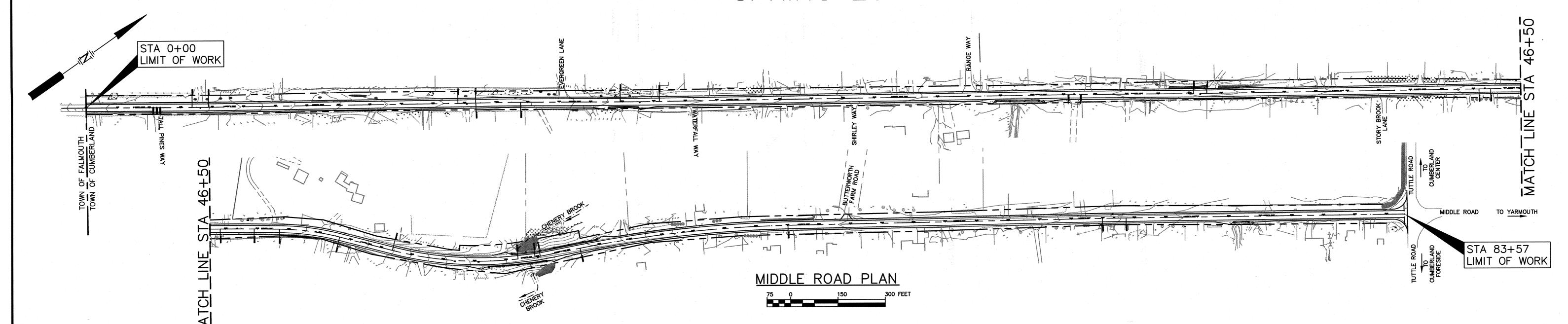
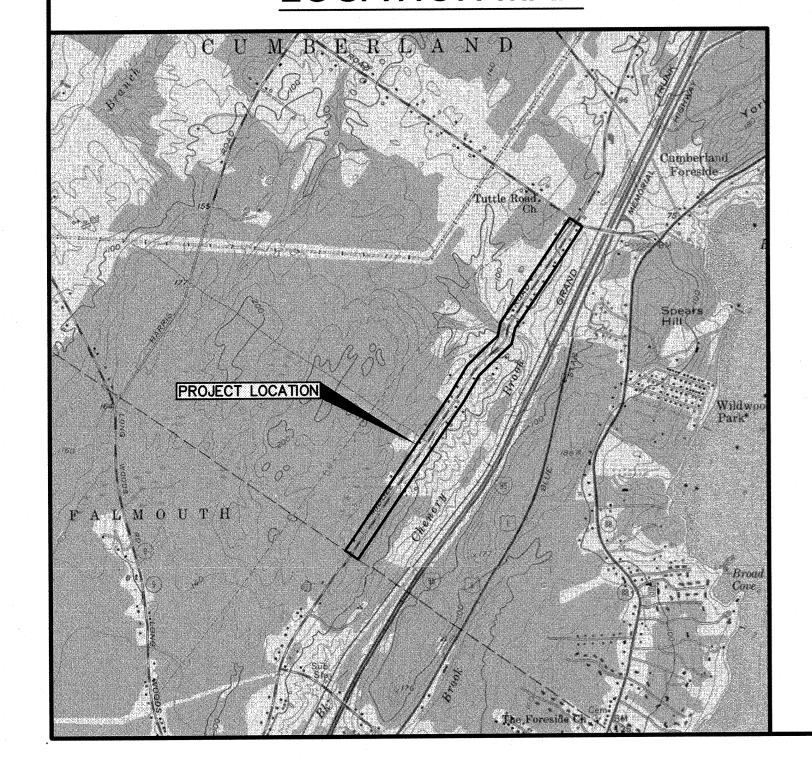
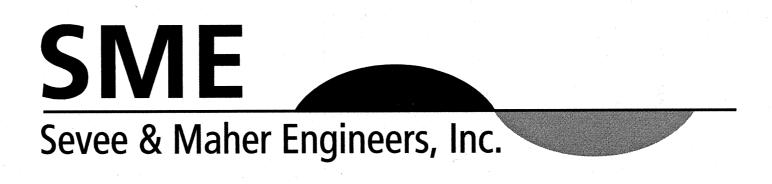
TOWN OF CUMBERLAND MIDDLE ROAD IMPROVEMENTS CUMBERLAND, MAINE

CUMBERLAND COUNTY
PROJECT LENGTH: 1.6 MILES
ROADWAY IMPROVEMENT PROJECT
SPRING 2017



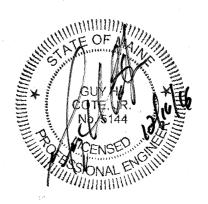
LOCATION MAP



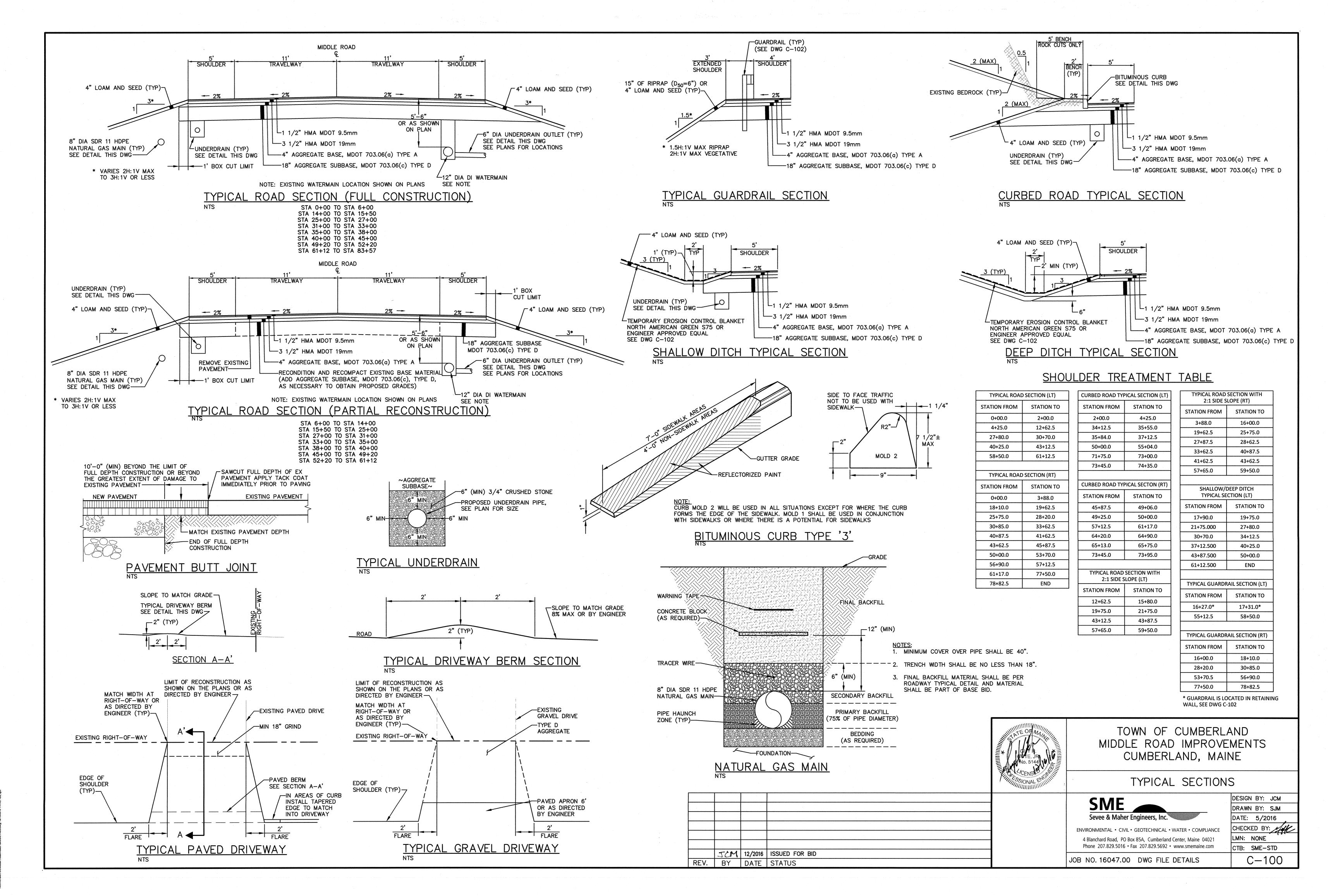


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DWG NO
C-100
C-101
C-102 & C-103
C-104
C-105
C-106
C-200 TO C-213
C-214 TO C-244



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GENERAL NOTES:

