTP://DES.NH.GOV/ORGANIZATION/COMMISSIONER/LEGAL/RULES/INDEX.HTM)
   1.6. THE CONTRACTOR IS DIRECTED TO REVIEW AND COMPLY WITH SECTION 107.1 OF THE CONTRACT AS IT REFERS TO SPILLAGE, AND ALSO WITH REGARDS TO EROSION, POLLUTION, AND TURBIDITY PRECAUTIONS.

2. STANDARD EROSION CONTROL SEQUENCING APPLICABLE TO ALL CONSTRUCTION PROJECTS:
   2.1. PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH DISTURBING ACTIVITIES. PERIMETER CONTROLS AND STABILIZED CONSTRUCTION EXITS SHALL BE INSTALLED AS SHOWN IN THE BMP MANUAL AND AS DIRECTED BY THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARER.
   2.2. EROSION, SEDIMENTATION CONTROL MEASURES AND INFILTRATION BASINS SHALL BE CLEANED, REPLACED AND AUGMENTED AS NECESSARY TO PREVENT SEDIMENTATION BEYOND PROJECT LIMITS THROUGHOUT THE PROJECT DURATION.
   2.3. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT AND SECTION 645 OF THE NHDOT SPECIFICATIONS FOR ROAD AND BRIDGES CONSTRUCTION.
   2.4. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
      (A) BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
      (B) A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
      (C) A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP-RAP HAS BEEN INSTALLED;
      (D) TEMPORARY SLOPE STABILIZATION CONFORMING TO TABLE 1 HAS BEEN PROPERLY INSTALLED
   2.5. ALL STOCKPILES SHALL BE CONTAINED WITH A PERIMETER CONTROL. IF THE STOCKPILE IS TO REMAIN UNDISTURBED FOR MORE THAN 14 DAYS, MULCHING WILL BE REQUIRED.
   2.6. A WATER TRUCK SHALL BE AVAILABLE TO CONTROL EXCESSIVE DUST AT THE DIRECTION OF THE CONTRACT ADMINISTRATOR.
   2.7. TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL REMAIN UNTIL THE AREA HAS BEEN PERMANENTLY STABILIZED.
   2.8. CONSTRUCTION PERFORMED ANY TIME BETWEEN NOVEMBER 30" AND MAY 1" OF ANY YEAR SHALL BE CONSIDERED WINTER CONSTRUCTION AND SHALL CONFORM TO THE FOLLOWING REQUIREMENTS.
      (A) ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15", OR WHICH ARE DISTURBED AFTER OCTOBER 15", SHALL BE STABILIZED IN ACCORDANCE WITH TABLE 1.
      (B) ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15", OR WHICH ARE DISTURBED AFTER OCTOBER 15", SHALL BE STABILIZED TEMPORARILY WITH STONE OR IN ACCORDANCE WITH TABLE 1.
      (C) AFTER NOVEMBER 30" INCOMPLETE ROAD SURFACES, WHERE WORK HAS STOPPED FOR THE SEASON, SHALL BE PROTECTED IN ACCORDANCE WITH TABLE 1.
      (D) WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE PROJECT IS WITHOUT STABILIZATION AT ONE TIME, UNLESS A WINTER CONSTRUCTION PLAN HAS BEEN APPROVED BY NHDOT THAT MEETS THE REQUIREMENTS OF ENV-WQ 1505.02 AND ENV-WQ 1505.05.
      (E) A SWPPP AMENDMENT SHALL BE SUBMITTED TO THE DEPARTMENT, FOR APPROVAL, ADDRESSING COLD WEATHER STABILIZATION (ENV-WQ 1505.05) AND INCLUDING THE REQUIREMENTS OF NO LESS THAN 30 DAYS PRIOR TO THE COMMENCEMENT OF WORK SCHEDULED AFTER NOVEMBER 30".

GENERAL CONSTRUCTION PLANNING AND SELECTION OF STRATEGIES TO CONTROL EROSION AND SEDIMENT ON HIGHWAY CONSTRUCTION PROJECTS

3. PLAN ACTIVITIES TO ACCOUNT FOR SENSITIVE SITE CONDITIONS:
   3.1. CLEARLY FLAG AREAS TO BE PROTECTED IN THE FIELD AND PROVIDE CONSTRUCTION BARRIERS TO PREVENT TRAFFICKING OUTSIDE OF WORK AREAS.
   3.2. CONSTRUCTION SHALL BE SEQUENCED TO LIMIT THE DURATION AND AREA OF EXPOSED SOILS.
   3.3. PROTECT AND MAXIMIZE EXISTING NATIVE VEGETATION AND NATURAL FOREST BUFFERS BETWEEN CONSTRUCTION ACTIVITY AND SENSITIVE AREAS.
   3.4. WHEN WORK IS PERFORMED IN AND NEAR WATER COURSES, STREAM FLOW DIVERSION METHODS SHALL BE IMPLEMENTED PRIOR TO ANY EXCAVATION OR FILLING.
   3.5. WHEN WORK IS PERFORMED WITHIN 50 FEET OF SURFACE WATERS (WETLAND, OPEN WATER OR FLOWING WATER), PERIMETER CONTROL SHALL BE ENHANCED CONSISTENT WITH SECTION 2.1.2.1. OF THE 2012 NPDES CONSTRUCTION GENERAL PERMIT.

4. MINIMIZE THE AMOUNT OF EXPOSED SOIL:
   4.1. CONSTRUCTION SHALL BE SEQUENCED TO LIMIT THE DURATION AND AREA OF EXPOSED SOILS. MINIMIZE THE AREA OF EXPOSED SOIL AT ANY ONE TIME. PHASING SHALL BE USED TO REDUCE THE AMOUNT AND DURATION OF SOIL EXPOSED TO THE ELEMENTS AND VEHICLE TRACKING.
   4.2. UTILIZE TEMPORARY MULCHING OR PROVIDE ALTERNATE TEMPORARY STABILIZATION ON EXPOSED SOILS IN ACCORDANCE WITH TABLE 1.
   4.3. THE MAXIMUM AMOUNT OF DISTURBED EARTH SHALL NOT EXCEED A TOTAL OF 5 ACRES FROM MAY 1" THROUGH NOVEMBER 30", OR EXCEED ONE ACRE DURING WINTER MONTHS, UNLESS THE CONTRACTOR DEMONSTRATES TO THE DEPARTMENT THAT THE ADDITIONAL AREA OF DISTURBANCE IS NECESSARY TO MEET THE CONTRACTORS CRITICAL PATH METHOD SCHEDULE (CPM), AND THE CONTRACTOR HAS ADEQUATE RESOURCES AVAILABLE TO ENSURE THAT ENVIRONMENTAL COMMITMENTS WILL BE MET.

5. CONTROL STORMWATER FLOWING ONTO AND THROUGH THE PROJECT:
   5.1. DIVERT OFF SITE RUNOFF OR CLEAN WATER AWAY FROM THE CONSTRUCTION ACTIVITY TO REDUCE THE VOLUME THAT NEEDS TO BE TREATED ON SITE.
   5.2. DIVERT STORM RUNOFF FROM UPSLOPE DRAINAGE AREAS AWAY FROM DISTURBED AREAS, SLOPES, AND AROUND ACTIVE WORK AREAS AND TO A STABILIZED OUTLET LOCATION.
   5.3. CONSTRUCT IMPERMEABLE BARRIERS AS NECESSARY TO COLLECT OR DIVERT CONCENTRATED FLOWS FROM WORK OR DISTURBED AREAS.
   5.4. STABILIZE, TO APPROPRIATE ANTICIPATED VELOCITIES, CONVEYANCE CHANNELS OR PUMPING SYSTEMS NEEDED TO CONVEY CONSTRUCTION STORMWATER TO BASINS AND DISCHARGE LOCATIONS PRIOR TO USE.
   5.5. DIVERT OFF-SITE WATER THROUGH THE PROJECT IN AN APPROPRIATE MANNER SO NOT TO DISTURB THE UPSTREAM OR DOWNSTREAM SOILS, VEGETATION OR HYDROLOGY BEYOND THE PERMITTED AREA.

6. PROTECT SLOPES:
   6.1. INTERCEPT AND DIVERT STORM RUNOFF FROM UPSLOPE DRAINAGE AREAS AWAY FROM UNPROTECTED AND NEWLY ESTABLISHED AREAS AND SLOPES TO A STABILIZED OUTLET OR CONVEYANCE.
   6.2. CONSIDER HOW GROUNDWATER SEEPAGE ON CUT SLOPES MAY IMPACT SLOPE STABILITY AND INCORPORATE APPROPRIATE MEASURES TO MINIMIZE EROSION.
   6.3. CONVEY STORMWATER DOWN THE SLOPE IN A STABILIZED CHANNEL OR SLOPE DRAIN.
   6.4. THE OUTER FACE OF THE FILL SLOPE SHOULD BE IN A LOOSE RUFFLED CONDITION PRIOR TO TURF ESTABLISHMENT. TOPSOIL OR HUMUS LAYERS SHALL BE TRACKED UP AND DOWN THE SLOPE, DISKED, HARROWED, DRAGGED WITH A CHAIN OR MAT, MACHINE-RAKED, OR HAND-WORKED TO PRODUCE A RUFFLED SURFACE.

7. ESTABLISH STABILIZED CONSTRUCTION EXITS:
   7.1. INSTALL AND MAINTAIN CONSTRUCTION EXITS, ANYWHERE TRAFFIC LEAVES A CONSTRUCTION SITE ONTO A PUBLIC RIGHT-OF-WAY.
   7.2. SWEEP ALL CONSTRUCTION RELATED DEBRIS AND SOIL FROM THE ADJACENT PAVED ROADWAYS AS NECESSARY.

8. PROTECT STORM DRAIN INLETS:
   8.1. DIVERT SEDIMENT LADEN WATER AWAY FROM INLET STRUCTURES TO THE EXTENT POSSIBLE.
   8.2. INSTALL SEDIMENT BARRIERS AND SEDIMENT TRAPS AT INLETS TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM.
   8.3. CLEAN CATCH BASINS, DRAINAGE PIPES, AND CULVERTS IF SIGNIFICANT SEDIMENT IS DEPOSITED.
   8.4. DROP INLET SEDIMENT BARRIERS SHOULD NEVER BE USED AS THE PRIMARY MEANS OF SEDIMENT CONTROL AND SHOULD ONLY BE USED TO PROVIDE AN ADDITIONAL LEVEL OF PROTECTION TO STRUCTURES AND DOWN-GRADIENT SENSITIVE RECEPTORS.

9. SOIL STABILIZATION:
   9.1. WITHIN THREE DAYS OF THE LAST ACTIVITY IN AN AREA, ALL EXPOSED SOIL AREAS, WHERE CONSTRUCTION ACTIVITIES ARE COMPLETE, SHALL BE STABILIZED.
   9.2. IN ALL AREAS, TEMPORARY SOIL STABILIZATION MEASURES SHALL BE APPLIED IN ACCORDANCE WITH THE STABILIZATION REQUIREMENTS (SECTION 2.2) OF THE 2012 CGP. (SEE TABLE 1 FOR GUIDANCE ON THE SELECTION OF TEMPORARY SOIL STABILIZATION MEASURES.)
   9.3. EROSION CONTROL SEED MIX SHALL BE SOWN IN ALL INACTIVE CONSTRUCTION AREAS THAT WILL NOT BE PERMANENTLY SEEDED WITHIN TWO WEEKS OF DISTURBANCE AND PRIOR TO SEPTEMBER 15, OF ANY GIVEN YEAR, IN ORDER TO ACHIEVE VEGETATIVE STABILIZATION PRIOR TO THE END OF THE GROWING SEASON.
   9.4. SOIL TACKIFIERS MAY BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND REAPPLIED AS NECESSARY TO MINIMIZE SOIL AND MULCH LOSS UNTIL PERMANENT VEGETATION IS ESTABLISHED.

10. RETAIN SEDIMENT ON-SITE AND CONTROL DEWATERING PRACTICES:
   10.1. TEMPORARY SEDIMENT BASINS (CGP-SECTION 2.1.3.2) OR SEDIMENT TRAPS (ENV-WQ 1506.10) SHALL BE SIZED TO RETAIN, ON SITE, THE VOLUME OF A 2-YEAR 24-HOUR STORM EVENT FOR ANY AREA OF DISTURBANCE OR 3,600 CUBIC FEET OF STORMWATER RUNOFF PER ACRE OF DISTURBANCE, WHICHEVER IS GREATER. TEMPORARY SEDIMENT BASINS USED TO TREAT STORMWATER RUNOFF FROM AREAS GREATER THAN 5-ACRES OF DISTURBANCE SHALL BE SIZED TO ALSO CONTROL STORMWATER RUNOFF FROM A 10-YEAR 24 HOUR STORM EVENT. ON-SITE RETENTION OF THE 10-YEAR 24-HOUR EVENT IS NOT REQUIRED.
   10.2. CONSTRUCT AND STABILIZE DEWATERING INFILTRATION BASINS PRIOR TO ANY EXCAVATION THAT MAY REQUIRE DEWATERING.
   10.3. TEMPORARY SEDIMENT BASINS OR TRAPS SHALL BE PLACED AND STABILIZED AT LOCATIONS WHERE CONCENTRATED FLOW (CHANNELS AND PIPES) DISCHARGE TO THE SURROUNDING ENVIRONMENT FROM AREAS OF UNSTABILIZED EARTH DISTURBING ACTIVITIES.

11. ADDITIONAL EROSION AND SEDIMENT CONTROL GENERAL PRACTICES:
   11.1. USE TEMPORARY MULCHING, PERMANENT MULCHING, TEMPORARY VEGETATIVE COVER, AND PERMANENT VEGETATIVE COVER TO REDUCE THE NEED FOR DUST CONTROL. USE MECHANICAL SWEEPERS ON PAVED SURFACES WHERE NECESSARY TO PREVENT DUST BUILDUP. APPLY WATER, OR OTHER DUST INHIBITING AGENTS OR TACKIFIERS, AS APPROVED BY THE NHDES.
   11.2. ALL STOCKPILES SHALL BE CONTAINED WITH TEMPORARY PERIMETER CONTROLS. INACTIVE SOIL STOCKPILES SHOULD BE PROTECTED WITH SOIL STABILIZATION MEASURES (TEMPORARY EROSION CONTROL SEED MIX AND MULCH, SOIL BINDER) OR COVERED WITH ANCHORED TARPS.
   11.3. EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED IN ACCORDANCE WITH SECTION 645 OF NHDOT SPECIFICATIONS, WEEKLY AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.25 IN. OF RAIN PER 24-HOUR PERIOD. EROSION AND SEDIMENT CONTROL MEASURES WILL ALSO BE INSPECTED IN ACCORDANCE WITH THE GUIDANCE MEMO FROM THE NHDES CONTAINED WITHIN THE CONTRACT PROPOSAL AND THE EPA CONSTRUCTION GENERAL PERMIT.
   11.4. THE CONTRACTOR SHOULD UTILIZE STORM DRAIN INLET PROTECTION TO PREVENT SEDIMENT FROM ENTERING A STORM DRAINAGE SYSTEM PRIOR TO THE PERMANENT STABILIZATION OF THE CONTRIBUTING DISTURBED AREA.
   11.5. PERMANENT STABILIZATION MEASURES WILL BE CONSTRUCTED AND MAINTAINED IN LOCATIONS AS SHOWN ON THE CONSTRUCTION PLANS TO STABILIZE AREAS. VEGETATIVE STABILIZATION SHALL NOT BE CONSIDERED PERMANENTLY STABILIZED UNTIL VEGETATIVE GROWTH COVERS AT LEAST 85% OF THE DISTURBED AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL FOR ONE YEAR AFTER PROJECT COMPLETION.
   11.6. CATCH BASINS: CARE SHALL BE TAKEN TO ENSURE THAT SEDIMENTS DO NOT ENTER ANY EXISTING CATCH BASINS DURING CONSTRUCTION. THE CONTRACTOR SHALL PLACE TEMPORARY STONE INLET PROTECTION OVER INLETS IN AREAS OF SOIL DISTURBANCE THAT ARE SUBJECT TO SEDIMENT CONTAMINATION.
   11.7. TEMPORARY AND PERMANENT DITCHES SHALL BE CONSTRUCTED, STABILIZED AND MAINTAINED IN A MANNER THAT WILL MINIMIZE SCOUR. TEMPORARY AND PERMANENT DITCHES SHALL BE DIRECTED TO DRAIN TO SEDIMENT BASINS OR STORM WATER COLLECTION AREAS.
   11.8. WINTER EXCAVATION AND EARTHWORK ACTIVITIES NEED TO BE LIMITED IN EXTENT AND DURATION, TO MINIMIZE POTENTIAL EROSION AND SEDIMENTATION IMPACTS. THE AREA OF EXPOSED SOIL SHALL BE LIMITED TO ONE ACRE, OR THAT WHICH CAN BE STABILIZED AT THE END OF EACH DAY UNLESS A WINTER CONSTRUCTION PLAN, DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST, IS REVIEWED AND APPROVED BY THE DEPARTMENT.
   11.9. CHANNEL PROTECTION MEASURES SHALL BE SUPPLEMENTED WITH PERIMETER CONTROL MEASURES WHEN THE DITCH LINES OCCUR AT THE BOTTOM OF LONG FILL SLOPES. THE PERIMETER CONTROLS SHALL BE INSTALLED ON THE FILL SLOPE TO MINIMIZE THE POTENTIAL FOR FILL SLOPE SEDIMENT DEPOSITS IN THE DITCH LINE.

BEST MANAGEMENT PRACTICES (BMP) BASED ON AMOUNT OF OPEN CONSTRUCTION AREA

12. STRATEGIES SPECIFIC TO OPEN AREAS LESS THAN 5 ACRES:
   12.1. THE CONTRACTOR SHALL COMPLY WITH RSA 485:A:17 AND ENV-WQ 1500: ALTERATION OF TERRAIN FOR CONSTRUCTION AND USE ALL CONVENTIONAL BMP STRATEGIES.
   12.2. SLOPES STEEPER THAN 3:1 WILL RECEIVE TURF ESTABLISHMENT WITH MATTING.
   12.3. SLOPES 3:1 OR FLATTER WILL RECEIVE TURF ESTABLISHMENT ALONE.
   12.4. AREAS WHERE HAUL ROADS ARE CONSTRUCTED AND STORMWATER CANNOT BE TREATED THE DEPARTMENT WILL CONSIDER INFILTRATION.
   12.5. FOR HAUL ROADS ADJACENT TO SENSITIVE ENVIRONMENTAL AREAS OR STEEPER THAN 5%, THE DEPARTMENT WILL CONSIDER USING EROSION STONE, CRUSHED GRAVEL, OR CRUSHED STONE BASE TO HELP MINIMIZE EROSION ISSUES.
   12.6. ALL AREAS THAT CAN BE STABILIZED SHALL BE STABILIZED PRIOR TO OPENING UP NEW TERRITORY.
   12.7. DETENTION BASINS SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE A 2 YEAR STORM EVENT.

13. STRATEGIES SPECIFIC TO OPEN AREAS BETWEEN 5 AND 10 ACRES:
   13.1. THE CONTRACTOR SHALL COMPLY WITH RSA 485:A:17 AND ENV-WQ 1500 ALTERATION OF TERRAIN AND SHALL USE CONVENTIONAL BMP STRATEGIES AND ALL TREATMENT OPTIONS USED FOR UNDER 5 ACRES WILL BE UTILIZED.
   13.2. DETENTION BASINS WILL BE CONSTRUCTED TO ACCOMMODATE THE 2-YEAR 24-HOUR STORM EVENT AND CONTROL A 10-YEAR 24-HOUR STORM EVENT.
   13.3. SLOPES STEEPER THAN A 3:1 WILL RECEIVE TURF ESTABLISHMENT WITH MATTING OR OTHER TEMPORARY SOIL STABILIZATION MEASURES DETAILED IN TABLE 1. THE CONTRACTOR MAY ALSO CONSIDER A SOIL BINDER IN ACCORDANCE WITH THE NHDES APPROVALS OR REGULATIONS. OTHER ALTERNATIVE MEASURES, SUCH AS BONDED FIBER MATRIXES (BFMS) OR FLEXIBLE GROWTH MEDIUMS (FGMS) MAY BE UTILIZED, IF MEETING THE NHDES APPROVALS AND REGULATIONS.
   13.4. SLOPES 3:1 OR FLATTER WILL RECEIVE TURF ESTABLISHMENT OR OTHER TEMPORARY SOIL STABILIZATION MEASURES DETAILED IN TABLE 1. THE CONTRACTOR MAY ALSO CONSIDER A SOIL BINDER IN ACCORDANCE WITH THE NHDES APPROVALS OR REGULATIONS.

14. STRATEGIES SPECIFIC TO OPEN AREAS OVER 10 ACRES:
   14.1. THE CONTRACTOR SHALL COMPLY WITH RSA 485:A:17 AND ENV-WQ 1500 ALTERATION OF TERRAIN AND SHALL USE CONVENTIONAL BMP STRATEGIES AND ALL TREATMENT OPTIONS USED FOR UNDER 5 ACRES AND BETWEEN 5 AND 10 ACRES WILL BE UTILIZED.
   14.2. THE DEPARTMENT ANTICIPATES THAT SOIL BINDERS WILL BE NEEDED ON ALL SLOPES STEEPER THAN 3:1, IN ORDER TO MINIMIZE EROSION AND REDUCE THE AMOUNT OF SEDIMENT IN THE STORMWATER TREATMENT BASINS.
   14.3. THE CONTRACTOR WILL BE REQUIRED TO HAVE AN APPROVED DESIGN IN ACCORDANCE WITH ENV-WQ 1506.12 FOR AN ACTIVE FLOCCULANT TREATMENT SYSTEM TO TREAT AND RELEASE WATER CAPTURED IN STORM WATER BASINS. THE CONTRACTOR SHALL ALSO RETAIN THE SERVICES OF AN ENVIRONMENTAL CONSULTANT WHO HAS DEMONSTRATED EXPERIENCE IN THE DESIGN OF FLOCCULANT TREATMENT SYSTEMS. THE CONSULTANT WILL ALSO BE RESPONSIBLE FOR THE IMPLEMENTATION AND MONITORING OF THE SYSTEM.

TABLE 1

GUIDANCE ON SELECTING TEMPORARY SOIL STABILIZATION MEASURES

APPLICATION AREAS	DRY MULCH METHODS				HYDRAULICALLY APPLIED MULCHES[2]				ROLLED EROSION CONTROL BLANKETS[3]			
	HMT	WC	SG	CB	HM	SMM	BFM	FRM	SNSB	DNSB	DNSCB	DNCB
SLOPES[1]												
STEEPER THAN 2:1	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	YES
2:1 SLOPE	YES[1]	YES[1]	YES	YES	NO	NO	YES	YES	NO	YES	YES	YES
3:1 SLOPE	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	NO
4:1 SLOPE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
WINTER STABILIZATION	4T/AC	YES	YES	YES	NO	NO	YES	YES	YES	YES	YES	YES
CHANNELS												
LOW FLOW CHANNELS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES
HIGH FLOW CHANNELS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES

ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE
HMT	HAY MULCH & TACK	HM	HYDRAULIC MULCH	SNSB	SINGLE NET STRAW BLANKET
WC	WOOD CHIPS	SMM	STABILIZED MULCH MATRIX	DNSB	DOUBLE NET STRAW BLANKET
SG	STUMP GRINDINGS	BFM	BONDED FIBER MATRIX	DNSCB	2 NET STRAW-COCONUT BLANKET
CB	COMPOST BLANKET	FRM	FIBER REINFORCED MEDIUM	DNCB	2 NET COCONUT BLANKET

NOTES:
1. ALL SLOPE STABILIZATION OPTIONS ASSUME A SLOPE LENGTH ≤10 TIMES THE HORIZONTAL DISTANCE COMPONENT OF THE SLOPE, IN FEET.
2. PRODUCTS CONTAINING POLYACRYLAMIDE (PAM) SHALL NOT BE APPLIED DIRECTLY TO OR WITHIN 100 FEET OF ANY SURFACE WATER WITHOUT PRIOR WRITTEN APPROVAL FROM THE NH DEPARTMENT OF ENVIRONMENTAL SERVICES.
3. ALL EROSION CONTROL BLANKETS SHALL BE MADE WITH WILDLIFE FRIENDLY BIODEGRADABLE NETTING.

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

WETLAND IMPACT PLANS

REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
12-21-2015	40518erosstrat	40518	4	19

WETLAND IMPACT SUMMARY

WETLAND NUMBER	WETLAND CLASSIFICATION	LOCATION	AREA IMPACTS						LINEAR STREAM IMPACTS FOR PERMANENT		
			PERMANENT				TEMPORARY				
			N.H.W.B (NON-WETLAND)		N.H.W.B AND A.C.O.E. (WETLAND)				BANK LEFT	BANK RIGHT	CHAN.
			SF	LF	SF	LF	SF	LF	LF	LF	LF
1	PFO1E	A					146				
4	PFO1E	B			189		217				
5	PFO1E	C			80		29				
6	PFO1E	D			122		222				
10	PFO1E/4E (Ditch)	E			801		250				
11	PFO1E/4E	F			109		30				
13	PFO1E	G			76		31				
14	PFO1E/4E (Ditch)	H			2704		384				
15	PEM1EX (Ditch)	I			1334						
16	PFO1E/4E	J			288		29				
17	PEM1EX (Ditch)	K			1426						
18	PFO1E/4E (Ditch)	L			4618		1518				
19	PFO1E/4E	M			64		35				
20	PFO1E/4E	N			925		556				
	PFO1E/4E	O			90		134				
21	PFO1E/4E	P			27		15				
22	R4SB3	Q			22	7	15	5			7
	R4SB3	R			77	26	15	5			26
23	PFO1E/4E (Ditch)	S			400		31				
24	PFO1E/4E	T			410		202				
25	PFO1E/4E (Ditch)	U			677		57				
26	R4SB3	V			39	13	16	5			13
	R4SB3	W			76	25	15	5			25
27	PFO1E/4E	X			76		15				
28	PFO1E/4E	Y			241		21				
29	PEM1EX (Ditch)	Z			426						
30	PFO1E/4E (Ditch)	AA			436		65				
31	R4SB3	AB			4	1	15	5			1
33	PFO1E/4E	AC			1		24				
34	PFO1E/4E (Ditch)	AD			2982		1566				
35	R4SB3	AE			3	2	10	5			2
	R4SB3	AF			58	24	35	11			24
36	BANK (R4)	AG	309	28			180	13			
37	BANK (R4)	AH	30	17			26	9			
39	PFO1E	AI			12		12				
40	R4SB3	AJ			5	5	5	5			5
41	PFO1E	AK			11		16				
42	PFO1E	AL			184		190				
43	PFO1E/4E (Ditch)	AM			182		38				
44	R4SB3	AN			50	25	10	5			25
45	BANK (R4)	AO	33	4			87	6			
46	PFO1E/4E	AP			2		28				
47	PFO1E/4E (Ditch)	AQ			2548		719				
48	R4SB3	AR			47	15	36	11			15
49	BANK (R4)	AS	83	6			57	15			
50	BANK (R4)	AT	161	20			137	21			
51	PFO1E/4E	AU			89						
52	PEM1EX (Ditch)	AV			1399						
53	PFO1E	AW			58		26				
54	PSS1E	AX					858				
55	R3UB1	AY					235	26			
	R3UB1	AZ					1193	49			
56	BANK (R3)	BA					144	40			
57	BANK (R3)	BB					217	48			
	BANK (R3)	BC	132	23			15	5		23	
58	PFO1E	BD					200				
59	PSS1E	BE					365				
60	PFO1E/4E (Ditch)	BF			6412		2861				
	PFO1E/4E (Ditch)	BG			3055		853				
61	PFO1E/4E	BH			296		2838				
	PFO1E/4E	BI	Not Used						Not Used		
62	PFO1E/4E	BJ			44		42				
63	R4SB1	BK			57	29	17	8			29
64	PFO1E/4E	BL			181		50				
65	PFO1E/4E	BM			133		41				
68	R4SB1	BN			24	12	11	6			12
	R4SB1	BO			55	27	10	5			27
69	BANK (R4)	BP	128	26			29	5			
70	BANK (R4)	BQ	105	28			111	27			
71	PFO1E/4E (Ditch)	BR			1340		826				
72	PFO1E/4E	BS			201		207				
73	PFO1E/4E	BT			43		44				
74	PFO1E/4E	BU					21				
76	PFO1E	BV			275		52				
77	R4SB3	BW			14	14	5	5			14
	R4SB3	BX			27	27	5	5			27
78	PFO1E	BY			97		67				
79	PFO1E	BZ			129		46				
Total Impacts			981	152	35751	252	18623	355	0	23	252

WETLAND CLASSIFICATION CODES	
BANK	BANK
R3UB1	RIVERINE, UPPER PERENNIAL, UNCONSOLIDATED BOTTOM, COBBLE-GRAVEL
PSS1E	PALUSTRINE, SCRUB-SHRUB, BROAD-LEAVED DECIDUOUS, SEASONALLY FLOODED/SATURATED
PFO1E/4E	PALUSTRINE, FORESTED, BROAD-LEAVED DECIDUOUS/NEEDLE-LEAVED EVERGREEN, SEASONALLY FLOODED/SATURATED
R4SB3	RIVERINE, INTERMITTENT, STREAMBED, COBBLE-GRAVEL
PUB2H	PALUSTRINE, UNCONSOLIDATED, SAND BOTTOM, DIKE/IMPOUNDED
PFO1E	PALUSTRINE, FORESTED, BROAD LEAVED DECIDUOUS/NEEDLE-LEAVED EVERGREEN, SEASONALLY FLOODED/SATURATED
PEM1E	PALUSTRINE, EMERGENT, PERSISTENT, SEASONALLY FLOODED/SATURATED
R4SB1	RIVERINE, INTERMITTENT, STREAMBED, BEDROCK
PEM1EX	PALUSTRINE, EMERGENT, PERSISTENT, SEASONALLY FLOODED/SATURATED AND EXCAVATED

LEGEND

TYPE OF WETLAND IMPACT	SHADING/ HATCHING
NEW HAMPSHIRE WETLANDS BUREAU (PERMANENT NON-WETLAND)	
NEW HAMPSHIRE WETLANDS BUREAU & ARMY CORP OF ENGINEERS (PERMANENT WETLAND)	
TEMPORARY IMPACTS	