- EXISTING TOPOGRAPHY FROM PLAN ENTITLED "EXISTING CONDITIONS SURVEY FOR TOWN OF CUMBERLAND, MIDDLE ROAD, CUMBERLAND MAINE" BY BOUNDARY POINTS PROFESSIONAL LAND SURVEYORS, INC. DATED 2-15-2015. SEE SURVEYORS NOTES ON THIS DWG FOR MORE INFORMATION.
- WETLAND BOUNDARIES DELINEATED BY AL FRICK OF FALMOUTH, MAINE, DATED 4/1/2016.
- ALL SITE AND CONSTRUCTION ACTIVITIES SHALL BE IN COMPLIANCE WITH MEDEP BEST MANAGEMENT PRACTICES AND EXISTING FEDERAL, STATE, AND LOCAL PERMITS AND PERMITTING REQUIREMENTS FOR THE SITE.
- THE TOWN OF CUMBERLAND SHALL HAVE THE RIGHT AND AUTHORITY TO DETERMINE THE ACCEPTABILITY OF WORK AND MATERIALS IN PROGRESS OR COMPLETED. THE TOWN OF CUMBERLAND SHALL HAVE THE RIGHT TO REJECT ANY WORK OR MATERIALS WHICH DO NOT CONFORM, IN ITS SOLE OPINION, TO THE PLANS OR SPECIFICATIONS.
- ALL SIGNING, SIGNAL AND STRIPING MATERIALS AND PLACEMENT SHALL CONFORM TO THE MAINEDOT STANDARD SPECIFICATIONS, NOVEMBER 2014 EDITION, SUPPLEMENTAL SPECIFICATIONS AND STANDARD DETAILS AND WITH THE FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES". 2009 EDITION.
- ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED. UNLESS OTHERWISE NOTED, SEEDING METHOD NO. 1 SHALL BE UTILIZED ON ALL LAWNS AND DEVELOPED AREAS, AND SEEDING METHOD NO. 2 SHALL BE USED IN ALL OTHER LOCATIONS. LOAM SHALL BE PLACED TO A MINIMUM DEPTH OF 4" IN METHOD NO. 1 AREAS, AND 2" IN ALL OTHER AREAS UNLESS OTHERWISE NOTED OR
- DISPOSITION OF SURPLUS MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. SURPLUS MATERIAL SHALL NOT BE DISPOSED OF ON THE PROJECT SITE, DISPOSITION SHALL BE MADE ONLY AT WASTE AREAS WHICH ARE LICENSED TO ACCEPT SUCH MATERIALS, UNLESS THE MATERIALS CAN BE INCORPORATED IN FILLS IN OTHER PROJECTS OF THE CONTRACTOR, ALL WASTE AREAS SHALL BE APPROVED BY THE RESIDENTS.
- EXCAVATIONS ACCOMPLISHED AS PART OF THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUBPART P OF 29 CRF PART 1926.650-.652 (CONSTRUCTION STANDARD FOR EXCAVATIONS).
-). THE CONTRACTOR SHALL CONTACT DIG-SAFE AND APPROPRIATE AUTHORITIES PRIOR TO ANY SUBSURFACE ACTIVITIES.
- 10. IF FOUNDATION MATERIAL IS REQUIRED UNDER CULVERTS, IT SHALL MEET THE REQUIREMENTS FOR GRANULAR BORROW UNDERWATER BACKFILL.
- 11. ALL CLEARING AND TRIMMING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT WILL BE MADE. THE ACTUAL LINES FOR CLEARING AND TRIMMING SHALL BE ESTABLISHED BY THE CONTRACTOR AND APPROVED IN THE FIELD BY
- 12. BUTT JOINTS SHALL BE USED AT ALL LOCATIONS WHERE THE PROPOSED PAVEMENT MEETS EXISTING PAVEMENT.
- 13. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING OPENING PERMITS. CONTRACTOR SHALL BE RESPONSIBLE APPLYING FOR AND ALL COSTS ASSOCIATED WITH OBTAINING OPENING PERMITS FROM THE TOWN IF REQUIRED.
- 14. MAINTENANCE OF TRAFFIC SHALL BE PER THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", 2009 EDITION.
- 15. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN ALL NECESSARY BARRICADES, LIGHTS, WARNING SIGNS AND OTHER DEVICES TO SAFEGUARD TRAFFIC PROPERLY WHILE WORK IS IN PROGRESS FOR THE DURATION OF THE PROJECT.
- 16. DRIVEWAY ACCESSES SHALL BE MAINTAINED AT ALL TIMES.
- 17. THE CONTRACTOR SHALL SUBMIT A PLAN TO CONTROL TRAFFIC DURING THE PERIOD OF CONSTRUCTING THE IMPROVEMENTS TO THE ENGINEER AND THE TOWN OF CUMBERLAND FOR APPROVAL WHICH CONFORMS TO THE FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", 2009 EDITION. THE CONTRACTOR MUST MAINTAIN TWO WAY TRAFFIC WHENEVER PRACTICABLE AND MUST MAINTAIN AT LEAST ONE WAY ALTERNATING TRAFFIC FLOW AT ALL TIMES. ALL TRAFFIC SHALL BE CONTROLLED DURING THE PERIOD OF CONSTRUCTION IN ACCORDANCE WITH THE TRAFFIC CONTROL PLAN.
- 8. THE CONTRACTOR SHALL COMPLY WITH THE INSURANCE REQUIREMENTS OUTLINED UNDER SECTION 110 IN THE DEPARTMENT'S STANDARD SPECIFICATIONS NOVEMBER 2014 EDITION (HEREAFTER STANDARD SPECIFICATIONS). MINIMUM INSURANCE REQUIREMENTS SHALL INCLUDE AT LEAST WORKERS' COMPENSATION INSURANCE, COMMERCIAL GENERAL LIABILITY AND AUTOMOBILE LIABILITY INSURANCE AS DEFINED THEREIN. THE CONTRACTOR SHALL PROVIDE THE DEPARTMENT WITH SATISFACTORY PROOF OF SUCH INSURANCE COVERAGE. IN THE EVENT THAT SUCH INSURANCE IS TERMINATED OR CANCELED WITHOUT BEING REPLACED WITH COMPARABLE INSURANCE, THE DEPARTMENT MAY SUSPEND OR TERMINATE THE CONSTRUCTION OF ALL TRAFIFIC IMPROVEMENTS IN PROGRESS AT THE TIME OF SUCH TERMINATION OR CANCELLATION.
- 9. THE CONTRACTOR SHALL PROVIDE THE TOWN WITH A PERFORMANCE BOND, CERTIFIED CHECK OR OTHER NEGOTIABLE SECURITY ACCEPTABLE TO THE OWNER IN THE FULL AMOUNT OF THE COST TO CONSTRUCT SUCH IMPROVEMENTS WHICH CONFORMS TO THE GENERAL REQUIREMENTS FOR SUCH SURETY AS OUTLINED UNDER SECTION 110.2 IN THE STANDARD SPECIFICATIONS.
- 20. THE CONTRACTOR SHALL PROVIDE THE TOWN OF CUMBERLAND WITH A SCHEDULE OF WORK FOR CONSTRUCTING THE IMPROVEMENTS, AND AN EMERGENCY CONTACT LIST.
- 21. ALL IMPROVEMENTS SHALL BE CONSTRUCTED AS SHOWN ON THE FINAL PLANS IN ACCORDANCE WITH THE MAINEDOT STANDARD SPECIFICATIONS NOVEMBER 2014 EDITION, DETAILS AND ANY REVISIONS.
- 22. THE CONTRACTOR SHALL ALLOW OR ARRANGE FOR THE TOWN OF CUMBERLAND, ITS INSPECTORS, AGENTS, EMPLOYEES CONTRACTORS OR INVITED GUESTS, TO ENTER UPON ANY LAND OWNED OR CONTROLLED BY THE CONTRACTOR OUTSIDE OF AND ADJOINING THE RIGHT-OF-WAY OF ANY HIGHWAY OR PUBLIC WAY. WHICH MAY BE USED FOR CONSTRUCTION OF THE TRAFFIC IMPROVEMENTS, AT ANY AND ALL TIMES AND FOR ANY AND ALL PURPOSES NECESSARY OR INCIDENTAL TO SUCH INSPECTION OR
- 23. THE PLACEMENT OF BITUMINOUS PAVING MATERIALS SHALL BE SUBJECT TO ALL OF THE WEATHER AND SEASONAL LIMITATIONS OUTLINED UNDER MAINE DOT STANDARD SPECIFICATIONS, NOVEMBER 2014 EDITION DIVISION 400, PAVEMENTS, SECTION 401,
- 24. ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO REMOVE AND RESET POST SIGNS, MAILBOXES, AND POLES SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT BID PRICES. IF ANY DAMAGE OCCURS TO POSTS, SIGNS, MAILBOXES OR ASSOCIATED HARDWARE DURING REMOVAL, STORAGE OR RESETTING, THE DAMAGED MATERIALS SHALL BE REPLACED BY THE CONTRACTOR, TO THE SATISFACTION OF THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.
- 25. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR THE ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. UNDERGROUND FACILITIES INDICATED ON THE CROSS SECTIONS HAVE BEEN CARRIED OVER FROM THE PLAN VIEW DATA AND MAY ALSO INCLUDE FURTHER APPROXIMATIONS OF THE ELEVATIONS BASED UPON STRAIGHT LINE INTERPOLATION FROM THE NEAREST MANHOLES, GATE VALVES, OR TEST PITS. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE HIS WORK AND SCHEDULE AND THE UTILITY RELOCATION WORK WITH THE PROPER UTILITY COMPANY. UTILITY CONTACTS FOR THIS PROJECT ARE:

CENTRAL MAINE POWER CONTACT: THOMPSON ATWOOD TELEPHONE: (207) 791-1022 CENTRAL MAINE POWER 162 CANCO ROAD

TIME WARNER CABLE CONTACT: MARK PELLETIER TELEPHONE: (207) 253-2324 TIME WARNER CABLE 118 JOHNSON ROAD PORTLAND, MAINE 04102

CONTACT: MR. MARTY PEASE TELEPHONE: (207) 797-1119 FAIRPOINT 5 DAVIS FARM ROAD PORTLAND, MAINE 04103

PORTLAND, MAINE 04103

PORTLAND WATER DISTRICT CONTACT: JAY ARNOLD TELEPHONE: (207) 774-5961 P.O. BOX 3553 225 DOUGLASS STREET

PORTLAND, MAINE 04530

- 26. ALL MATERIAL SCHEDULES SHOWN ON THE PLANS ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL PREPARE HIS OWN MATERIAL SCHEDULES BASED UPON HIS PLAN REVIEW. ALL SCHEDULES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS OR PERFORMING WORK.
- 27. PROPERTY LINE AND R.O.W. MONUMENTS SHALL NOT BE DISTURBED BY CONSTRUCTION. IF DISTURBED, THEY SHALL BE RESET TO THEIR ORIGINAL LOCATIONS AT THE CONTRACTOR'S EXPENSE, BY A MAINE PROFESSIONAL LAND SURVEYOR.
- 28. EXISTING CONDITIONS BASED ON SURVEY COMPLETED BY BOUNDARY POINTS.
- 29. CONSTRUCTION SHALL NOT COMMENCE UNTIL AUTHORIZED BY THE TOWN AND THE ENGINEER (SEE NOTE 1).
- 30. THE CONTRACTOR SHALL SUBMIT A QC PLAN AS OUTLINED UNDER MAINE DOT STANDARD SPECIFICATIONS, NOVEMBER 2014 EDITION DIVISION 400, PAVEMENTS, SECTION 401, PARAGRAPH 401.19, FOR APPROVAL BY THE TOWN OF CUMBERLAND AND THE ENGINEER. THE ACCEPTANCE METHOD SHALL BE METHOD D. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE OF ANY PAVING. THE DENSITY REQUIREMENTS AND DISINCENTIVE SHALL APPLY AS OUTLINED IN SECTION 401.204 OF THE MAINE DOT, SECTION 401. CORES WILL BE REQUIRED AT LOCATIONS REQUESTED BY THE ENGINEER. THE TOWN MAY TAKE SAMPLES FOR TESTING AT THEIR DISCRETION TO DETERMINE IF THE MIX IS WITHIN THE TOLERANCES LISTED IN TABLE 8 OF SECTION 401.204.
- 31. ALL PAVEMENT MARKINGS THAT CONFLICT WITH THE PROPOSED SHALL BE REMOVED IN ACCORDANCE WITH THE MAINEDOT SPECIFICATIONS.
- 32. ALL NEW SIGNS SHALL HAVE HIGH INTENSITY RETRO—REFLECTIVE SHEETING. WHEN WOOD POSTS ARE USED THEY SHALL BE PRESSURE TREATED.
- 33. A TACK COAT OF EMULSIFIED ASPHALT, RS-1 OR HFMS-1 SHALL BE APPLIED TO ANY EXISTING PAVEMENT AT A RATE OF APPROXIMATELY 0.025 GALLON/S.Y., AND ON MILLED PAVEMENT APPROXIMATELY 0.050 GALLONS/S.Y. A FOG COAT OF EMULSIFIED ASPHALT SHALL BE BETWEEN SHIM/INTERMEDIATE COURSE AND THE SURFACE COURSE, AT A RATE NOT TO EXCEED 0.025
- 34. THE CONTRACTOR SHALL COMPLETE THE WORK WITHIN RIGHTS-OF-WAY OR EASEMENTS, EXCEPT AS SHOWN ON THE PLANS AND WILL BE RESPONSIBLE IF TRESPASSING OCCURS ON PRIVATE PROPERTY.
- 35. ALL EXISTING WATER VALVE COVERS AND ANY OTHER EXISTING UTILITIES SHALL BE ADJUSTED TO GRADE BY THE APPROPRIATE UTILITY COMPANY.
- 36. ALL EXISTING DRAINAGE CATCH BASIN AND OUTLET INFORMATION SHALL BE FIELD VERIFIED PRIOR TO ORDERING NEW STRUCTURES.
- 37. ALL GUARDRAIL SHALL BE GALVANIZED OR APPROVED EQUIVALENT.
- 38. ACTUAL GRUBBING LIMITS MAY VARY BASED ON FIELD CONDITIONS AS DIRECTED BY THE RESIDENT. ESTIMATED GRUBBING DEPTHS ARE 6 INCHES IN FIELD AREAS AND 12 INCHES IN WOODED AREAS.

- 39. DRIVEWAY FILL SIDE SLOPES SHALL BE THE SAME AS THE NON-GUARDRAIL FILL SLOPES UNLESS OTHERWISE NOTED ON THE
- 40. GRANULAR BORROW USED TO BACKFILL MUCK EXCAVATION OR IN LOW WET AREAS TO 1' ABOVE WATER LEVEL OR OLD GROUND SHALL MEET REQUIREMENTS FOR GRANULAR BORROW UNDERWATER BACKFILL.
- 41. RESIDENTIAL PAVED ENTRANCES SHALL BE CONSTRUCTED WITH: 2 INCHES HOT MIX ASPHALT 9.5mm, COMMERCIAL PAVED ENTRANCES SHALL BE CONSTRUCTED WITH: 3" HMA AND 11" AGGREGATE SUBBASE COURSE GRAVEL. THE EXTENT OF RECONSTRUCTION SHALL BE COORDINATED WITH THE ENGINEER.
- 42. ANY NECESSARY CLEANING OF EXISTING PAVEMENT PRIOR TO PAVING SHALL BE INCIDENTAL TO THE RELATED PAVING ITEMS.
- 43. THE FOLLOWING SHALL BE INCIDENTAL TO THE 603 ITEM(S):
 - ANY CUTTING OF EXISTING CULVERTS AND OR CONNECTORS NECESSARY TO INSTALL NEW CULVERT REPLACEMENTS OR
 - ALL PIPE EXCAVATION INCLUDING ANY CUTTING AND REMOVAL OF PAVEMENT
- ALL DITCHING AT PIPE ENDS
- FURNISHING, PLACING, GRADING, AND COMPACTING OF ANY NEW GRAVEL AND/OR FILL MATERIAL INCLUDING GRANULAR BORROW USED UNDER PIPES.
- GRANULAR BORROW UNDER THE PIPE SHALL MEET THE REQUIREMENTS FOR UNDERWATER BACKFILL
- ALL WORK NECESSARY TO CONNECT TO EXISTING PIPES AND DRAINAGE STRUCTURES
- FLOW LINES MAY BE CHANGED BY 1.5 FT
- ANY NECESSARY CLEARING OF BRUSH AND NON-PAY TREES AT CULVERT ENDS
- BACKFILL ANY NECESSARY CUTTING OF EXISTING PIPES TO FIT AREAS OF PROPOSED CATCH BASINS
- 44. NO EXISTING DRAINAGE SHALL BE ABANDONED, REMOVED OR PLUGGED WITHOUT PRIOR APPROVAL OF THE RESIDENT. 45. INLETS AND OUTLETS OF ALL CULVERTS SHALL BE RIPRAPPED UNLESS OTHERWISE NOTIED ON THE PLANS OR DIRECTED BY THE
- 46. ALL 6" UNDERDRAIN SHOWN ON THE CROSS SECTIONS WILL HAVE THE FLOW LINE SCALED FIROM THE CROSS SECTIONS. ALL FLOW LINE ELEVATIONS ARE SUBJECT TO APPROVAL BY THE RESIDENT.
- 47. A 3 FT. X 3 FT. SQUARE RIPRAP PAD SHALL BE CONSTRUCTED AT U.D. OUTLETS.
- 48. GUARDRAIL END TREATMENTS SHALL BE INSTALLED CONCURRENTLY WITH THE PLACEMENT OF EACH SECTION OF BEAM GUARDRAIL
- 49. HOLES CREATED BY GUARDRAIL INSTALLATION WILL BE FILLED AND COMPACTED WITH APPROVED MATERIALS AS DIRECTED BY THE RESIDENT. PAYMENT TO BE CONSIDERED INCIDENTAL TO THE GUARDRAIL ITEMS.
- 50. TWO REFLECTORIZED FLEXIBLE G.R. MARKERS WILL BE INSTALLED AT EACH GUARDRAIL END, AND SHALL BE INCIDENTAL TO THE 606 ITEMS.
- 51. A DELINEATOR POST (ITEM 606.35) WILL BE INSTALLED AT EACH UNDERDRAIN OUTLET, AND SHALL BE INCIDENTAL TO THE 606
- 52. LOAM HAS BEEN ESTIMATED FOR DISTURBED AREAS. ACTUAL PLACEMENT OF THE LOAM SHALL BE AS NOTED ON THE PLANS OR DESIGNATED BY THE RESIDENT.
- 53. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING MAILBOXES TO ENSURE THAT THE MAIL WILL BE DELIVERABLE. MAILBOXES SHALL BE RELOCATED SO THAT THE POSTS ARE 1 FOOT BEHIND EDGE OF SHOULDER OR AS DIRECTED BY THE ENGINEER. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK; IT SHALL BE CONSIDERED INCIDENTAL TO THE
- 54. THE CONTRACTOR IS RESPONSIBLE FOR THE CAREFUL SIDE STAKING OF EXISTING CENTERLINE AS PER STANDARD SPECIFICATION 105.6.2. SIDE STAKES SHALL BE PLACED SAFELY OUTSIDE OF THE CONSTRUCTION LIMITS AND THE EXISTING CENTERLINE GRADES SHALL BE TRANSFERRED TO THESE STAKES.
- 55. ANY DAMAGE TO THE SLOPES CAUSED BY THE CONTRACTOR'S EQUIPMENT, PERSONNEL, OR OPERATION SHALL BE REPAIRED TO THE SATISFACTION OF THE RESIDENT. ALL WORK, EQUIPMENT, AND MATERIALS REQUIRED TO MAKE REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 56. ESTIMATED QUANTITIES FOR REQUIRED STRUCTURAL EARTH EXCAVATION, DRAINAGE AND MINOR STRUCTURES ARE INFORMATIONAL ONLY AND REPRESENT THE APPROXIMATE MINIMUM QUANTITY REQUIRED TO INSTALL DRAINAGE STRUCTURES. ADDITIONAL EXCAVATION FOR THE CONTRACTOR'S CONVENIENCE OR TO COMPLY WITH BACKSLOPING REQUIREMENTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO THE RELATED DRAINAGE ITEMS.
- 57. NO SEPARATE PAYMENT FOR SUPERINTENDENT OR FOREMAN WILL BE MADE FOR THE SUPERVISION OF EQUIPMENT BEING PAID FOR UNDER THE EQUIPMENT RENTAL ITEMS.
- 58. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION'S BEST MANAGEMENT PRACTICES FOR EROSION CONTROL & SEDIMENT CONTROL, FEBRUARY, 2008.
- 59. PRIOR TO ROADWAY CONSTRUCTION, CONTRACTOR SHALL TRIM ALL TREE BRANCHES WITHIN RIGHT OF WAY, TO 18 FEET ABOVE THE PAVEMENT. AFTER PAVING IS COMPUETED, CONTRACTOR SHALL TRIM ANY BRANCHES DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION, TRIMMING OF BRANCHES SHALL BE INCIDENTAL TO THE CONTRACT.
- 60. TEST PITS OF ALL UTILITY CROSSINGS SHALL BE COMPLETED TWO WEEKS IN ADVANCE OF THE START OF CONSTRUCTION OR ORDERING OF MATERIALS. TEST PIT INFORMATION SHALL BE PROMPTLY PROVIDED TO ENGINEER FOR REVIEW.
- 61. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY. NO SEPARATE PAYMENT SHALL BE MADE TO THE
- 62. LOCATION OF WATER MAINS ARE APPROXIMATE AND BASED ON A COMPOSITE OF AS-BUILT PLANS AND SURVEYED FEATURES SUCH AS VALVES.
- 63. COORDINATE WITH APPROPRIATE UTILITY COMPANY FOR SUPPORT OF UTILITY POLES AS NECESSARY.
- 64. TEST PITS SHALL BE COMPLETED PRIOR TO ORDERING STRUCTURES TO DETECT EXACT ELEVATION/LOCATION OF EXISTING UTILITIES. TEST PIT INFORMATION SHALL BE PROVIDED TO THE ENGINEER TO REVIEW PRIOR TO ORDERING STRUCTURES FOR THEIR REVIEW. TEST PITS SHALL INCLUDE ALL EXCAVATION, BACKFILL AND TEMPORARY PAVEMENT IN ROAD SECTIONS.
- 65. ANY DAMAGE CAUSED TO THE EXISTING UTILITIES BY THE CONTRACTORS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO SEPARATE PAYMENT SHALL BE MADE.
- 66. SEDIMENT OUTLET HOODS SHALL BE INSTALLED ON ALL CATCH BASIN OUTLET PIPES 18 INCHES AND SMALLER. THE COSTS FOR SEDIMENT OUTLET HOODS SHALL BE INCIDENTAL TO THE RESPECTIVE CATCH BASIN.
- 67. ALL CATCH BASINS SHALL HAVE 2 FOOT SUMPS.

CONTRACTOR FOR DEWATERING.

- 68. ANY BASE PAVEMENT NOT SURFACED BEFORE WINTER WILL REQUIRE TEMPORARY PAVEMENT MARKINGS OF PAINT, BOTH YELLOW CENTERLINE AND WHITE EDGE LINES AND WILL BE CONSIDERED PART OF ITEM 627.733.
- 69. ALL DRIVEWAY CULVERTS TO BE REMOVED. SEE PLAN AND PROFILE SHEETS FOR DETAILS ON REPLACEMENT. IF NON LISTED, DRIVEWAY CULVERTS SHALL BE DISPOSED OF.

SURVEYOR'S NOTES

- 1. THIS SURVEY PLAN IS COPYRIGHT PROTECTED. THIS PLAN IS THE PROPERTY OF BOUNDARY POINTS, AND SHALL NOT BE USED FOR ANY PURPOSE WITHOUT THE WRITTEN CONSENT OF AN AUTHORIZED AGENT OF BOUNDARY POINTS. ALL RIGHTS RESERVED.
- 2. THIS SURVEY PLAN IS ONLY VALID IF AUTHENTIC EMBOSSED SEAL AND SIGNATURE OF CERTIFYING PROFESSIONAL APPEAR ON THE FACE OF THIS SURVEY PLAN.
- 3. REFERENCE IS MADE TO THE CONTRACTUAL AGREEMENT BETWEEN THE PROFESSIONAL LAND SURVEYOR AND THE CLIENT.
- 4. THIS SURVEY PLAN IS SUBJECT TO POSSIBLE REVISION UPON RECEIPT OF A CERTIFIED TITLE OPINION.
- 5. ON THE BASIS OF MY KNOWLEDGE, INFORMATION AND BELIEF I CERTIFY EXCLUSIVELY TO THE CLIENT THAT THIS SURVEY PLAN, MADE TO THE NORMAL STANDARD OF CARE, SUBSTANTIALLY CONFORMS TO THE MAINE BOARD OF LICENSURE FOR LAND SURVEYOR STANDARDS.
- 6. NO CERTIFICATION IS MADE TO THE EXISTENCE OR NONEXISTENCE OF HAZARDOUS SUBSTANCES, ENVIRONMENTALLY SENSITIVE AREAS, UNDERGROUND UTILITIES, UNDERGROUND STRUCTURES, ZONING REGULATIONS OR REAL ESTATE TITLE.
- 7. DIG SAFE MUST BE CONTACTED AND CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND DIMENSIONS OF ALL UTILITIES PRIOR TO EXCAVATION.
- 8. THE SOURCE OF BEARINGS FOR THIS LAND SURVEY WAS MAINE STATE PLANE GRID NORTH AMERICAN DATUM OF 1983 LOCATED IN THE WEST ZONE.
- 9. ELEVATIONS AND CONTOURS DEPICTED HEREON BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929 BEING MEAN SEA LEVEL.
- 10. MIDDLE ROAD WAS REDEFINED BY CUMBERLAND COUNTY COMMISSIONERS IN JULY 1908. RECORDED IN PLAN BOOK 49, PAGE 3, BEING 60-FEET WIDE.