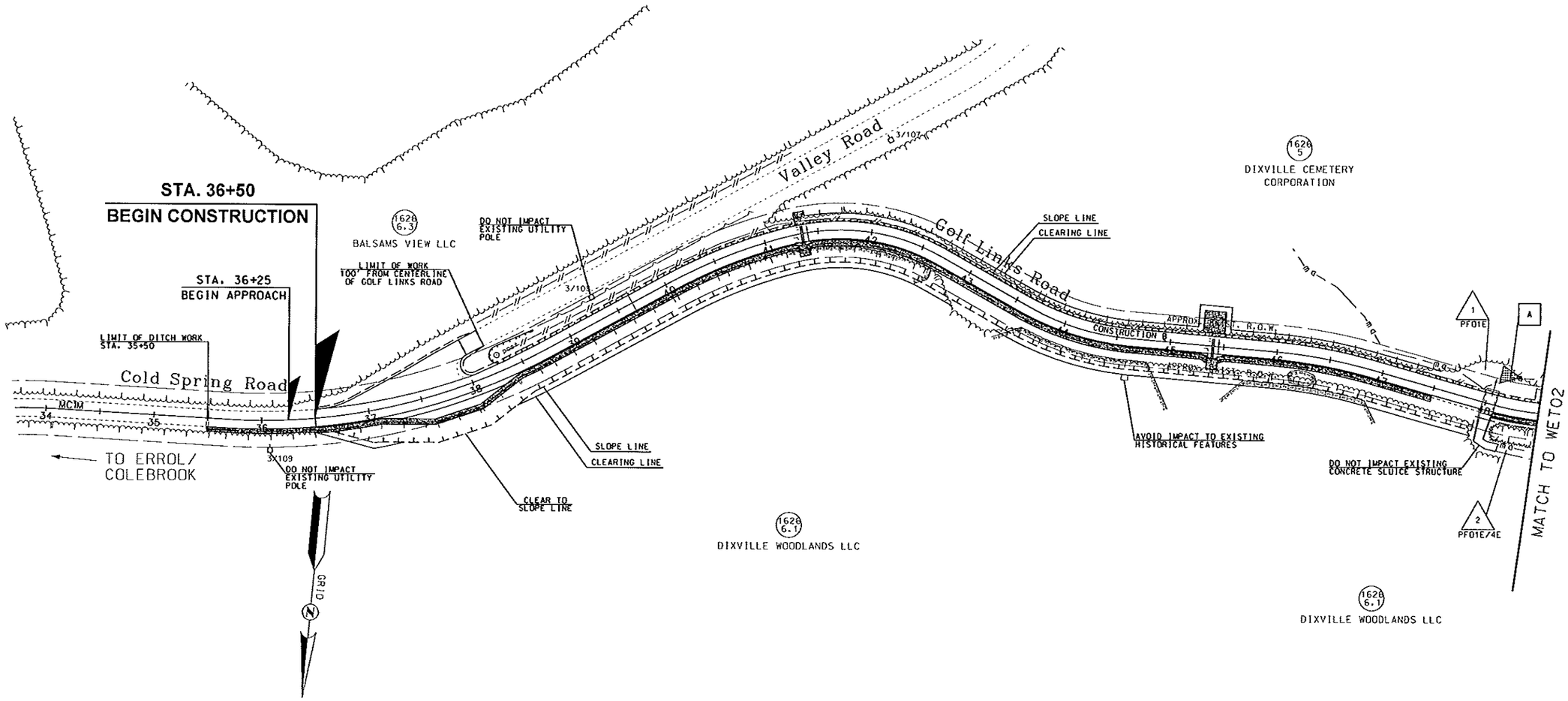
- # WETLAND DESIGNATION NUMBER
- # WETLAND IMPACT LOCATION
- # WETLAND MITIGATION AREA
- MITIGATION

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

WETLAND IMPACT SUMMARY

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
WETSUM	40518WET	40518	5	19



Delineation by:
Stoney Ridge Environmental
September 2015

50 0 50 100
SCALE IN FEET

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

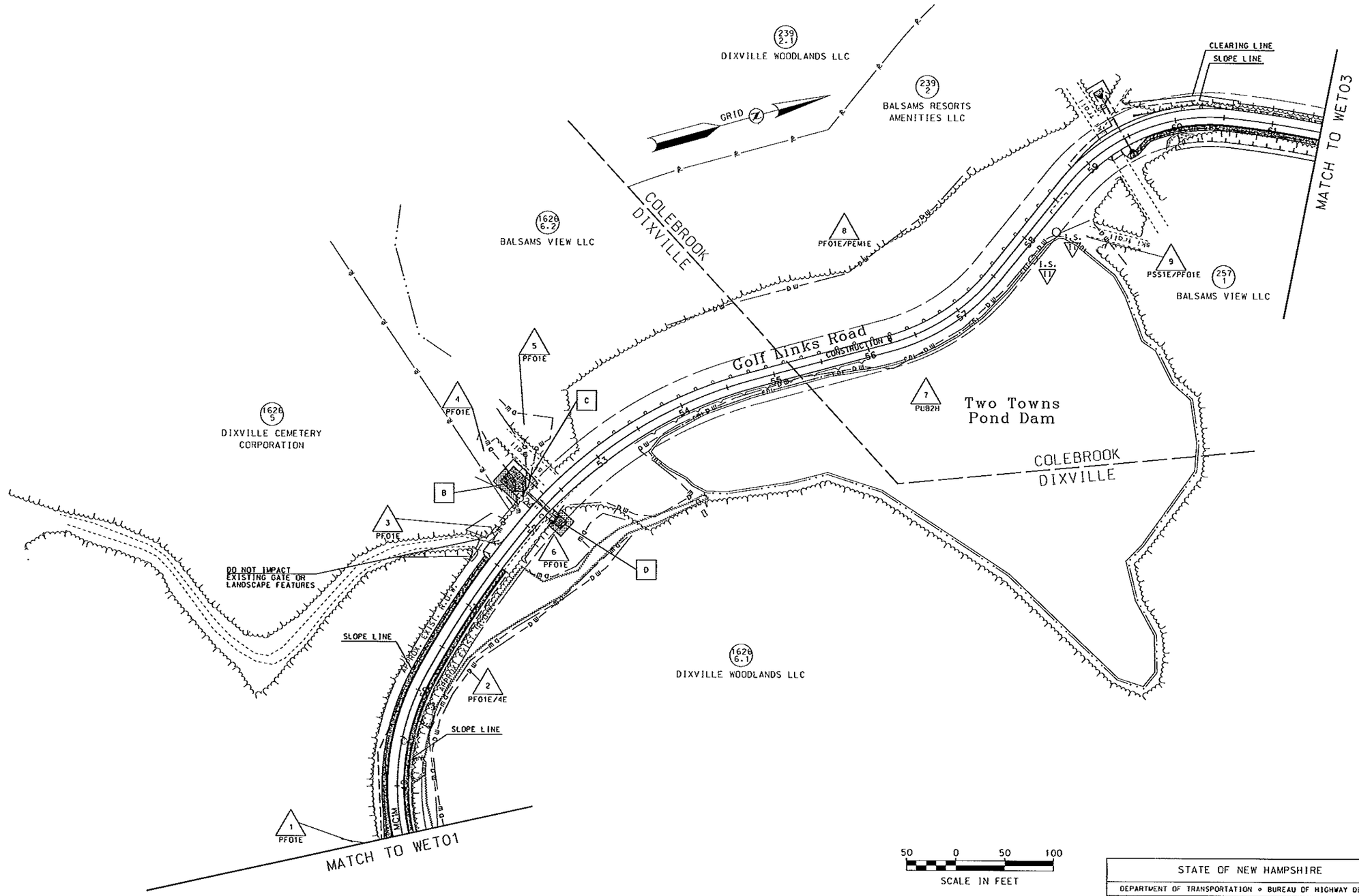
WETLAND IMPACT PLANS

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
WET01	40518WET	40518	6	19

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

		DATE
SDR PROCESSED		
NEW DESIGN	M. BALDWIN	DATE 02/2016
SHEET CHECKED	C. SPETELUNAS	DATE 03/2016
AS BUILT DETAILS		DATE



REVISIONS AFTER PROPOSAL				
NUMBER	DATE	STATION	STATION	DESCRIPTION

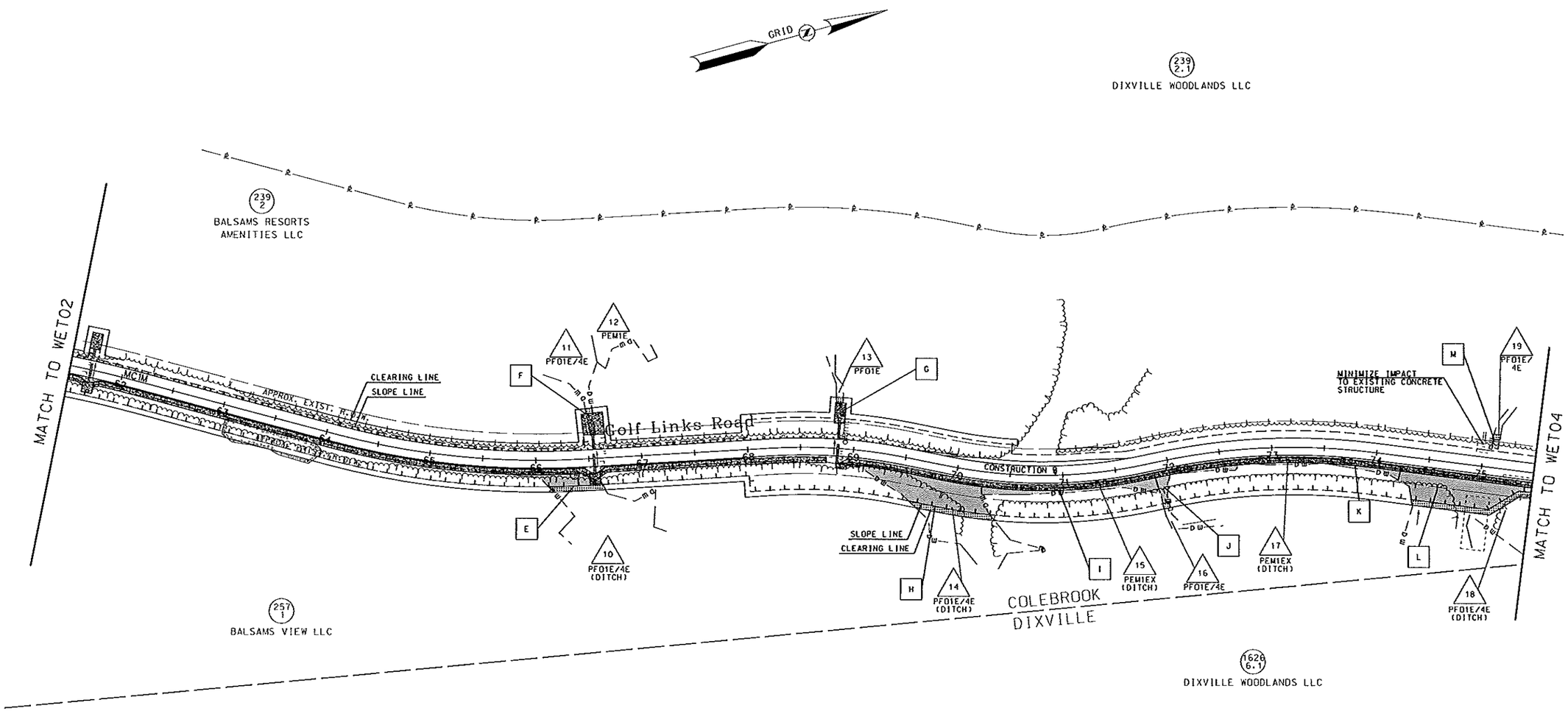
SDR PROCESSED		DATE
NEW DESIGN	W. BALDWIN	DATE 02/2016
SHEET CHECKED	C. SPETELUNAS	DATE 03/2016
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

WETLAND IMPACT PLANS

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
WET02	40518WET	40518	7	19



REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

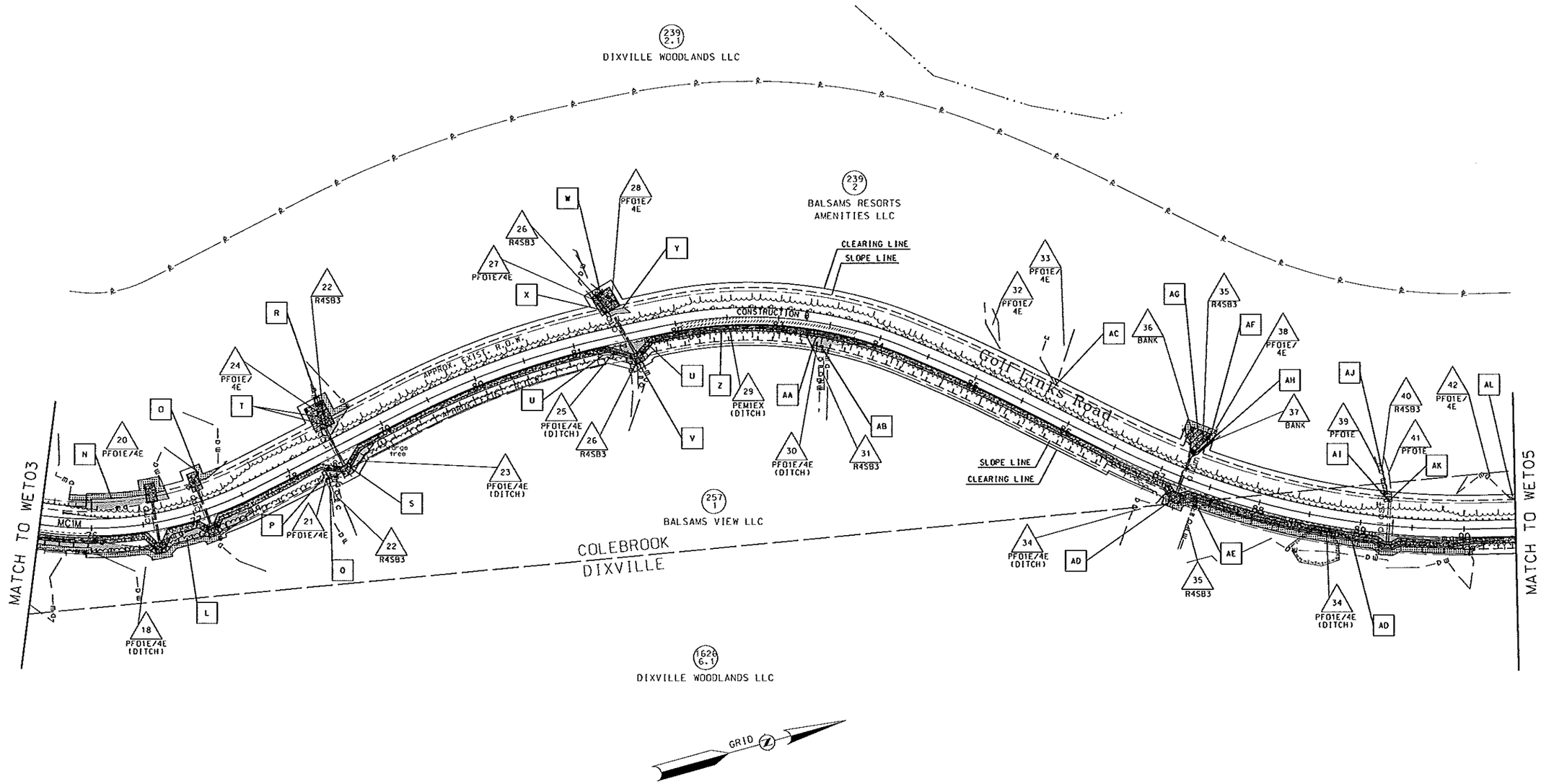
SDR PROCESSED		DATE
NEW DESIGN	M. BALDWIN	DATE 02/2016
SHEET CHECKED	C. SPETELUNAS	DATE 03/2016
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

WETLAND IMPACT PLANS

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
WET03	40518WET	40518	8	19



REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	STATION

DESCRIPTION

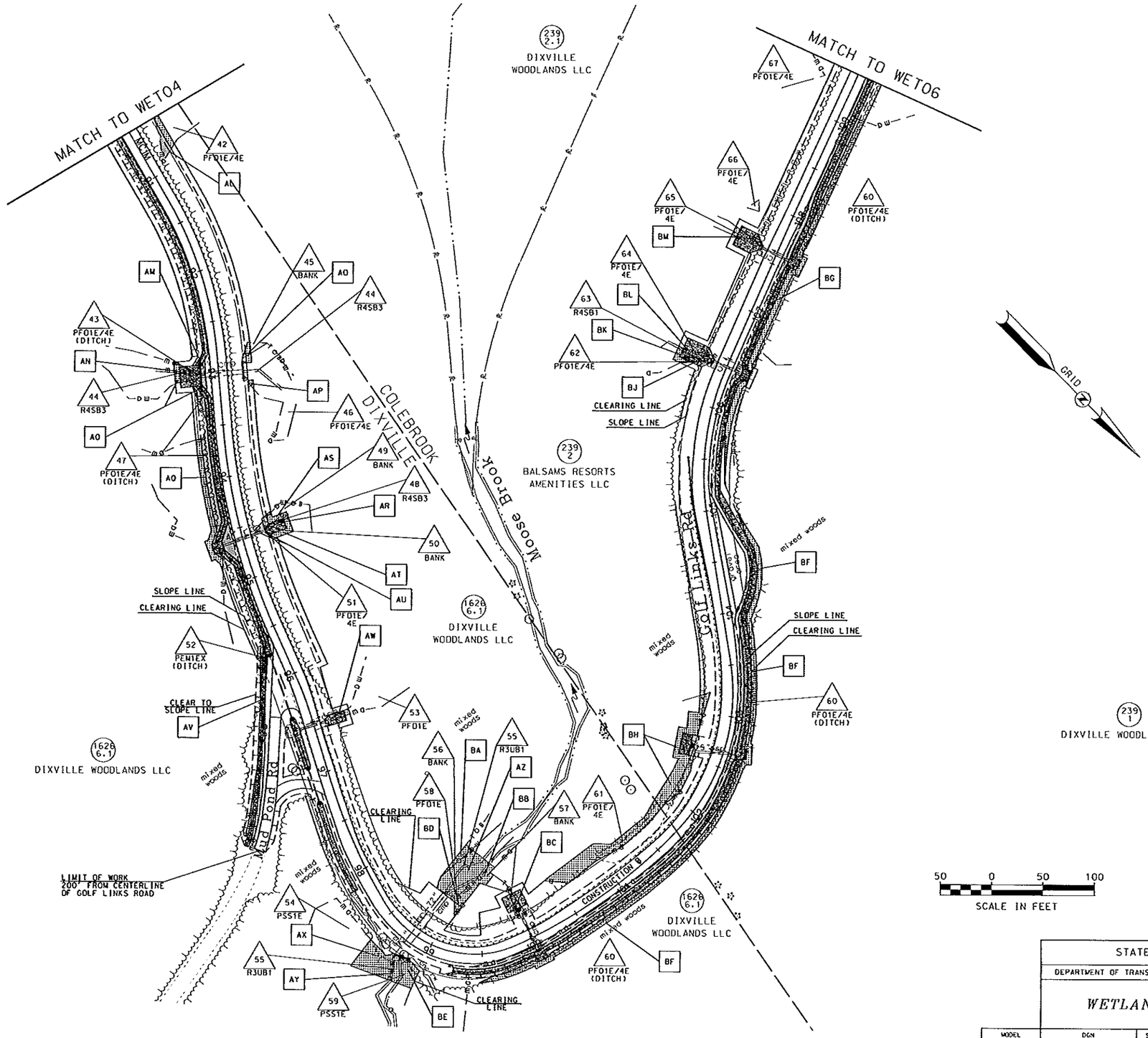
SDR PROCESSED		DATE
NEW DESIGN	M. BALDWIN	DATE 02/2016
SHEET CHECKED	C. SPETELUNAS	DATE 03/2016
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

WETLAND IMPACT PLANS

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
WETO4	40518WET	40518	9	19



REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	STATION	DESCRIPTION

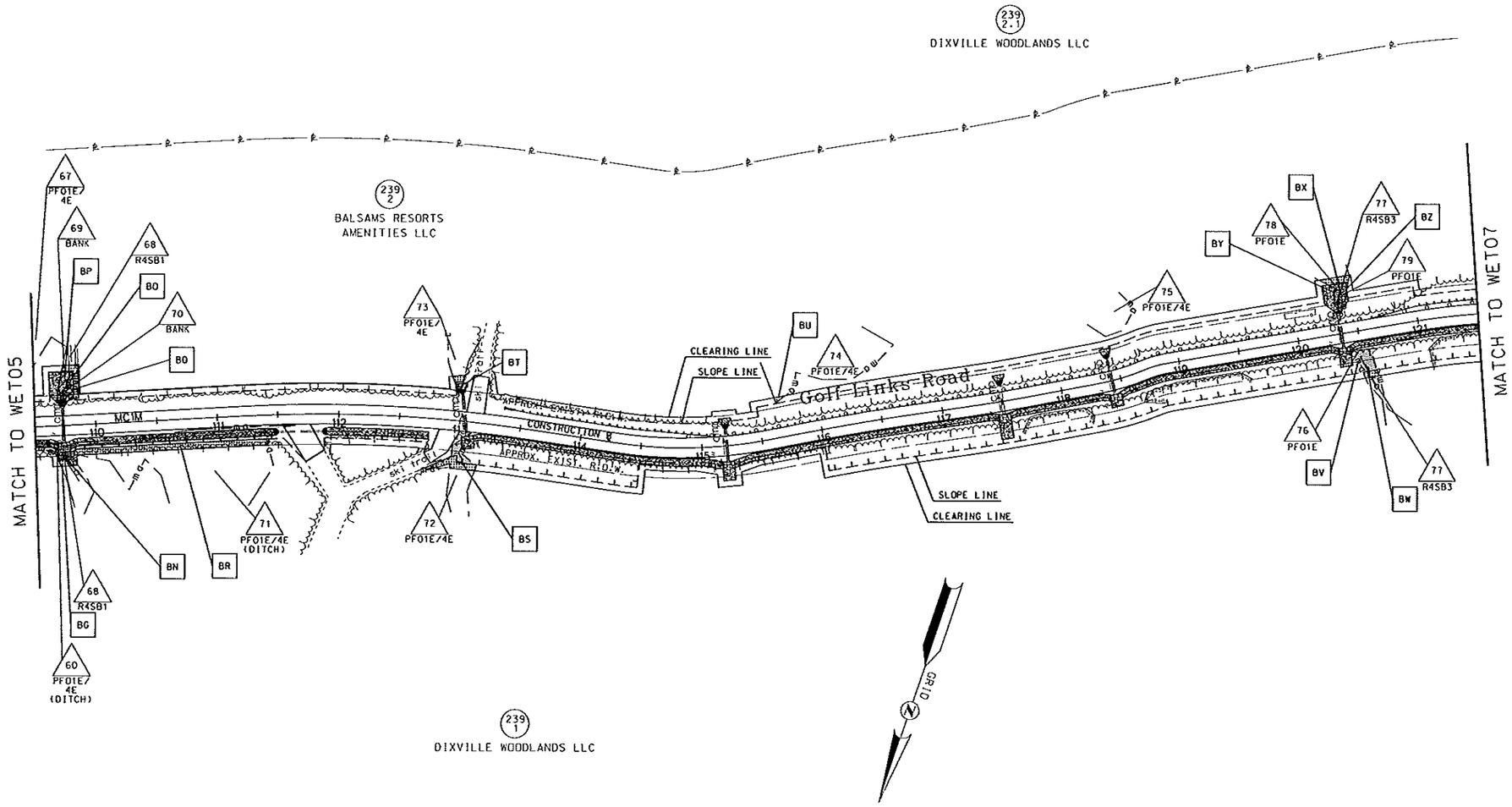
SOR PROCESSED		DATE
NEW DESIGN	M. BALDWIN	DATE 02/2016
SHEET CHECKED	C. SPETELUNAS	DATE 03/2016
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

WETLAND IMPACT PLANS

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
WET05	40518WET	40518	10	19



50 0 50 100
SCALE IN FEET

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED		DATE
NEW DESIGN	M. BALDWIN	DATE 02/2016
SHEET CHECKED	C. SPETELUNAS	DATE 03/2016
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

WETLAND IMPACT PLANS

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
WET06	40518WET	40518	11	19

239
2.1
DIXVILLE WOODLANDS LLC

239
2
BALSAMS RESORTS
AMENITIES LLC

239
1
DIXVILLE WOODLANDS LLC

MATCH TO WET06

CLEARING LINE
SLOPE LINE

CLEAR TO
SLOPE LINE
SLOPE LINE

Golf Links Road

APPROX. EXIST. E.O.P.
CONSTRUCTION ℄
MCIM
122
123
124
125
126
127
128
129
130
131
132
APPROX. EXISTING D.W.
Contours

SLOPE LINE
CLEAR TO
SLOPE LINE

DO NOT IMPACT
EXISTING STRUCTURE

SLOPE LINE
CLEARING LINE

LIMIT OF WORK
75' FROM CENTERLINE
OF GOLF LINKS ROAD

Golf Links Road Ext.

80
PFO1E

DO NOT IMPACT
EXISTING STRUCTURE
OR TRANSFORMER PAD

transformer
pad
existing dam
overflow pipe

DO NOT IMPACT
EXISTING
CROSS-PIPES

STA. 131+75
END CONSTRUCTION

STA. 132+00
END APPROACH

CONSTRUCTION
STAGING
AREA

TO GOLF COURSE

81
PFO1E

82
PUB2H

Rec Pond
Dam

Balsams
Country
Club

GRID N

50 0 50 100
SCALE IN FEET

PRELIMINARY PLANS
SUBJECT TO CHANGE
DATE 4/8/2016

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	STATION

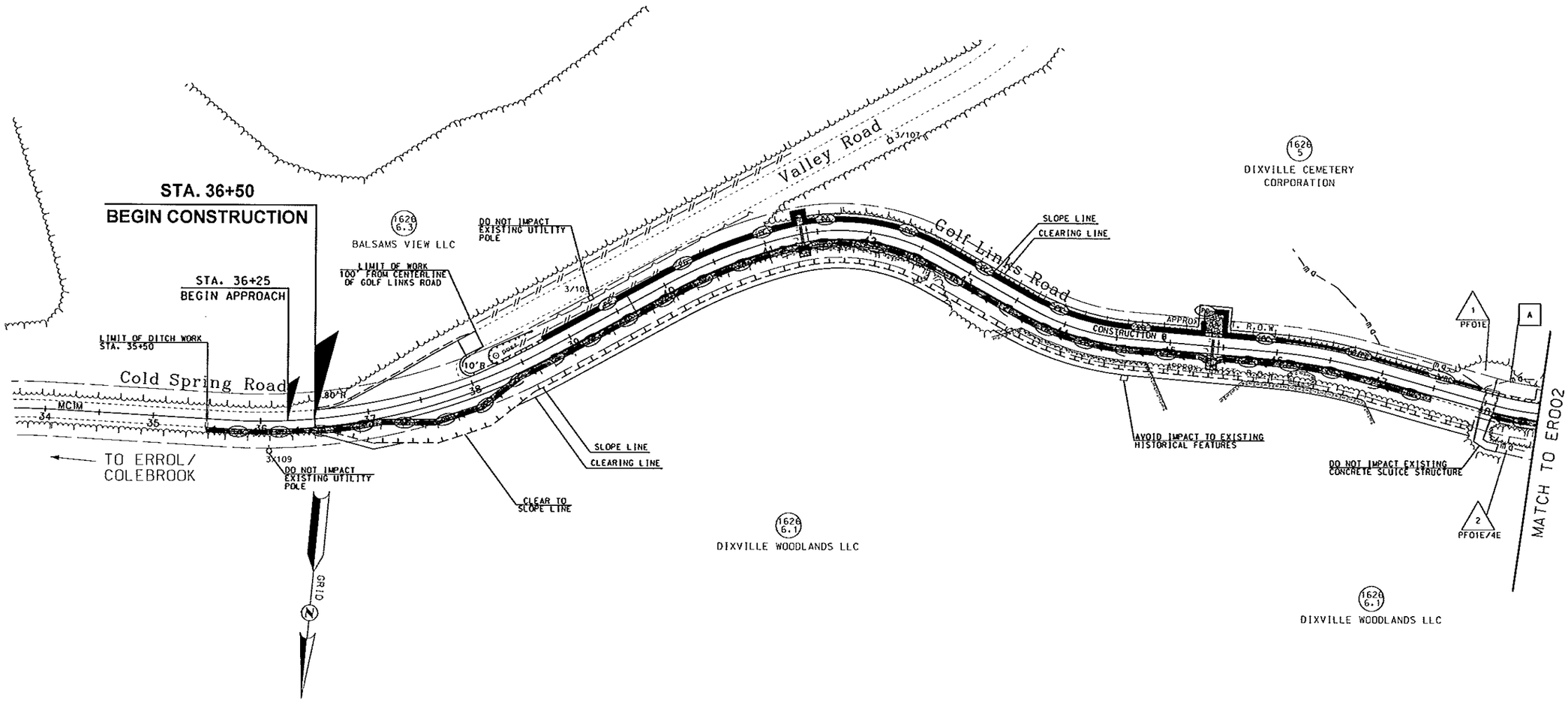
SDR PROCESSED		DATE
NEW DESIGN	M. BALDWIN	DATE 02/2016
SHEET CHECKED	C. SPETELUNAS	DATE 03/2016
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