GRADING NOTES:

- 1. ADD 4-INCHES OF LOAM, SEED AND MULCH TO DISTURBED AREAS UNLESS OTHERWISE NOTED. PROVIDE EROSION CONTROL MESH ON ALL SLOPES 6:1 OR STEEPER AND ALONG DITCH CHANNELS.
- 2. GRADE SURFACES TO DRAIN AWAY FROM BUILDING, PUDDLING OF WATER IN PAVED OR UNPAVED AREAS WILL NOT BE ACCEPTABLE, EXCEPT FOR AREAS DESIGNATED AS PONDS.
- 3. MAINTAIN TEMPORARY EROSION CONTROL MEASURES FOR THE FULL DURATION OF CONSTRUCTION. INSPECT WEEKLY AND AFTER EACH STORM AND REPAIR AS NEEDED. REMOVE SEDIMENTS FROM THE SITE, PLACE IN AREA OF LOW EROSION POTENTIAL AND STABILIZE WITH SEED AND MULCH.

DIG SAFE NOTES:

PRIOR TO EXCAVATION. VERIFY THE UNDERGROUND UTILITIES. PIPES. STRUCTURES AND FACILITIES. PROVIDE THE FOLLOWING MINIMUM MEASURES:

- 1. PRE-MARK THE BOUNDARIES OF YOUR PLANNED EXCAVATION WITH WHITE PAINT, FLAGS OR STAKES, SO UTILITY CREWS KNOW WHERE TO MARK THEIR LINES.
- 2. CALL DIG SAFE AT 811 AT LEAST THREE BUSINESS DAYS BUT NO MORE THAN 30 CALENDAR DAYS - BEFORE STARTING WORK. DO NOT ASSUME SOMEONE ELSE WILL MAKE THE CALL.
- 3. IF BLASTING. NOTIFY DIG SAFE AT LEAST ONE BUSINESS DAY IN ADVANCE.
- 4. WAIT THREE BUSINESS DAYS FOR LINES TO BE LOCATED AND MARKED WITH COLOR-CODED PAINT, FLAGS OR STAKES. NOTE THE COLOR OF THE MARKS AND THE TYPE OF UTILITIES THEY INDICATE. TRANSFER THESE MARKS TO THE AS-BUILT DRAWINGS.
- 5. CONTACT THE LANDOWNER AND OTHER "NON-MEMBER" UTILITIES (WATER, SEWER, GAS, ETC.) FOR THEM TO MARK THE LOCATIONS OF THEIR UNDERGROUND FACILITIES. TRANSFER THESE MARKS TO THE AS-BUILT DRAWINGS.
- 6. RE-NOTIFY DIG SAFE AND THE NON-MEMBER UTILITIES IF THE DIGGING, DRILLING OR BLASTING DOES NOT OCCUR WITHIN 30 CALENDAR DAYS OF INITIAL NOTIFICATION, OR IF THE MARKS ARE LOST DUE TO WEATHER CONDITIONS, SITE WORK ACTIVITY OR ANY OTHER REASON.
- 7. HAND DIG WITHIN 18 INCHES IN ANY DIRECTION OF ANY UNDERGROUND LINE UNTIL THE LINE IS EXPOSED. MECHANICAL METHODS MAY BE USED FOR INITIAL SITE PENETRATION, SUCH AS REMOVAL OF PAVEMENT OR ROCK.
- 8. DIG SAFE REQUIREMENTS ARE IN ADDITION TO TOWN, CITY AND/OR STATE DOT STREET OPENING PERMIT REQUIREMENTS.
- 9. FOR COMPLETE DIG SAFE REQUIREMENTS, CALL THE PUBLIC UTILITIES COMMISSION (PUC) OR VISIT THEIR WEBSITE.
- 10. IF YOU DAMAGE. DISLOCATE OR DISTURB ANY UNDERGROUND UTILITY LINE. IMMEDIATELY NOTIFY THE AFFECTED UTILITY. IF DAMAGE CREATES SAFETY CONCERNS, CALL THE FIRE DEPARTMENT AND TAKE IMMEDIATE STEPS TO SAFEGUARD HEALTH AND PROPERTY.
- 11. ANY TIME AN UNDERGROUND LINE IS DAMAGED OR DISTURBED OR IF LINES ARE IMPROPERLY MARKED, YOU MUST FILE AN INCIDENT REPORT WITH THE PUC FOR AN INCIDENT REPORT FORM VISIT WWW.STATE.ME.US/MPUC OR CALL THE PUC AT 1-800-452-4699.

LEGEND PROPOSED EXISTING PROPERTY LINE BUILDING /////////// EDGE OF PAVEMENT CURB CONTOUR -----100 --SPOT GRADE FENCE TIMBER GUARD RAIL STORM DRAIN **CULVERT UNDERDRAIN** CATCH BASIN DRAINAGE MANHOLE SANITARY SEWER LINE SANITARY SEWER MANHOLE NATURAL GAS MAIN UTILITY POLE · UGU -UNDERGROUND UTILITY TRANSFORMER LIGHT POLE WALL MOUNTED LIGHT WATER LINE WATER GATE VALVE **HYDRANT** GAS LINE SIGN RIPRAP **HEADWALL** RÉTAINING WALL WOODEN FENCE _____ TREELINE TEST PIT TP12-11

BORING

AUGER PROBE

CONCRETE

CRUSHED STONE

GRAVEL AREA/DRIVEWAY

PAVED AREA/DRIVEWAY

والمراجعة والمراجعة والمراجعة

⊗ SB13-102

Ø A13−108

TYPICAL APPDEVIATIONS

TYPICAL ABBREVIATIONS:							
ACCMP ACP AC	ASPHALT COATED CMP ASBESTOS CEMENT PIPE ACRE	EA EG ELEC	EACH EXISTING GROUND OR GRADE ELECTRIC	OC OD	ON CENTER OUTSIDE DIAMETER		
AGG	AGGREGATE	EL	ELEVATION	PC	POINT OF CURVE		
ALUM	ALUMINUM	ELB	ELBOW	PD	PERIMETER DRAIN		
APPD	APPROVED	EOP	EDGE OF PAVEMENT	Pl	POINT OF INTERSECTION		
APPROX	APPROXIMATE	EQUIP	EQUIPMENT	PIV	POST INDICATOR VALVE		
ARMH	AIR RELEASE MANHOLE	EST	ESTIMATED	PT	POINT OF TANGENT		
ASB	ASBESTOS	EXC	EXCAVATE	PERF	PERFORATED		
ASP	ASPHALT	EXIST	EXISTING	PP	POWER POLE		
AUTO AUX	AUTOMATIC AUXILIARY	FI	FIELD INLET	PSI	POUNDS PER SQUARE INCH		
AVE	AVENUE	FG FG	FINISH GRADE	PVC	POLYVINYL CHLORIDE		
AZ	AZIMUTH	FBRGL	FIBERGLASS	PVMT	PAVEMENT		
72	AZIMOTT	FDN	FOUNDATION				
ВССМР	BITUMINOUS COATED CMP	FLEX	FLEXIBLE	QTY	QUANTITY		
BM	BENCH MARK	FLG	FLANGE	505			
BIT	BITUMINOUS	FLR	FLOOR	RCP	REINFORCED CONCRETE PIPE		
BLDG	BUILDING	FPS	FEET PER SECOND	ROW	RIGHT OF WAY		
BOT	BOTTOM	FT OR '	FEET	RAD REQD	RADIUS		
BRG	BEARING	FTG	FOOTING	RT	REQUIRED RIGHT		
BV	BALL VALVE			RTE	ROUTE		
		GA	GAUGE		KOOTE		
CB	CATCH BASIN	GAL	GALLON	S	SLOPE		
CEN	CENTER	GALV	GALVANIZED	SCH	SCHEDULE		
CEM LIN CMP	CEMENT LINED CORRUGATED METAL PIPE	GPD GPM	GALLONS PER DAY	SF	SQUARE FEET		
CO	CLEAN OUT	GPM	GALLONS PER MINUTE	SHT	SHEET		
CF	CUBIC FEET	HDPE	HIGH DENSITY POLYETHYLENE	SMH	SANITARY MANHOLE		
CFS	CUBIC FEET PER SECOND	HORIZ	HORIZONTAL	ST	STREET		
CI	CAST IRON	HP	HORSEPOWER	STA SY	STATION		
CL	CLASS	HYD	HYDRANT		SQUARE YARD		
CONC	CONCRETE			TAN	TANGENT		
CONST	CONSTRUCTION	ID	INSIDE DIAMETER	TDH	TOTAL DYNAMIC HEAD		
CONTR	CONTRACTOR	IN OR "	INCHES	TEMP	TEMPORARY		
CS	CURB STOP	INV	INVERT	TYP	TYPICAL		
CTR	CENTER	INV EL	INVERT ELEVATION	UD	UNDERDRAIN		
CU	COPPER	LB	POUND	V	VOLTS		
CY	CUBIC YARD	LC	LEACHATE COLLECTION	VA TEE	VALVE ANCHORING TEE		
D	DEGREE OF CURVE	ĹĎ	LEAK DETECTION	VERT	VERTICAL		
DBL	DOUBLE	LF	LINEAR FEET		That the time		
DEG OR '	DEGREE	LOC	LOCATION	WG	WATER GATE		
DEPT	DEPARTMENT	LT	LEACHATE TRANSPORT				
DI	DUCTILE IRON			W/ W/O	WITH WITHOUT		
DIA OR Ø	DIAMETER	МН	MANHOLE	W/O	WITHOUT		
DIM	DIMENSION	MJ	MECHANICAL JOINT	YD	YARD		
DIST	DISTANCE	MATL	MATERIAL	10	IAND		
DN	DOWN	MAX	MAXIMUM				
DR	DRAIN	MFR	MANUFACTURE MINIMUM				

MINIMUM

NO OR # NUMBER

MONUMENT

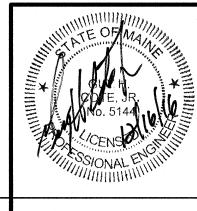
MISC

MISCELLANEOUS

NOT TO SCALE

NOW OR FORMERLY

NOT IN THIS CONTRACT



TOWN OF CUMBERLAND MIDDLE ROAD IMPROVEMENTS CUMBERLAND, MAINE

GENERAL NOTES, LEGEND AND ABBREVIATIONS

Sevee & Maher Engineers, Inc.

ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE 4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021 Phone 207.829.5016 • Fax 207.829.5692 • www.smemaine.com

JOB NO. 16047.00 DWG FILE GEN-NOTES

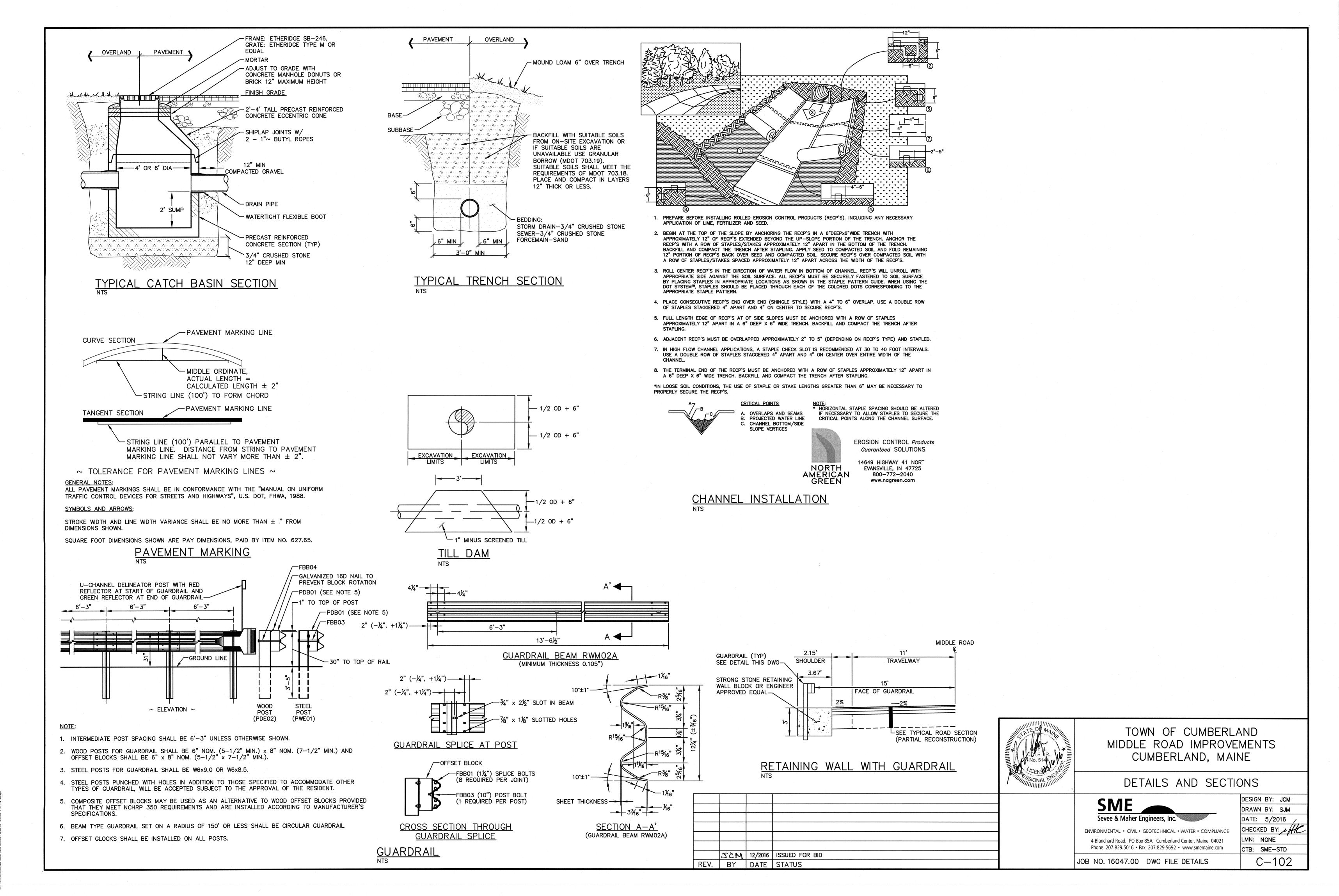
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DESIGN BY: JCM

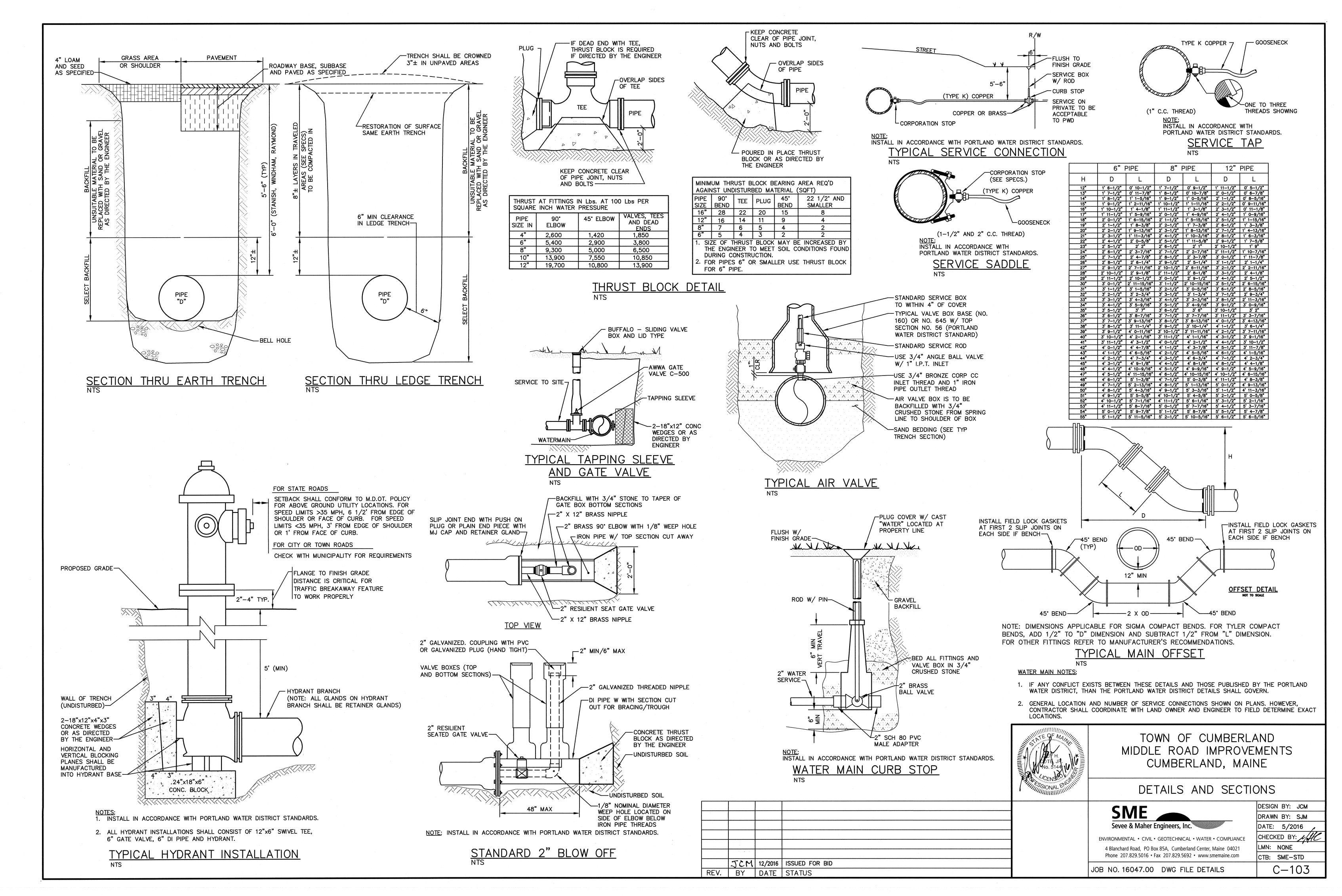
DRAWN BY: SJM

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DRAWING



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A. GENERAL

- 1. All soil erosion and sediment control will be done in accordance with: (1) the Maine Erosion and Sediment Control Handbook: Best Management Practices, Maine Department of Environmental Protection (MEDEP), March 2003
- 2. The site contractor (to be determined) will be responsible for the repair/replacement/maintenance of all erosion control measures until all disturbed areas are stabilized.
- 3. Disturbed areas will be permanently stabilized within 7 days of final grading. Disturbed areas not to be worked upon within 14 days of disturbance will be temporarily stabilized within 7 days of the
- 4. In all areas, removal of trees, bushes and other vegetation, as well as disturbance of topsoil will be kept to a minimum while allowing proper site operations.
- 5. Any suitable topsoil will be stripped and stockpiled for reuse as directed by the owner. Topsoil will be stockpiled in a manner such that natural drainage is not obstructed and no off-site sediment damage will result. In any event, stockpiles will not be located within 100 feet of wetlands and will be at least 50 feet upgradient of the stockpile's perimeter silt fence. The sideslopes of the topsoil stockpile will not exceed 2:1. Silt fence will be installed around the perimeter of all topsoil stockpiles. Topsoil stockpiles will be surrounded with siltation fencing and will be temporarily seeded with Aroostook rye, annual or perennial ryegrass within 7 days of formation, or temporarily
- B. TEMPORARY MEASURES
- 1. STABILIZED CONSTRUCTION ENTRANCE/EXIT

A crushed stone stabilized construction entrance/exit will be placed at any point of vehicular access to the site, in accordance with the detail shown on this sheet.

- 2. SILT FENCE
- a. Silt fence will be installed prior to all construction activity, where soil disturbance may result in erosion. Silt fence will be erected at locations shown on the plans and/or downgrading of all construction activity.
- b. Silt fences will be removed when they have served their useful purpose, but not before the upgradient areas have been permanently
- c. Silt fences will be inspected immediately after each rainfall and at least daily during prolonged rainfall. They will be inspected if there are any signs of erosion or sedimentation below them. Any required repairs will be made immediately. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind them, they will be replaced with a temporary crushed stone check dam.
- d. Sediment deposits will be removed after each storm event if significant build-up has occurred or if deposits exceed half the height of the barrier.
- 3. STONE CHECK DAMS

Stone check dams will be installed in grass-lined swales and ditches during construction.

- 4. BARK MULCH SEDIMENT BARRIER
- a. Where approved, bark mulch sediment barriers may be used as a substitute for silt fence. See the details in this drawing set for specifications.
- b. Rock Filter Berms: To provide more filtering capacity or to act as a velocity check dam, a berm's center can be composed of clean crushed rock ranging in size from the french drain stone to riprap.
- 5. TEMPORARY SEEDING

Stabilize disturbed areas that will not be brought to final grade for a year or less and reduce problems associated with mud and dust production from exposed soil surface during construction with temporary vegetation.