WETLAND IMPACT PLANS

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
WET07	40518WET	40518	12	19



50 0 50 100
SCALE IN FEET

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	STATION	DESCRIPTION

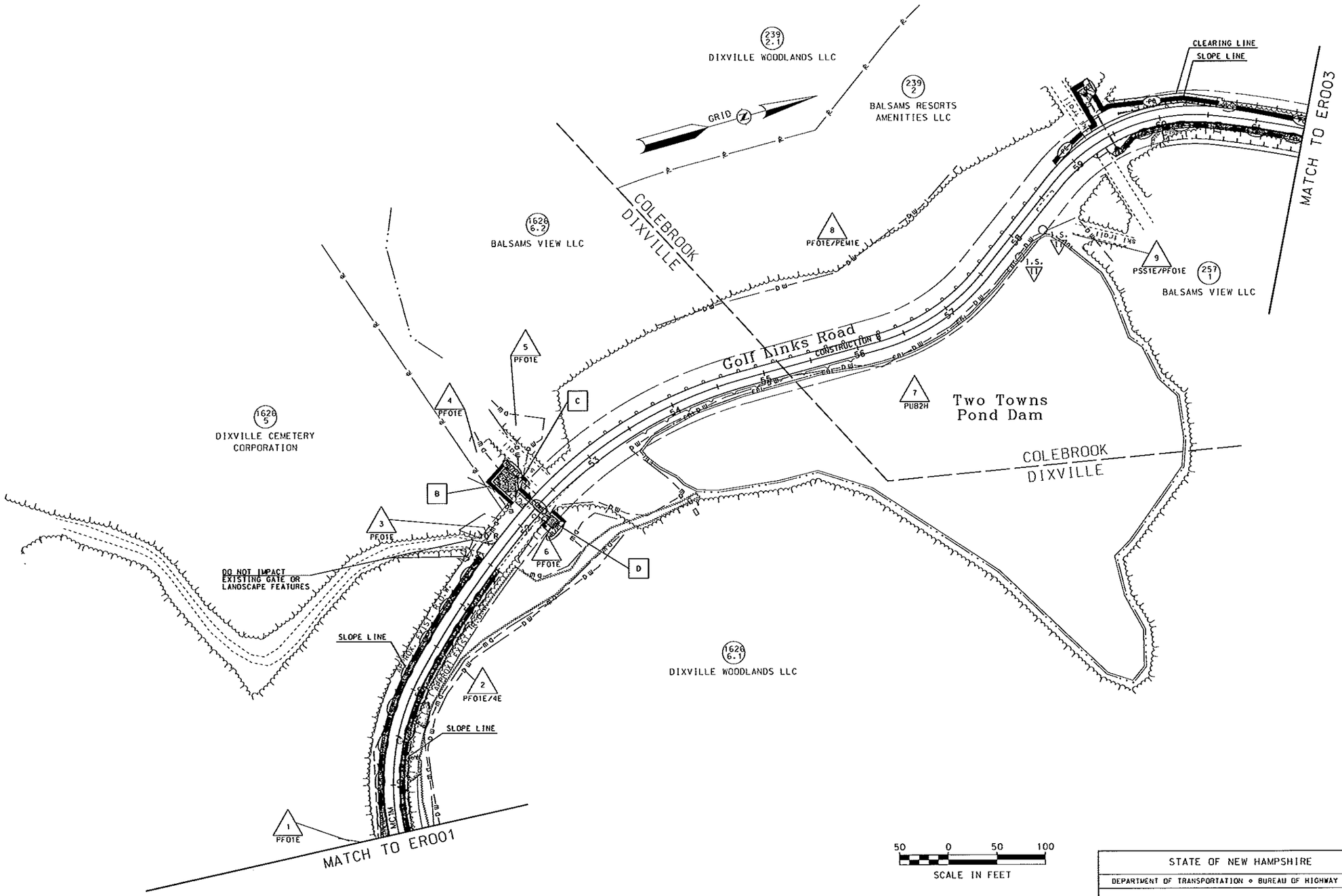
SDR PROCESSED		DATE
NEW DESIGN	M. BALDWIN	DATE 02/2016
SHEET CHECKED	C. SPETELUNAS	DATE 03/2016
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

EROSION CONTROL PLANS

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
ER001	40518WET	40518	13	19



REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

SQR PROCESSED		DATE	
NEW DESIGN	M. BALDWIN	DATE	02/2016
SHEET CHECKED	C. SPETELUNAS	DATE	03/2016
AS BUILT DETAILS		DATE	

STATE OF NEW HAMPSHIRE

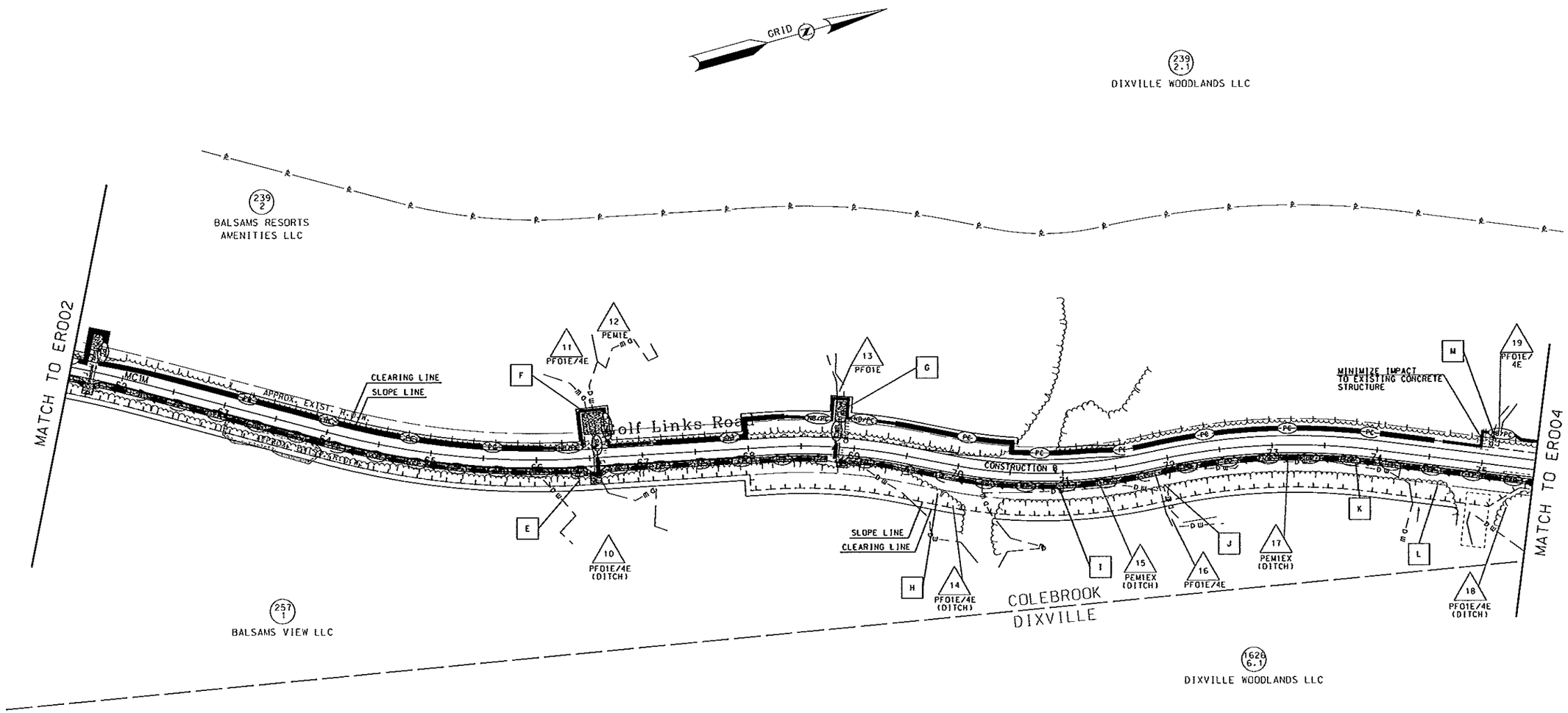
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

EROSION CONTROL PLANS

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
ER002	40518WET	40518	14	19

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION



50 0 50 100
SCALE IN FEET

PRELIMINARY PLANS
SUBJECT TO CHANGE
DATE 4/8/2016

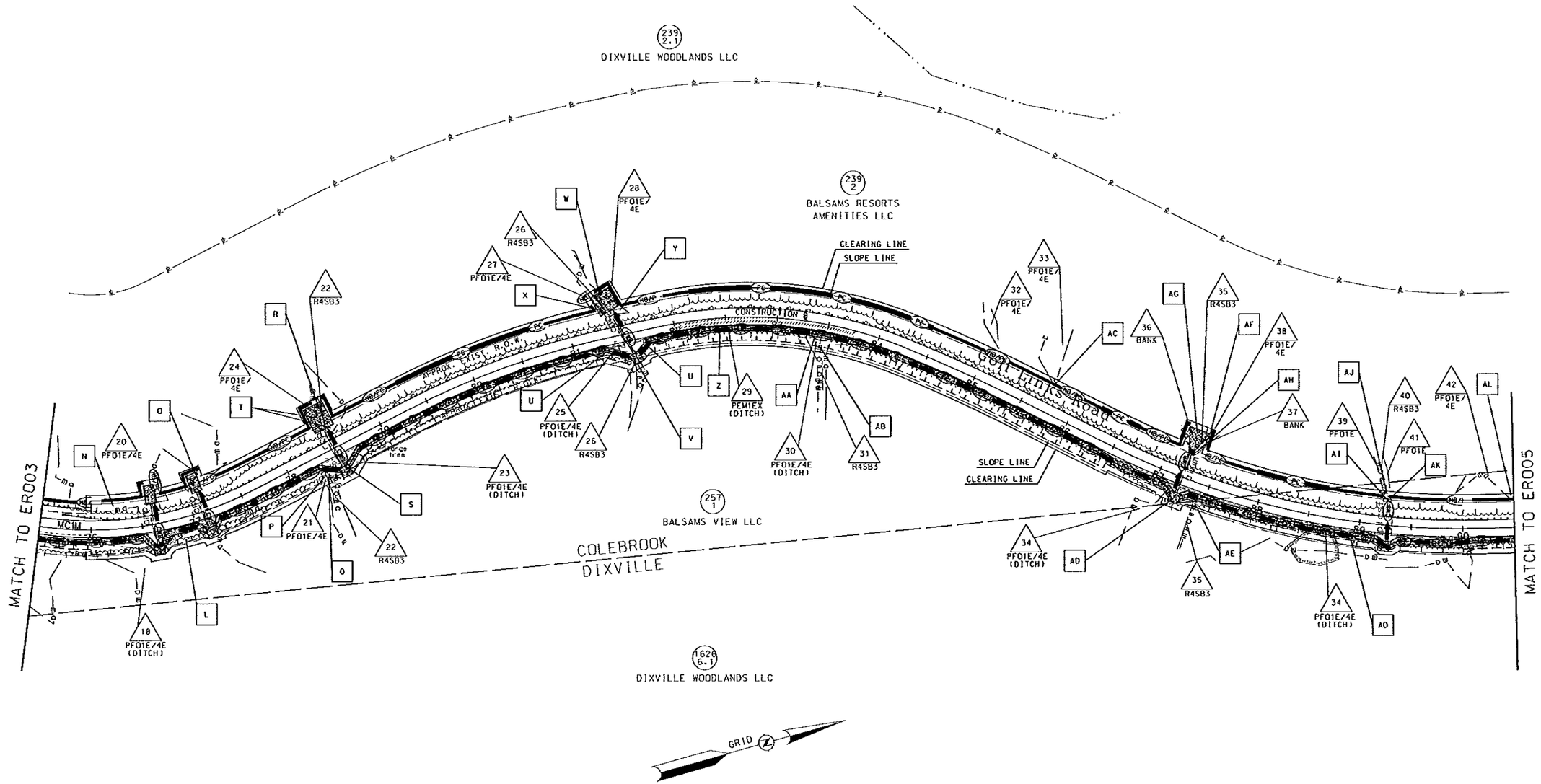
		DATE
SDR PROCESSED		
NEW DESIGN	M. BALDWIN	DATE 02/2016
SHEET CHECKED	C. SPETELUNAS	DATE 03/2016
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

EROSION CONTROL PLANS

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
ER003	40518WET	40518	15	19



STATE OF NEW HAMPSHIRE				
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN				
EROSION CONTROL PLANS				
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
ER004	40518WET	40518	16	19

REVISIONS AFTER PROPOSAL

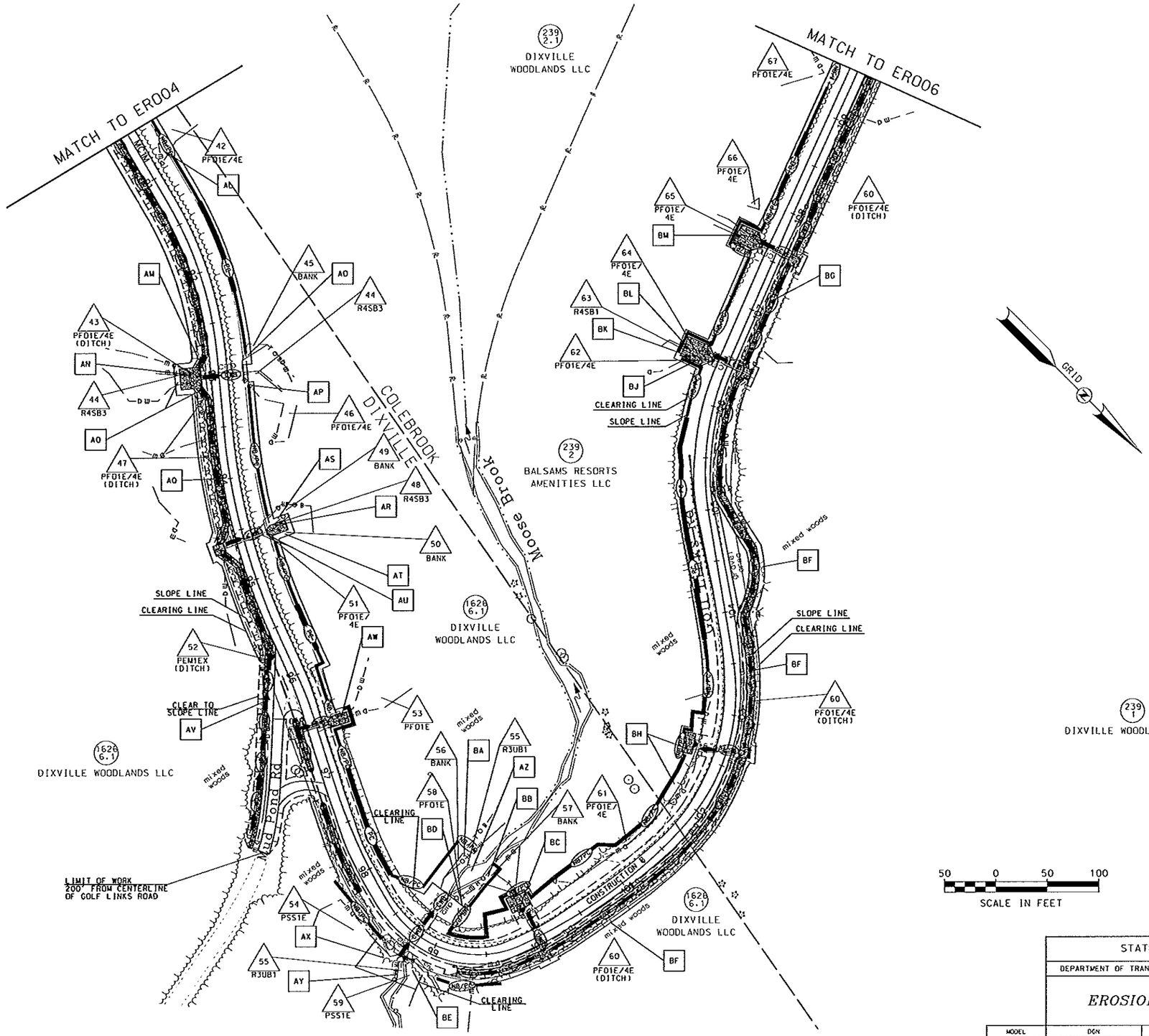
NUMBER	DATE	STATION	DESCRIPTION

		DATE
SDR PROCESSED		
NEW DESIGN	M. BALDWIN	DATE 02/2016
SHEET CHECKED	C. SPETELUNAS	DATE 03/2016
AS BUILT DETAILS		DATE

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

		DATE
SDR PROCESSED		
NEW DESIGN	M. BALDWIN	DATE 02/2016
SHEET CHECKED	C. SPETELUNAS	DATE 03/2016
AS BUILT DETAILS		DATE

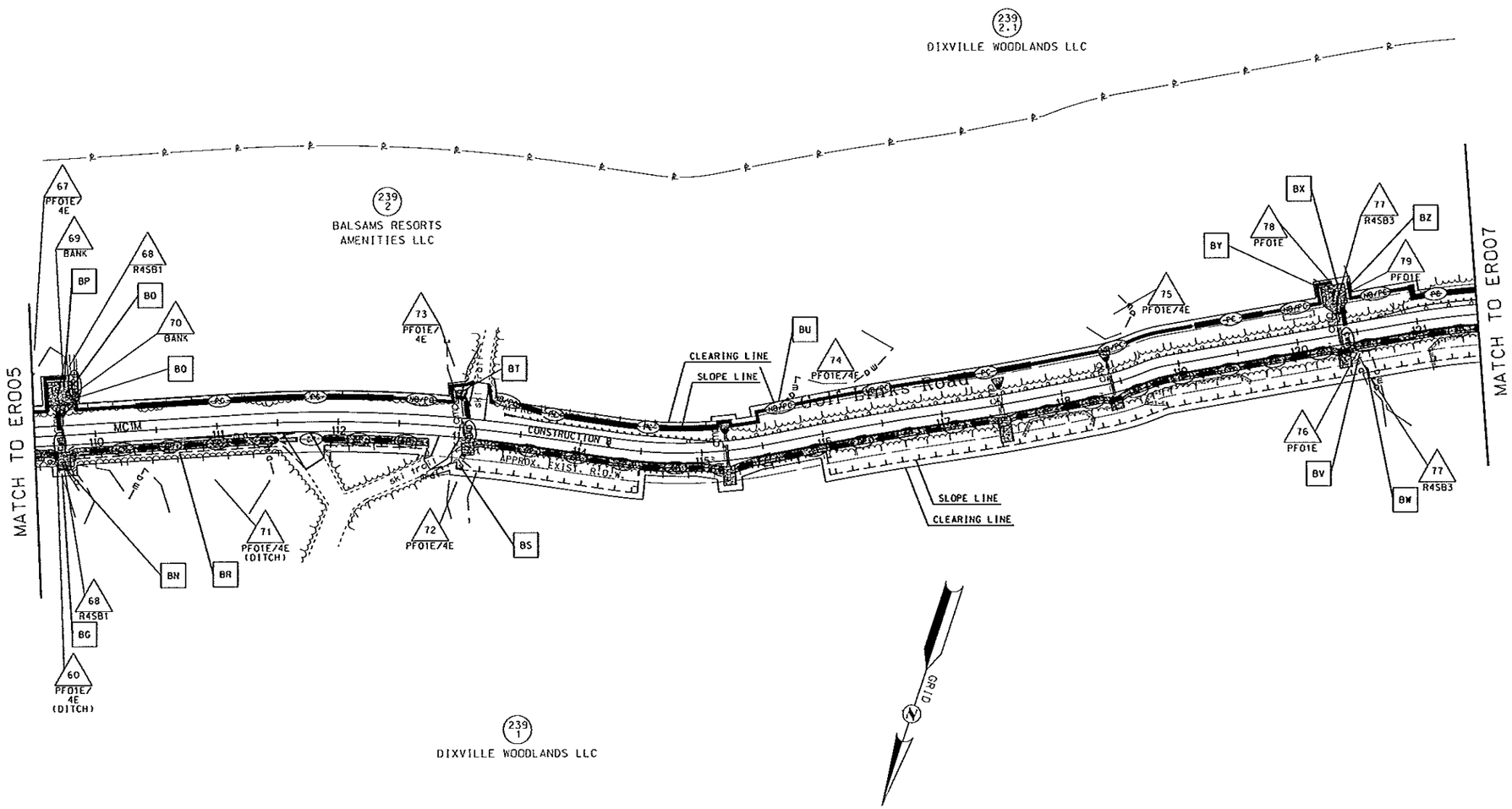


STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

EROSION CONTROL PLANS

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
ER005	40518WET	40518	17	19



50 0 50 100
SCALE IN FEET

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	STATION	DESCRIPTION

SOR PROCESSED		DATE
NEW DESIGN	M. BALDWIN	DATE 02/2016
SHEET CHECKED	C. SPETELUNAS	DATE 03/2016
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

EROSION CONTROL PLANS

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
ER006	40518WET	40518	18	19

239
2.1
DIXVILLE WOODLANDS LLC

239
2
BALSAMS RESORTS
AMENITIES LLC

239
1
DIXVILLE WOODLANDS LLC

MATCH TO ER006

CLEARING LINE
SLOPE LINE

CLEAR TO
SLOPE LINE
SLOPE LINE

Golf Links Road

APPROX. EXIST. D.O.T.
CONSTRUCTION B
APPROX. EXISTING DOT
Warehouse

MC1M
122
123
124
125
126
127
128
129
130
131
132
MC1M

SLOPE LINE
CLEARING LINE

DO NOT IMPACT
EXISTING STRUCTURE

LIMIT OF WORK
75' FROM CENTERLINE
OF GOLF LINKS ROAD

Golf Links Road Ext.

SLOPE LINE
CLEAR TO
SLOPE LINE

80
PF01E

DO NOT IMPACT
EXISTING STRUCTURE
OR TRANSFORMER PAD

transformer
pad
existing dam
overflow pipe

DO NOT IMPACT
EXISTING
CROSS-PIPES

STA. 131+75
END CONSTRUCTION

STA. 132+00
END APPROACH

CONSTRUCTION
STAGING
AREA

TO GOLF COURSE

81
PF01E

82
PUB2H

Rec Pond
Dam

Balsams
Country
Club

GRID
N

50 0 50 100
SCALE IN FEET

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

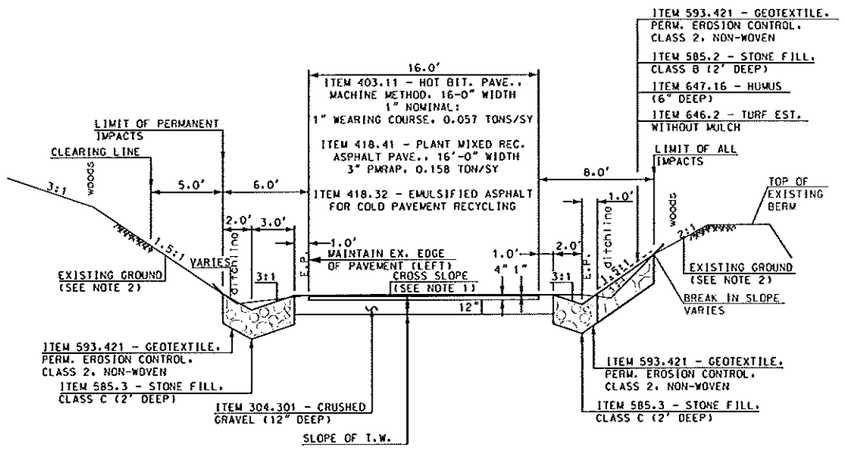
		DATE
SOR PROCESSED		
NEW DESIGN	M. BALDWIN	DATE 02/2016
SHEET CHECKED	C. SPETELUNAS	DATE 03/2016
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

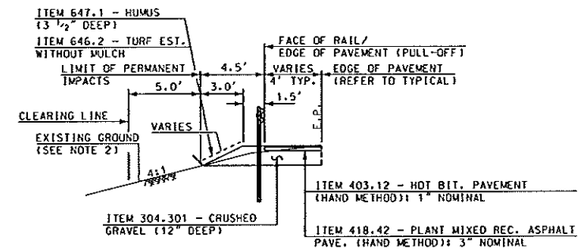
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

EROSION CONTROL PLANS

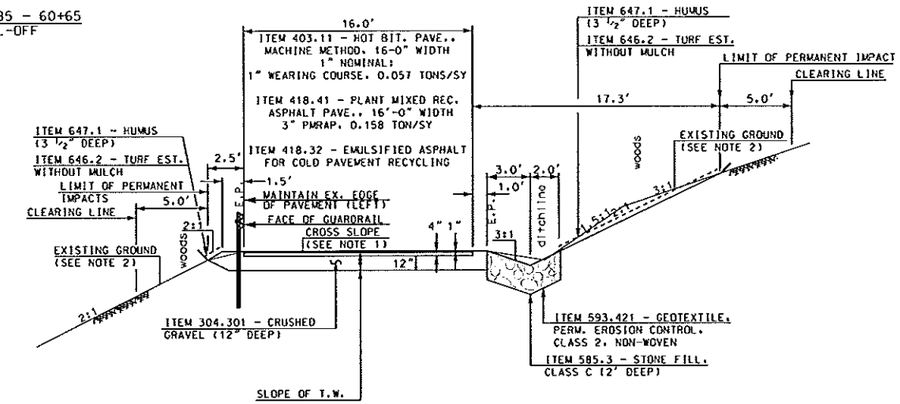
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
ER007	40518WET	40518	19	19



STA. 48+50 - 51+50

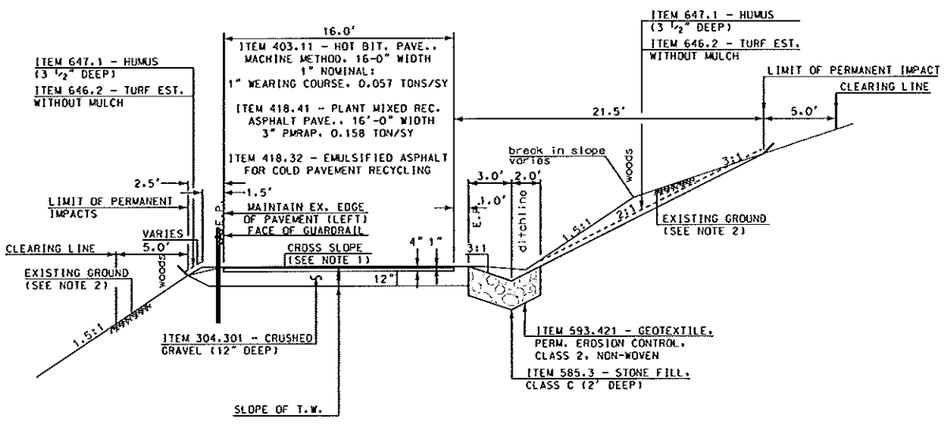


STA. 58+85 - 60+65
PULL-OFF

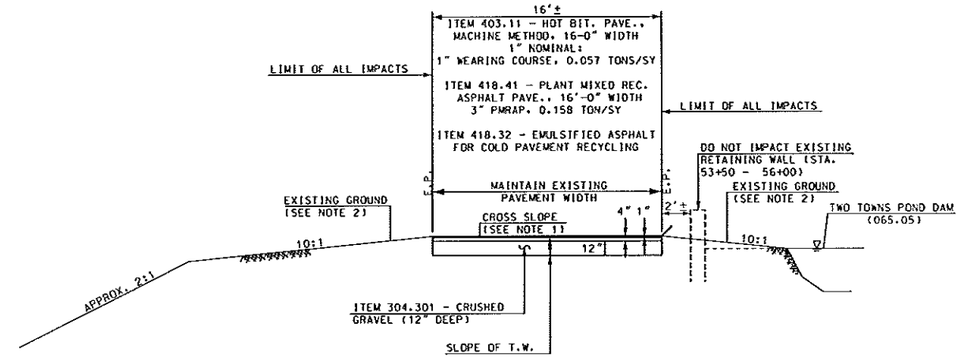


STA. 59+00 - 68+00*

* SEE PAVEMENT MATCH DETAIL FOR VERTICAL TRANSITION TAPER FROM STA. 62+00 - 68+00



STA. 36+50 - 48+50



STA. 51+50 - 59+00

GENERAL NOTES

1. CONSTRUCT TANGENT CROSS-SLOPES AT 2% ACROSS FULL PAVEMENT WIDTH, SLOPING TOWARDS THE DITCH. CONSTRUCT SUPERELEVATED SECTIONS THROUGH HORIZONTAL CURVES WITH A MAXIMUM 4% CROSS-SLOPE. TRANSITION BETWEEN TANGENT AND SUPERELEVATED CURVES AS DIRECTED BY THE ENGINEER. MATCH ALL CRUSHED GRAVEL AND (WIDENED) PAVED SHOULDER CROSS-SLOPES TO TRAVELWAY CROSS-SLOPES, EXCEPT WHERE NOTED.
2. EXISTING SLOPES BASED ON FIELD OBSERVATIONS, AND MAY VARY WITHIN TYPICAL SECTIONS.
3. STEEPEN PROPOSED SLOPES TO A MAXIMUM 1.5:1 (H:V) WHERE FLATTER 2:1 SLOPES WOULD EXTEND BEYOND THE ALLOWABLE WORK LIMITS, AS SHOWN ON THE TYPICAL. SEE SLOPE STABILIZATION DETAIL FOR TREATMENT OF ALL SLOPES STEEPER THAN A 2:1.