- 6. TEMPORARY MULCHING
- Use temporary mulch in the following locations and/or circumstances: • In sensitive areas (within 100 feet of streams, wetlands and in lake watersheds) temporary mulch will be applied within 7 days of exposing spill or prior to any storm event.
- Apply temporary mulch within 14 days of disturbance or prior to any storm event in all other areas.
- Areas, which have been temporarily or permanently seeded, will be
- mulched immediately following seeding. Areas which cannot be seeded within the growing season will be mulched for over-winter protection and the area will be seeded at the beginning of the growing season.
- Mulch can be used in conjunction with tree, shrub, vine, and ground cover plantings.
- Mulch anchoring will be used on slopes greater than 5 percent in late fall (past October 15), and over-winter (October 15 - April

The following materials may be used for temporary mulch:

- a. Hay or Straw material shall be air-dried, free of seeds and coarse material. Apply 2 bales/1,000 sf or 1.5 to 2 tons/acre to cover 90% of around surface.
- b. Erosion Control Mix: It can be used as a stand-alone
- reinforcement: • on slopes 2 horizontal to 1 vertical or less;
- on frozen ground or forested greas; and
- at the edge of gravel parking areas and areas under construction.
- c. Erosion control mix alone is not suitable:
- on slopes with groundwater seepage: • at low points with concentrated flows and in aullies:
- at the bottom of steep perimeter slopes exceeding 100 feet in
- below culvert outlet aprons: and
- around catch basins and closed storm systems.
- d. Chemical Mulches and Soil Binders: Wide ranges of synthetic spray—on materials are marketed to protect the soil surface. These are emulsions that are mixed with water and applied to the soil. They may be used alone, but most often are used to hold wood fiber, hydro-mulches or straw to the soil surface.

- e. Erosion Control Blankets and Mats: Mats are manufactured combinations of mulch and netting designed to retain soil moisture and modify soil temperature. During the growing season (April 15 to October 15) use mats indicated on drawings or North American Green (NAG) S75 (or mulch and netting) on:
- the base of grassed waterways; • steep slopes (15 percent or greater); and
- any disturbed soil within 100 feet of lakes, streams, or wetlands

During the late fall and winter (October 15 to April 15) use heavy grade mats indicated on drawings for NAG SC250 on all areas noted above plus use lighter grade mats NAG S75 (or mulch and netting)

- sideslopes of grassed waterways; and • moderate slopes (between 8 and 15 percent).
- 7. TEMPORARY DUST CONTROL

To prevent the blowing and movement of dust from exposed soil surfaces, and reduce the presence of dust, use water or calcium chloride to control dusting by preserving the moisture level in the road surface materials.

- 8. CONSTRUCTION DE-WATERING
- a. Water from construction de-watering operations shall be cleaned of sediment before reaching wetlands, water bodies, streams or site boundaries. Utilize temporary sediment basins, erosion control soil filter berms backed by staked hay bales, A Dirt Bag 55" sediment filter bag by ACF Environmental, or other approved Best Management Practices (BMP's).
- b. In sensitive greas, near streams or ponds, discharge the water from the de-watering operation into a temporary sediment basin created by a surrounding filter berm of uncompacted erosion control mix immediately backed by staked hay bales (see the site details). Locate the temporary sediment basin at lease 100 feet from the nearest water body, such that the filtered water will flow through undisturbed vegetated soil areas prior to reaching the water body or property line.
- C. PERMANENT MEASURES
- 1. Riprapped Aprons: All storm drain pipe outlets and the inlet and outlet of culverts will have riprap aprons to protect against scour and
- 2. Topsoil, Seed, and Mulch: All areas disturbed during construction, but not subject to other restoration (paving riprap, etc.) will be loamed, limed, fertilized, seeded, and mulched.
- a. Seeded Preparation: Use stockpiled materials spread to the depths shown on the plans, if available. Approved topsoil substitutes may be used. Grade the site as needed.
- b. Seeding will be completed by August 15 of each year. Late season seeding may be done between August 15 and October 15. Areas not seeded or which do not obtain satisfactory growth by October 15. will be seeded with Aroostook Rve or mulched. After November 1, or the first killing frost, disturbed areas will be seeded at double the specified application rates, mulched, and anchored.

PERMANENT SEEDING SPECIFICATIONS

Mixture:	Roadside (lbs/acre)	Lawn (lbs/acre)
Kentucky Bluegrass	20	55
White Clover	5	0
Creeping Red Fescue	20	55
Perennial Ryegrass	5	15

- c. Mulch in accordance with specifications for temporary mulching.
- d. If permanent vegetated stabilization cannot be established due to the season of the year, all exposed and disturbed areas not to undergo further disturbance are to have dormant seeding applied and be temporarily mulched to protect the site.
- 3. Ditches and Channels: All ditches on-site will be lined with North American Green S75 erosion control mesh (or an approved equal) upon installation of loam and seed.
- D. WINTER CONSTRUCTION AND STABILIZATION

1. Winter excavation and earthwork will be completed so as to minimize exposed areas while satisfactorily completing the project. Limit exposed areas to those areas in which work is to occur during the following 15 days and that can be mulched in one day prior to any snow event. All areas will be considered denuded until the subbase gravel is installed in roadway areas or the areas of future loam and seed have been loamed, seeded, and mulched.

Install any added measures necessary to control erosion/sedimentation. The particular measure used will be dependent upon site conditions. the size of the area to be protected, and weather conditions.

To minimize areas without erosion control protection, continuation of earthwork operations on additional areas will not begin until the exposed soil surface on the area being worked has been stabilized.

- 2. Natural Resource Protection: During winter construction, a double-row of sediment barriers (i.e., silt fence backed with hay bales or erosion control mix) will be placed between any natural resource and the disturbed area. Projects crossing the natural resource will be protected a minimum distance of 100 feet on either side from the
- Sediment Barriers: During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.
- 4. Mulching: All areas will be considered to be denuded until seeded and mulched. Hay and straw mulch will be applied at a rate of twice the normal accepted rate.

Mulch will not be spread on top of snow.

After each day of final grading, the area will be properly stabilized with anchored hay or straw or erosion control matting.

Between the dates of November 1 and April 15, all mulch will be anchored by either mulch netting, emulsion chemical, tracking or wood cellulose fiber.

5. Soil Stockpiling: Stockpiles of soil or subsoil will be mulched for over-winter protection with hav or straw at twice the normal rate or with a 4-inch layer of erosion control mix. This will be done within 24 hours of stocking and re-established prior to any rainfall or snowfall. Any soil stockpiles shall not be placed (even covered with mulch) within 100 feet from any natural resources.

6. Seeding: Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas will receive 4 inches of loam and seed at an application rate of three times the rate for permanent seeding. All areas seeded during the winter will be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75 percent catch) will be revegetated by replacing loam, seed, and mulch.

If dormant seeding is not used for the site, all disturbed areas will be revegetated in the spring.

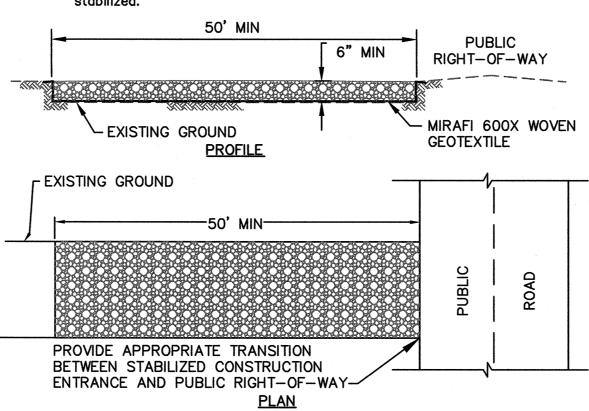
Maintenance: Maintenance measures will be applied as needed during the entire construction season. After each rainfall, snow storm, or period of thawing and runoff, the site contractor will perform a visual inspection of all installed erosion control measures and perform repairs as needed to ensure their continuous function.

Following the temporary and/or final seeding and mulching, the contractor will, in the spring, inspect and repair any damages and/or bare spots. An established vegetative cover means a minimum of 85 to 90 percent of areas vegetated with vigorous growth.

- E. OVER-WINTER CONSTRUCTION EROSION CONTROL MEASURES
- 1. Stabilization of Disturbed Soil: By October 15, all disturbed soils on areas having a slope less than 15 percent will be seeded and mulched. If the contractor fails to stabilize these soils by this date, then the contractor shall stabilize the soil for late fall and winter, by using either temporary seeding or mulching.
- 2. Stabilization of Disturbed Slopes: All slopes to be vegetated will be completed by October 15. The owner will consider any area having a grade greater than 15 percent (6.5H:1V) to be a slope. Slopes not vegetated by October 15 will receive one of the following actions to stabilize the slope for late fall and winter:
- a. Stabilize the soil with temporary vegetation and erosion control
- b. Stabilize the slope with erosion control mix.
- c. Stabilize the slope with stone riprap.
- 3. Stabilization of Ditches and Channels: All stone-lined ditches and channels to be used to convey runoff through the winter will be constructed and stabilized by November 15. Grass-lined ditches and channels will be complete by September 15. Grass-lined ditches not stabilized by September 15 shall be lined with either sod or riprap.
- F. MAINTENANCE PLAN
- 1. Routine Maintenance: Inspection will be performed as outlined in the project's Erosion Control Plan. Inspection will be by a qualified person during wet weather to ensure that the facility performs as intended. Inspection priorities will include checking erosion controls for accumulation of sediments.
- G. CONSTRUCTION SEQUENCE

In general, the expected sequence of construction for each phase is provided below. Construction is proposed to start in Spring 2016 and be complete in Winter 2016.

- Site preparation. • Install temporary erosion control measures.
- Stockpile topsoil onsite. Construct stormwater management facilities to be used as sedimentation.
- Install culverts, ditches, storm drains, culverts, utilities, and construct subgrade of roadways and parking areas.
- Prepare the building and equipment sites and construct foundations. • Perform site stabilization (complete roadway and parking area gravel and bituminous pavement; loam, seed, and mulch) and other miscellaneous
- items (fencing and gates; plantings). Clean sediment from temporary collection structures; complete construction of stormwater management structures
- Remove temporary erosion control measures after all disturbed areas are stabilized.

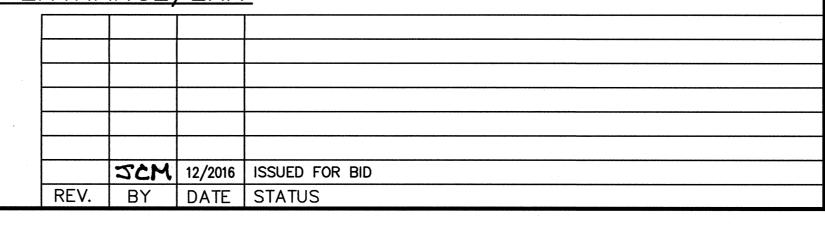


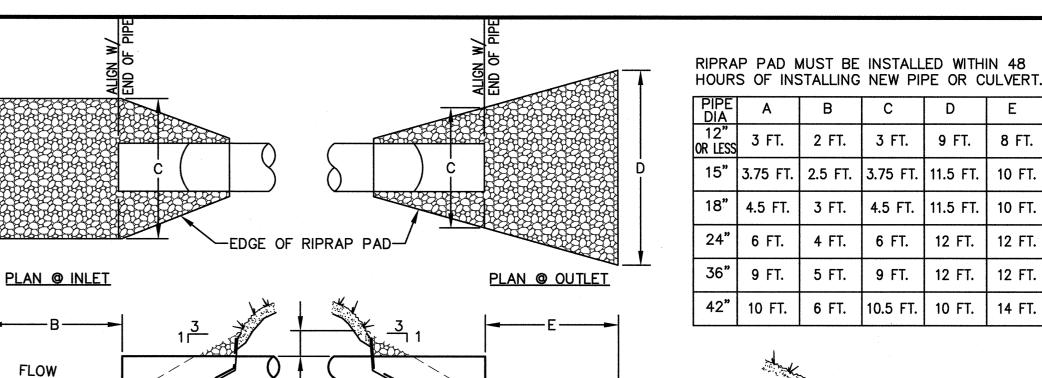
CONSTRUCTION SPECIFICATIONS

STONE SIZE - 2" TO 3" STONE OR RECLAIMED OR RECYCLED CONCRETE, 2. OR EQUIVALENT.