REVISIONS AFTER PROPOSAL				
NUMBER	DATE	STATION	STATION	DESCRIPTION

SDR PROCESSED		DATE
NEW DESIGN	TWC	DATE 3/2016
SHEET CHECKED	M. BALDWIN	DATE 03/2016
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

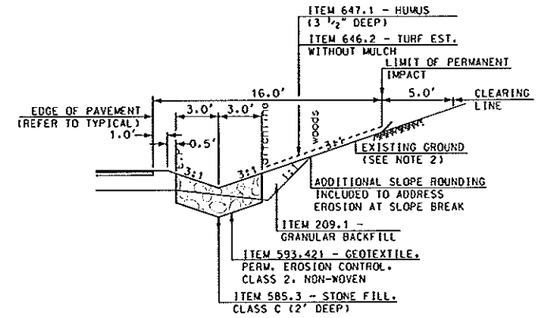
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

TYPICAL SECTIONS
GOLF LINKS ROAD
STA. 36+50 - 68+00

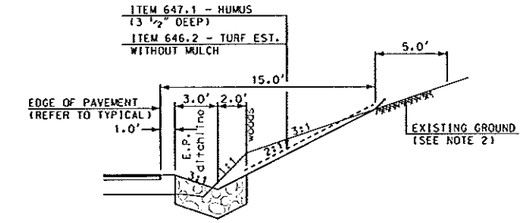
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
Default	40518Typ	40518	1	6

REVISIONS AFTER PROPOSAL

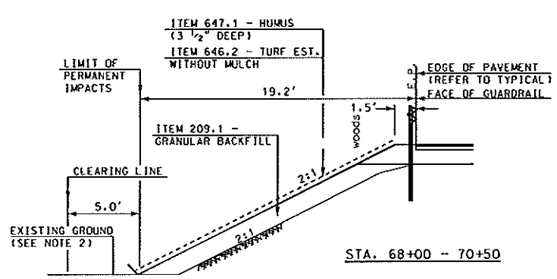
NUMBER	DATE	STATION	STATION	DESCRIPTION



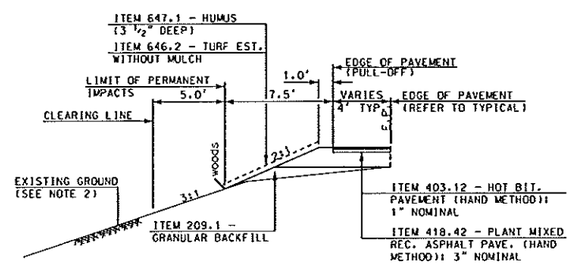
STA. 76+00 - 78+50



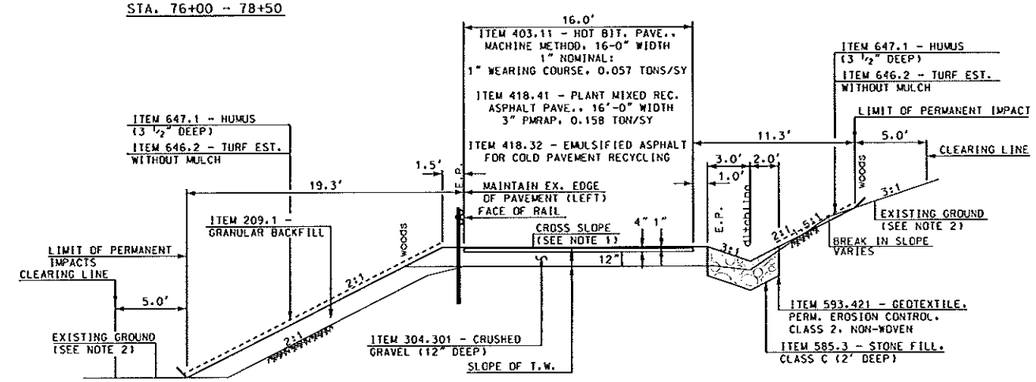
STA. 81+50 - 86+50



STA. 68+00 - 70+50

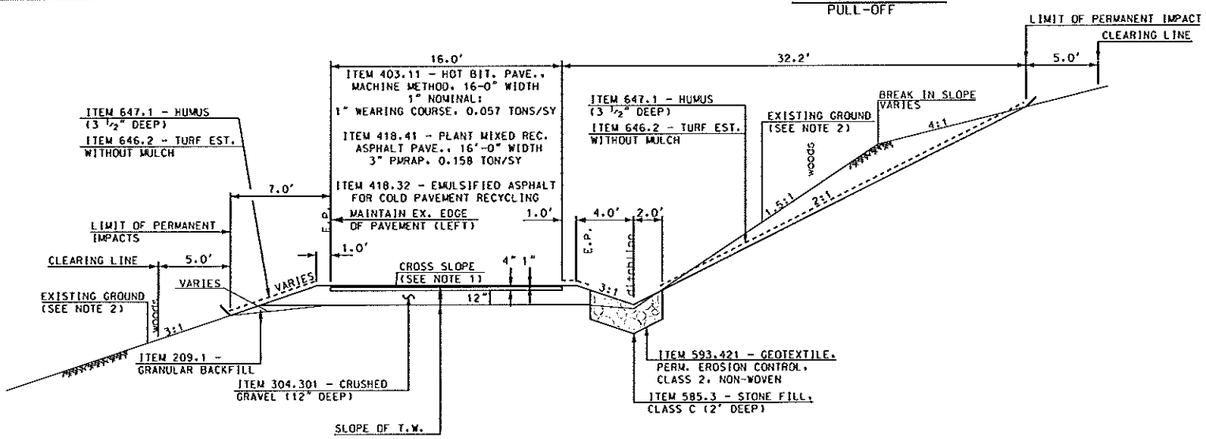


STA. 69+85 - 71+65
PULL-OFF



STA. 76+00 - 86+50

STA. 82+00 - 84+00 -
REMOVE EXISTING PAVEMENT FROM PROPOSED EDGE OF PAVEMENT TO 5' LEFT (OR AS DIRECTED BY THE ENGINEER). SHIM WITH CRUSHED GRAVEL TO EXISTING FINISHED GRADE. CONSTRUCT TYPICAL SECTION, AS SHOWN.



STA. 68+00 - 76+00

GENERAL NOTES

1. CONSTRUCT TANGENT CROSS-SLOPES AT 2% ACROSS FULL PAVEMENT WIDTH, SLOPING TOWARDS THE DITCH. CONSTRUCT SUPERELEVATED SECTIONS THROUGH HORIZONTAL CURVES WITH A MAXIMUM 4% CROSS-SLOPE. TRANSITION BETWEEN TANGENT AND SUPERELEVATED CURVES AS DIRECTED BY THE ENGINEER. MATCH ALL CRUSHED GRAVEL AND (WIDENED) PAVED SHOULDER CROSS-SLOPES TO TRAVELWAY CROSS-SLOPES, EXCEPT WHERE NOTED.
2. EXISTING SLOPES BASED ON FIELD OBSERVATIONS, AND MAY VARY WITHIN TYPICAL SECTIONS.
3. STEEPEN PROPOSED SLOPES TO A MAXIMUM 1.5:1 (H:V) WHERE FLATTER 2:1 SLOPES WOULD EXTEND BEYOND THE ALLOWABLE WORK LIMITS, AS SHOWN ON THE TYPICAL. SEE SLOPE STABILIZATION DETAIL FOR TREATMENT OF ALL SLOPES STEEPER THAN A 2:1.

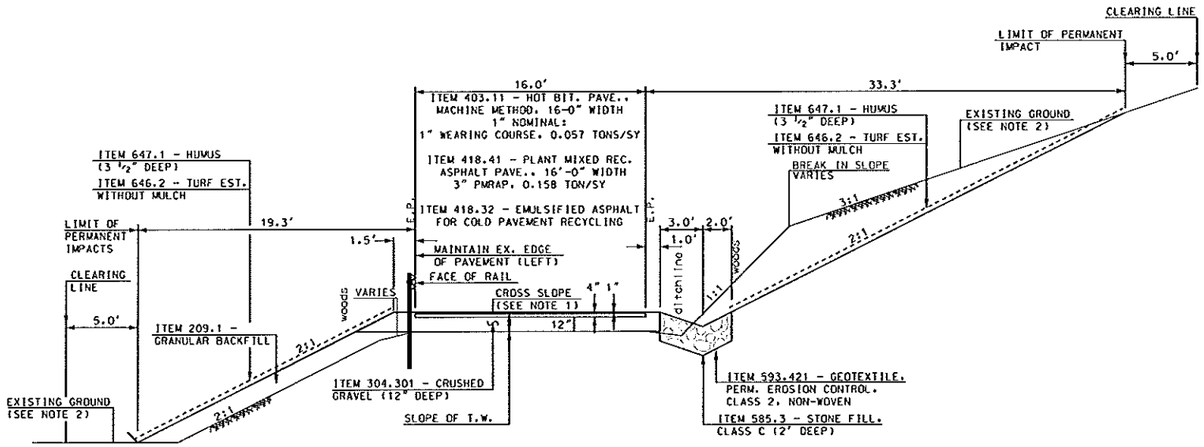
		DATE
SOR PROCESSED	TWC	
NEW DESIGN	TWC	DATE 3/2016
SHEET CHECKED	M. BALDWIN	DATE 03/2016
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

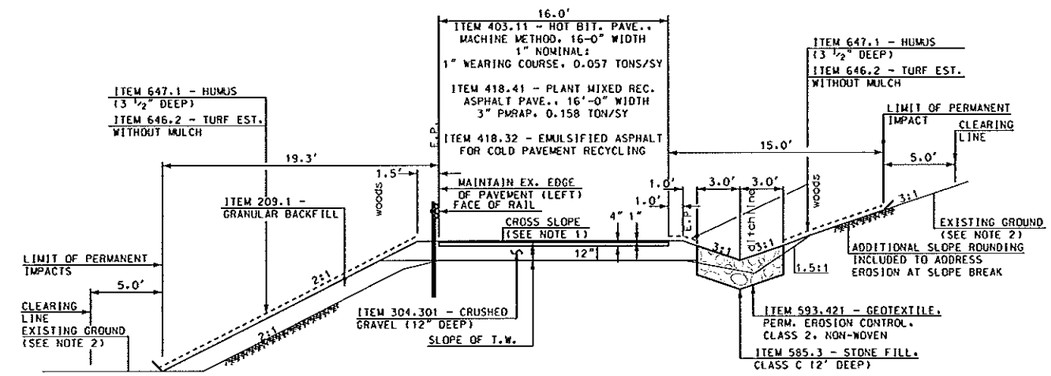
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

TYPICAL SECTIONS
GOLF LINKS ROAD
STA. 68+00 - 86+50

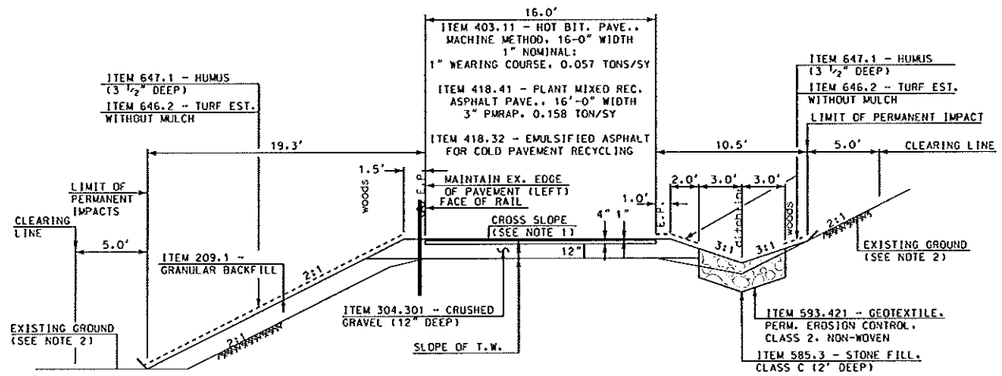
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
Default	40518Typ	40518	2	6



STA. 90+00 - 93+00



STA. 93+00 - 96+00



STA. 86+50 - 90+00

GENERAL NOTES

1. CONSTRUCT TANGENT CROSS-SLOPES AT 2% ACROSS FULL PAVEMENT WIDTH, SLOPING TOWARDS THE DITCH. CONSTRUCT SUPERELEVATED SECTIONS THROUGH HORIZONTAL CURVES WITH A MAXIMUM 4% CROSS-SLOPE. TRANSITION BETWEEN TANGENT AND SUPERELEVATED CURVES AS DIRECTED BY THE ENGINEER. MATCH ALL CRUSHED GRAVEL AND (WIDENED) PAVED SHOULDER CROSS-SLOPES TO TRAVELWAY CROSS-SLOPES, EXCEPT WHERE NOTED.
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3. STEEPEN PROPOSED SLOPES TO A MAXIMUM 1.5:1 (H:V) WHERE FLATTER 2:1 SLOPES WOULD EXTEND BEYOND THE ALLOWABLE WORK LIMITS, AS SHOWN ON THE TYPICAL. SEE SLOPE STABILIZATION DETAIL FOR TREATMENT OF ALL SLOPES STEEPER THAN A 2:1.

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	STATION	DESCRIPTION

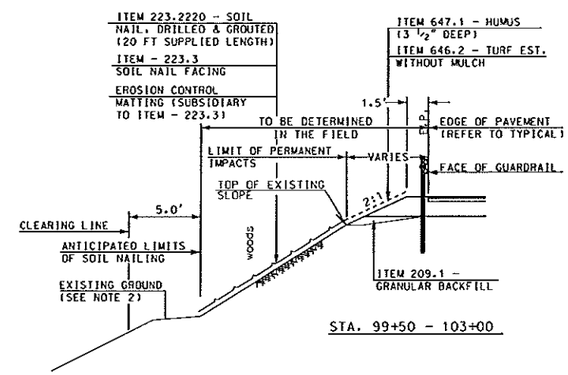
SDR PROCESSED	TWC	DATE 3/2016
NEW DESIGN		DATE 03/2016
SHEET CHECKED	M. BALDWIN	DATE
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

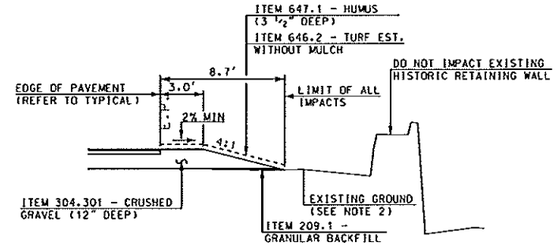
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

TYPICAL SECTIONS
GOLF LINKS ROAD
STA. 86+50 - 96+00

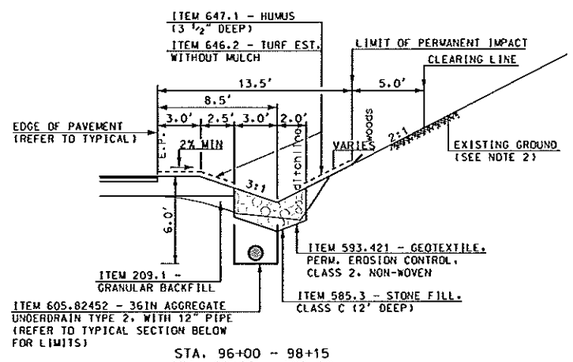
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
Default	40518Typ	40518	3	6



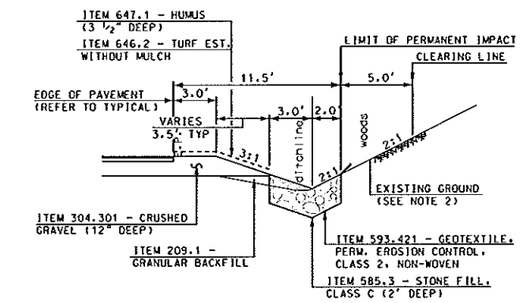
STA. 99+50 - 103+00



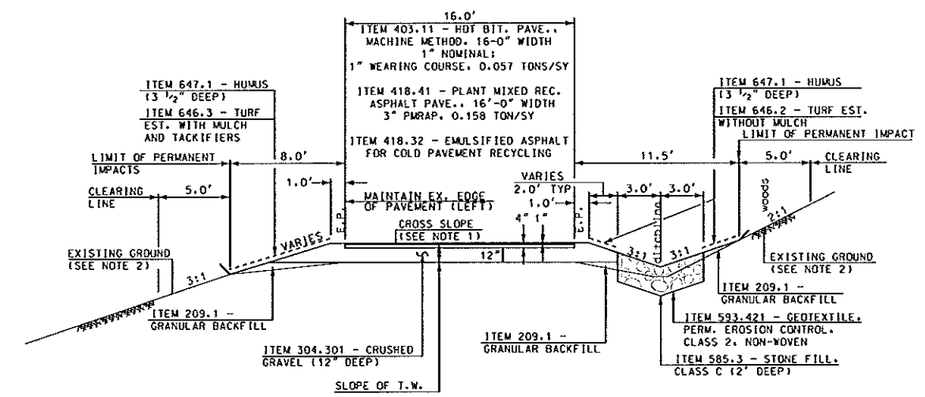
STA. 98+15 - 99+25



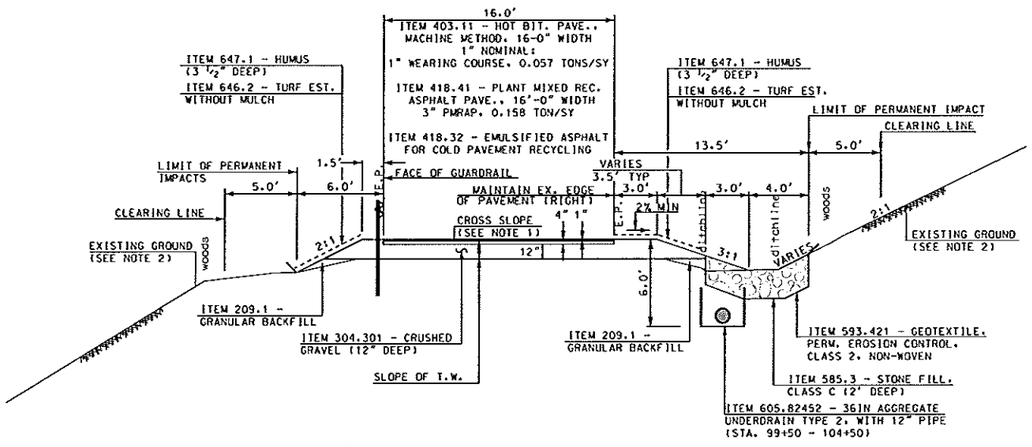
STA. 96+00 - 98+15
STA. 99+25 - 102+00



STA. 105+00 - 108+00



STA. 105+00 - 113+00



STA. 96+00 - 105+00

GENERAL NOTES

1. CONSTRUCT TANGENT CROSS-SLOPES AT 2% ACROSS FULL PAVEMENT WIDTH, SLOPING TOWARDS THE DITCH. CONSTRUCT SUPERELEVATED SECTIONS THROUGH HORIZONTAL CURVES WITH A MAXIMUM 4% CROSS-SLOPE. TRANSITION BETWEEN TANGENT AND SUPERELEVATED CURVES AS DIRECTED BY THE ENGINEER. MATCH ALL CRUSHED GRAVEL AND (WIDENED) PAVED SHOULDER CROSS-SLOPES TO TRAVELWAY CROSS-SLOPES, EXCEPT WHERE NOTED.

2. EXISTING SLOPES BASED ON FIELD OBSERVATIONS, AND MAY VARY WITHIN TYPICAL SECTIONS.

3. STEEPEN PROPOSED SLOPES TO A MAXIMUM 1.5:1 (H:V) WHERE FLATTER 2:1 SLOPES WOULD EXTEND BEYOND THE ALLOWABLE WORK LIMITS, AS SHOWN ON THE TYPICAL. SEE SLOPE STABILIZATION DETAIL FOR TREATMENT OF ALL SLOPES STEEPER THAN A 2:1.

NUMBER	DATE	STATION	STATION	DESCRIPTION
				REVISIONS AFTER PROPOSAL

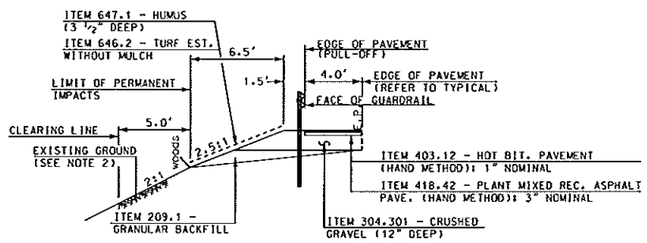
SDR PROCESSED	TWC	DATE 3/2016	
NEW DESIGN		DATE 03/2016	
SHEET CHECKED	W. BALDWIN		
AS BUILT DETAILS			DATE

STATE OF NEW HAMPSHIRE

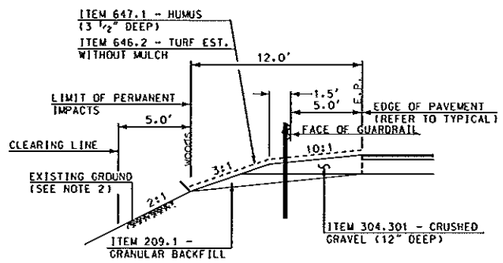
DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

TYPICAL SECTIONS
GOLF LINKS ROAD
STA. 96+00 - 113+00

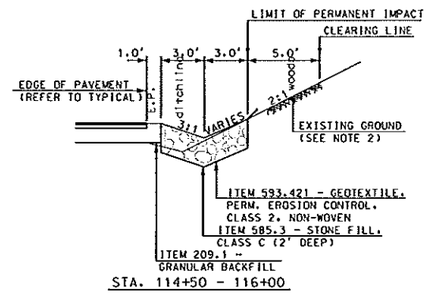
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
Default	40518Typ	40518	4	6



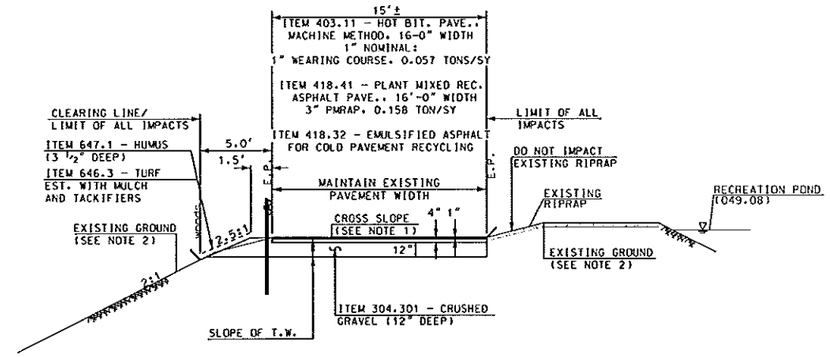
STA. 121+00 - 122+00
PULL-OFF



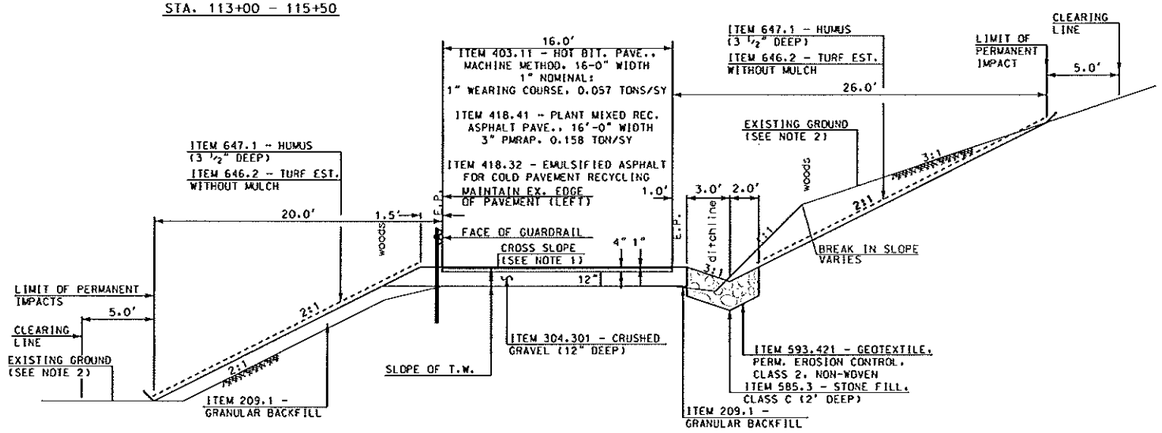
STA. 113+00 - 115+50



STA. 114+50 - 116+00

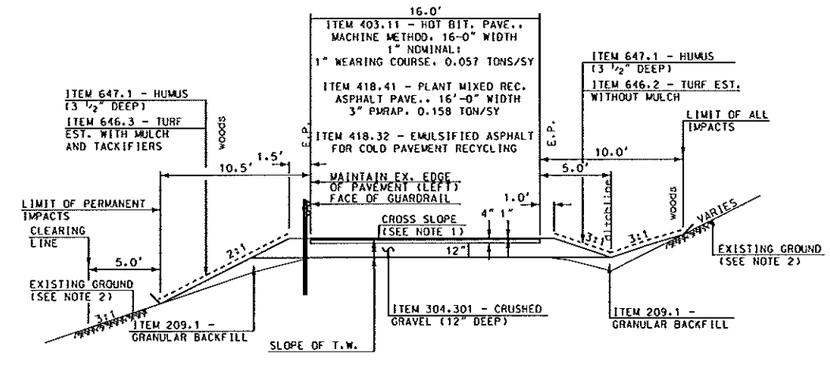


STA. 128+00 - 132+00



STA. 113+00 - 122+50*

* SEE PAVEMENT MATCH DETAIL FOR VERTICAL TRANSITION TAPER FROM STA. 122+00 - 128+00



STA. 122+50* - 128+00

* SEE PAVEMENT MATCH DETAIL FOR VERTICAL TRANSITION TAPER FROM STA. 122+00 - 128+00

GENERAL NOTES

1. CONSTRUCT TANGENT CROSS-SLOPES AT 2% ACROSS FULL PAVEMENT WIDTH, SLOPING TOWARDS THE DITCH. CONSTRUCT SUPERELEVATED SECTIONS THROUGH HORIZONTAL CURVES WITH A MAXIMUM 4% CROSS-SLOPE. TRANSITION BETWEEN TANGENT AND SUPERELEVATED CURVES AS DIRECTED BY THE ENGINEER. MATCH ALL CRUSHED GRAVEL AND (WIDENED) PAVED SHOULDER CROSS-SLOPES TO TRAVELWAY CROSS-SLOPES, EXCEPT WHERE NOTED.

2. EXISTING SLOPES BASED ON FIELD OBSERVATIONS, AND MAY VARY WITHIN TYPICAL SECTIONS.

3. STEEPEN PROPOSED SLOPES TO A MAXIMUM 1.5:1 (H:V) WHERE FLATTER 2:1 SLOPES WOULD EXTEND BEYOND THE ALLOWABLE WORK LIMITS, AS SHOWN ON THE TYPICAL. SEE SLOPE STABILIZATION DETAIL FOR TREATMENT OF ALL SLOPES STEEPER THAN A 2:1.

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

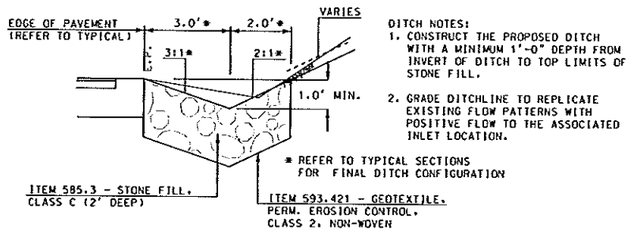
SDR PROCESSED	TWC	DATE	3/2016
NEW DESIGN		DATE	03/2016
SHEET CHECKED	M. BALDWIN		
AS BUILT DETAILS		DATE	

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

TYPICAL SECTIONS
GOLF LINKS ROAD
STA. 113+00 - 132+00

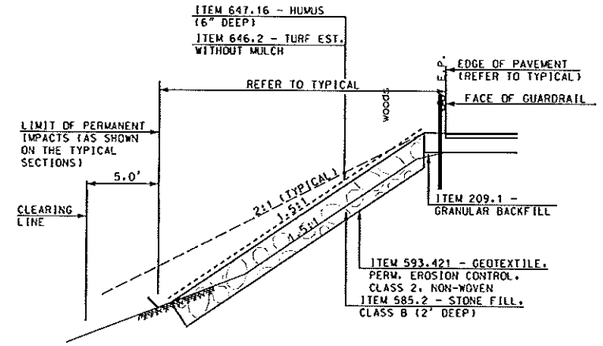
MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
Default	40518Typ	40518	5	6



DITCH NOTES:
1. CONSTRUCT THE PROPOSED DITCH WITH A MINIMUM 1'-0" DEPTH FROM INVERT OF DITCH TO TOP LIMITS OF STONE FILL.
2. GRADE DITCHLINE TO REPLICATE EXISTING FLOW PATTERNS WITH POSITIVE FLOW TO THE ASSOCIATED INLET LOCATION.

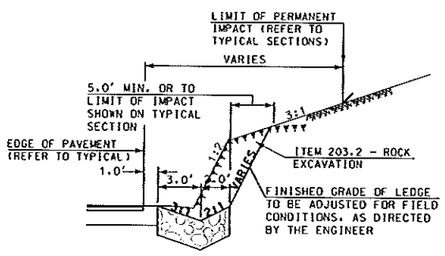
* REFER TO TYPICAL SECTIONS FOR FINAL DITCH CONFIGURATION

STONE LINED DITCH DETAIL

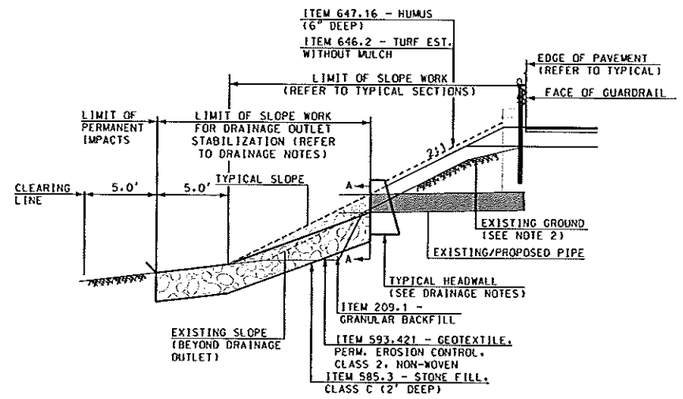


SLOPE STABILIZATION DETAIL

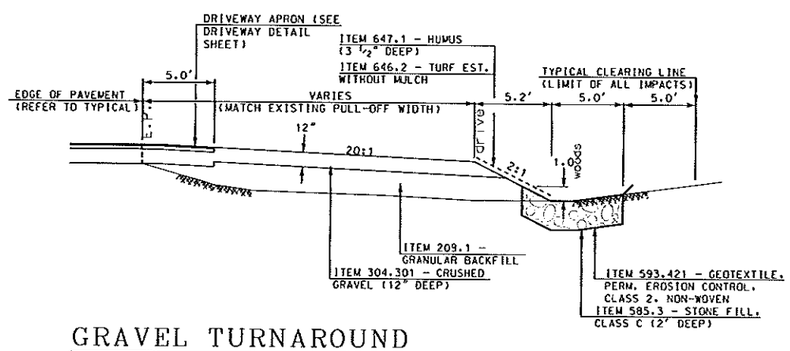
NOTE:
USE ONLY WHERE FLATTER 2:1 SLOPES CANNOT BE CONSTRUCTED WITHIN THE PROPOSED IMPACT AREA. MAXIMUM PROPOSED SLOPES STABILIZED WITH STONE SHALL BE 1.5:1, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.



CUT SLOPE ROCK EXCAVATION DETAIL



DRAINAGE OUTLET STONE APRON DETAIL



GRAVEL TURNAROUND STA. 103+75 - 105+20

REVISIONS AFTER PROPOSAL

NUMBER	DATE	STATION	STATION	DESCRIPTION

SDR PROCESSED	TWC	DATE 3/2016
NEW DESIGN		DATE 03/2016
SHEET CHECKED	M. BALDWIN	DATE
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF HIGHWAY DESIGN

MISCELLANEOUS DETAILS
GOLF LINKS ROAD

MODEL	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
Default	40518Typ	40518	6	6