- 3. LENGTH AS EFFECTIVE, BUT NOT LESS THAN 50 FEET.
- 4. THICKNESS NOT LESS THAN SIX (6) INCHES.
- 5. WIDTH 10 FEET MINIMUM, OR NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
- MAINTENANCE THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC REPAIR AND TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE/EXIT





1'-0" MIN-

SECTION @ INLET

-PLACE SILTSACK IN

EXISTING BASIN

SILTSACK BY ACF

2" TO 3" CRUSHED

FLOW-

ENVIRONMENTAL OR

APPROVED EQUAL

1"ø REBAR (TYP)

EXISTING FRAME. EXISTING

GRATE MAY BE REPLACED

CATCH BASIN

SILTSACK CATCH BASIN PROTECTION

SECTION

L = THE DISTANCE SUCH THAT POINTS

A AND B ARE OF EQUAL ELEVATION

USE AT ALL NEWLY CONSTRUCTED GRASS LINED DITCHES AS A TEMPORARY

EROSION CONTROL MEASURE AND WHERE OTHERWISE NOTED ON PLANS.

STONE CHECK DAM

DURING CONSTRUCTION

-GEOTEXTILE FABRIC

APPROVED EQUAL-

MIRAFI 500X OR

-CATCH BASIN

NEW INSTALLATION

-SILTSACK PLACED IN CATCH

GRATE INSTALLATION

-CATCH BASIN

BASIN OPENING

SPACING BETWEEN

CHECK DAMS

(FT/FT) (FT)

50

40

30

20

10

0.020

0.030

0.040

0.050

0.080

0.100

FRAME OR

BASIN PRIOR TO FRAME AND

- TRAPPED

SEDIMENT

FINISH GRADE

24" | 6 FT. | 4 FT. 6 FT. | 12 FT. | 12 FT. 36" | 9 FT. | 5 FT. 9 FT. | 12 FT. | 12 FT. 42" | 10 FT. | 6 FT. 10.5 FT. 10 FT. DIA OF PIPE (MIN)-

2 FT.

3 FT. | 9 FT. |

8 FT.

15"

21"

24"

10"

SECTION @ OUTLET RIPRAP INLET/OUTLET PROTECTION

FLOW

CROSS SECTION

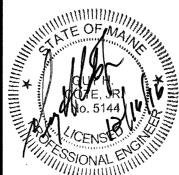
NOTES:

EROSION CONTROL MIX CAN BE MANUFACTURED ON OR OFF THE SITE. IT MUST CONSIST PRIMARILY OF ORGANIC MATERIAL SEPARATED AT THE POINT OF GENERATION, AND MAY INCLUDE: SHREDDED BARK, STUMP GRINDINGS, COMPOSTED BARK, OR FLUME GRIT AND FRAGMENTED WOOD GENERATED FROM WATER-FLUME LOG HANDLING WOOD CHIPS. GROUND CONSTRUCTION DEBRIS, REPROCESSED WOOD PRODUCTS OR BARK CHIPS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX. EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES AND MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER.

EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT

- THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS: A. ORGANIC MATERIAL: BETWEEN 20% - 100% (DRY WEIGHT BASIS)
- B. PARTICLE SIZE: BY WEIGHT, 100% PASSING 6" SCREEN, 70-85% PASSING 0.75" SCREEN C. THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED. D. LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX. E. SOLUBLE SALTS CONTENT SHALL BE LESS THAN 4.0 MMHOS/CM. F. PH: 5.0 - 8.0
- 2. ON SLOPES LESS THAN 5% OR AT THE BOTTOM OF SLOPES 2:1 OR LESS UP TO 20 FEET LONG, THE BARRIER MUST CONFORM TO THE ABOVE DIMENSIONS. ON THE LONGER OR STEEPER SLOPES, THE BARRIER SHOULD BE WIDER TO ACCOMMODATE THE ADDITIONAL FLOW.
- 3. THE BARRIER MUST BE PLACED ALONG A RELATIVELY LEVEL ELEVATION. IT MAY BE NECESSARY TO CUT TALL GRASSES OR WOODY VEGETATION TO AVOID CREATING VOIDS AND BRIDGES THAT WOULD ENABLE FINES TO WASH UNDER THE BARRIER THROUGH THE GRASS BLADES OR PLANT STEMS.
- 4. LOCATIONS WHERE OTHER BMP'S SHOULD BE USED:
 A. AT LOW POINTS OF CONCENTRATED FLOW
 - C. WHERE A PREVIOUS STAND-ALONE EROSION CONTROL MIX APPLICATION HAS FAILED D. AT THE BOTTOM OF STEEP PERIMETER SLOPES THAT ARE MORE THAN 50 FEET FROM TOP TO BOTTOM (LARGE UPGRADIENT WATERSHED) E. AROUND CATCH BASINS AND CLOSED STORM DRAIN SYSTEMS.
- 5. THE EROSION CONTROL MIX BARRIERS SHOULD BE INSPECTED REGULARLY AND AFTER EACH LARGE RAINFALL. REPAIR ALL DAMAGED SECTIONS OF BERM IMMEDIATELY BY REPLACING OR ADDING ADDITIONAL MATERIAL PLACED ON THE BERM TO THE DESIRED HEIGHT AND WIDTH.
- 6. IT MAY BE NECESSARY TO REINFORCE THE BARRIER WITH SILT FENCE OR STONE CHECK DAMS IF THERE ARE SIGNS OF UNDERCUTTING OR THE IMPOUNDMENT OF LARGE VOLUMES OF WATER.
- 7. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN THEY REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE
- 8. REPLACE SECTIONS OF BERM THAT DECOMPOSE, BECOME CLOGGED WITH SEDIMENT OR OTHERWISE BECOME INEFFECTIVE. THE BARRIER SHOULD BE RESHAPED AS NEEDED.
- EROSION CONTROL MIX BARRIERS CAN BE LEFT IN PLACE AFTER CONSTRUCTION. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER BARRIER IS NO LONGER REQUIRED SHOULD BE SPREAD TO CONFORM TO THE EXISTING GRADE AND BE SEEDED AND MULCHED. WOODY VEGETATION CAN BE PLANTED INTO THE BARRIERS, OR THEY CAN BE OVER-SEEDED WITH LEGUMES. IF THE BARRIER NEEDS TO BE REMOVED, IT CAN BE SPREAD OUT INTO THE

EROSION CONTROL MIX SEDIMENT BARRIER



TOWN OF CUMBERLAND MIDDLE ROAD IMPROVEMENTS CUMBERLAND, MAINE

EROSION CONTROL NOTES AND DETAILS

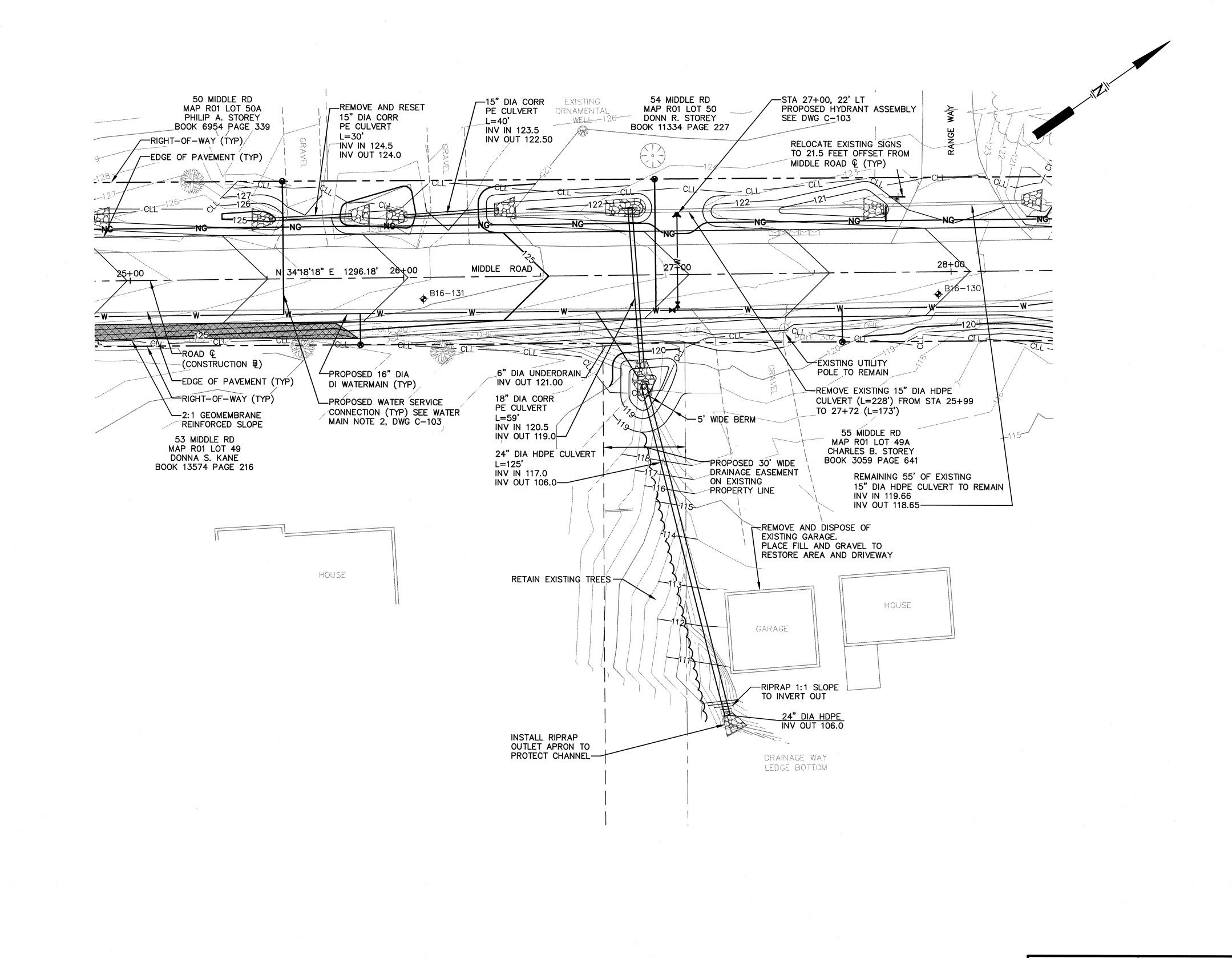
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DESIGN BY: JCM



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TOWN OF CUMBERLAND MIDDLE ROAD IMPROVEMENTS CUMBERLAND, MAINE

CULVERT EXTENSION PLAN

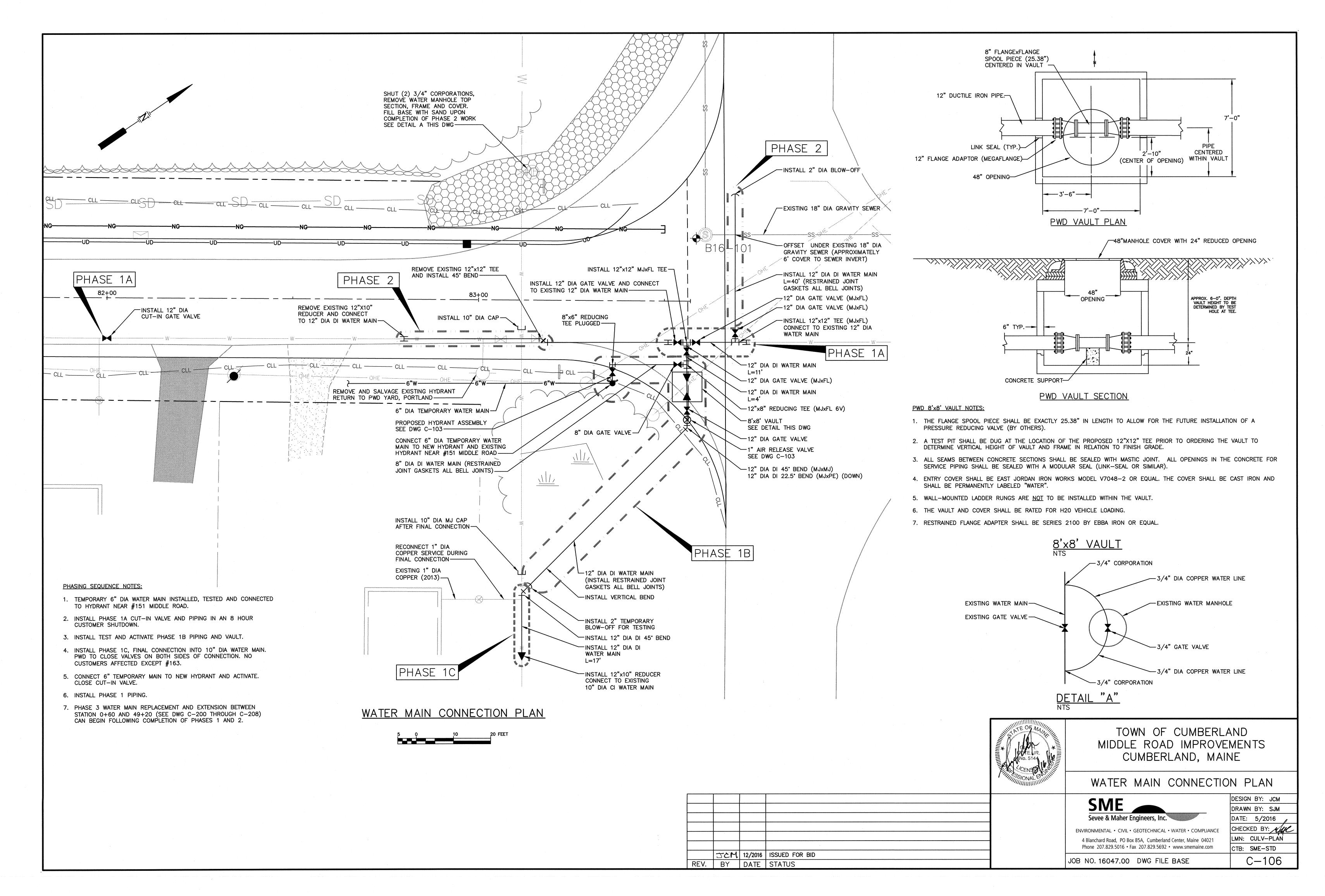
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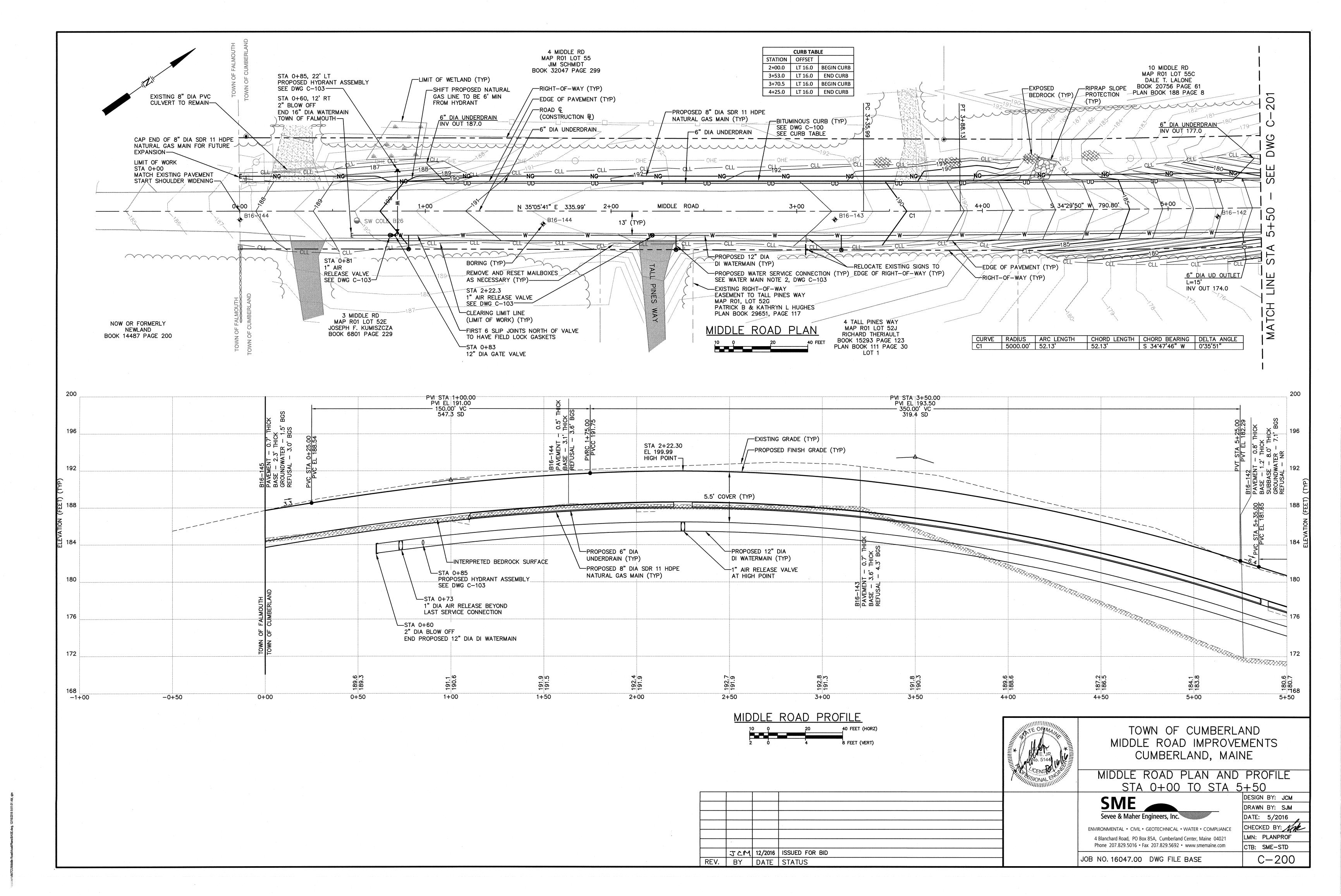
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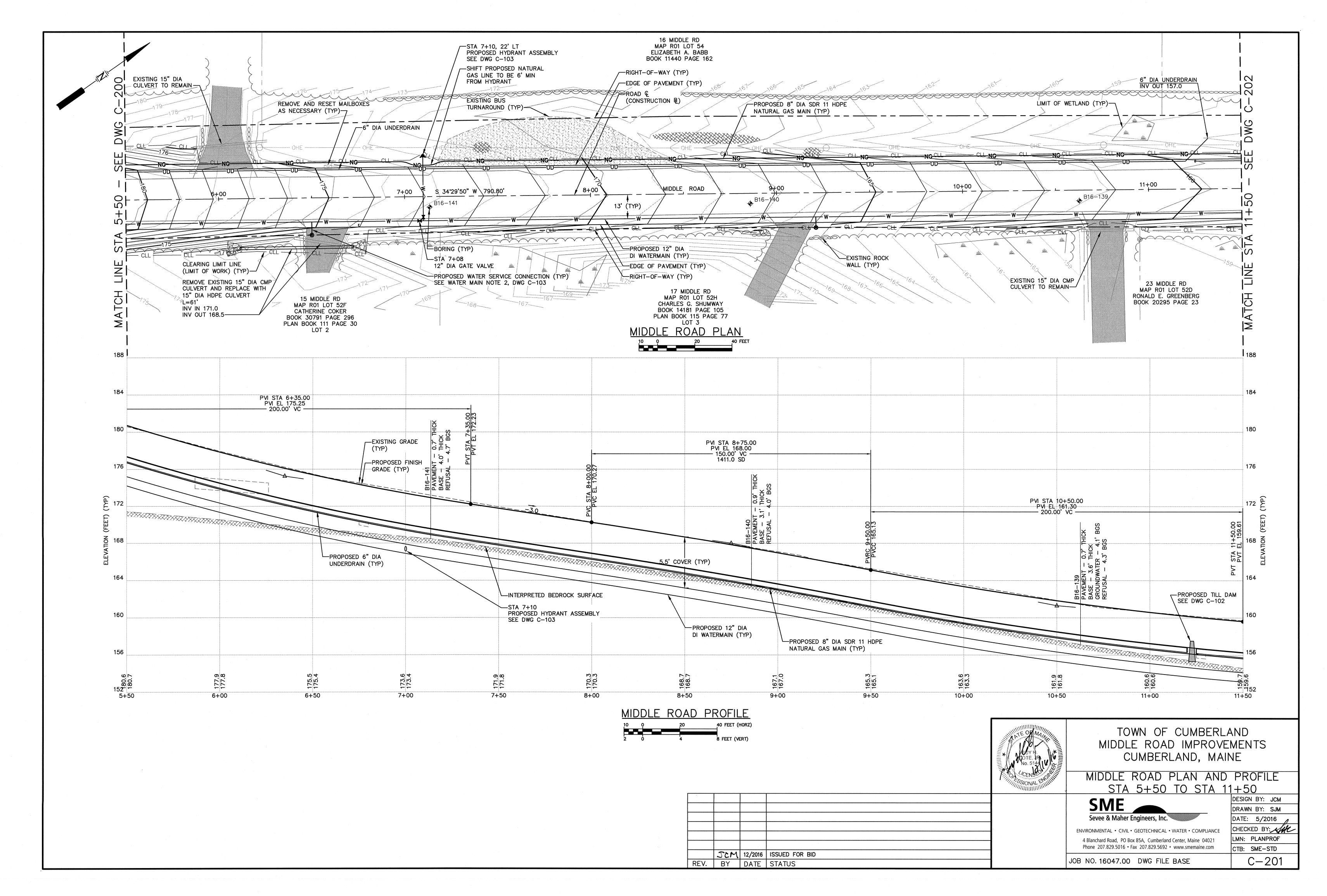
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DESIGN BY: JCM

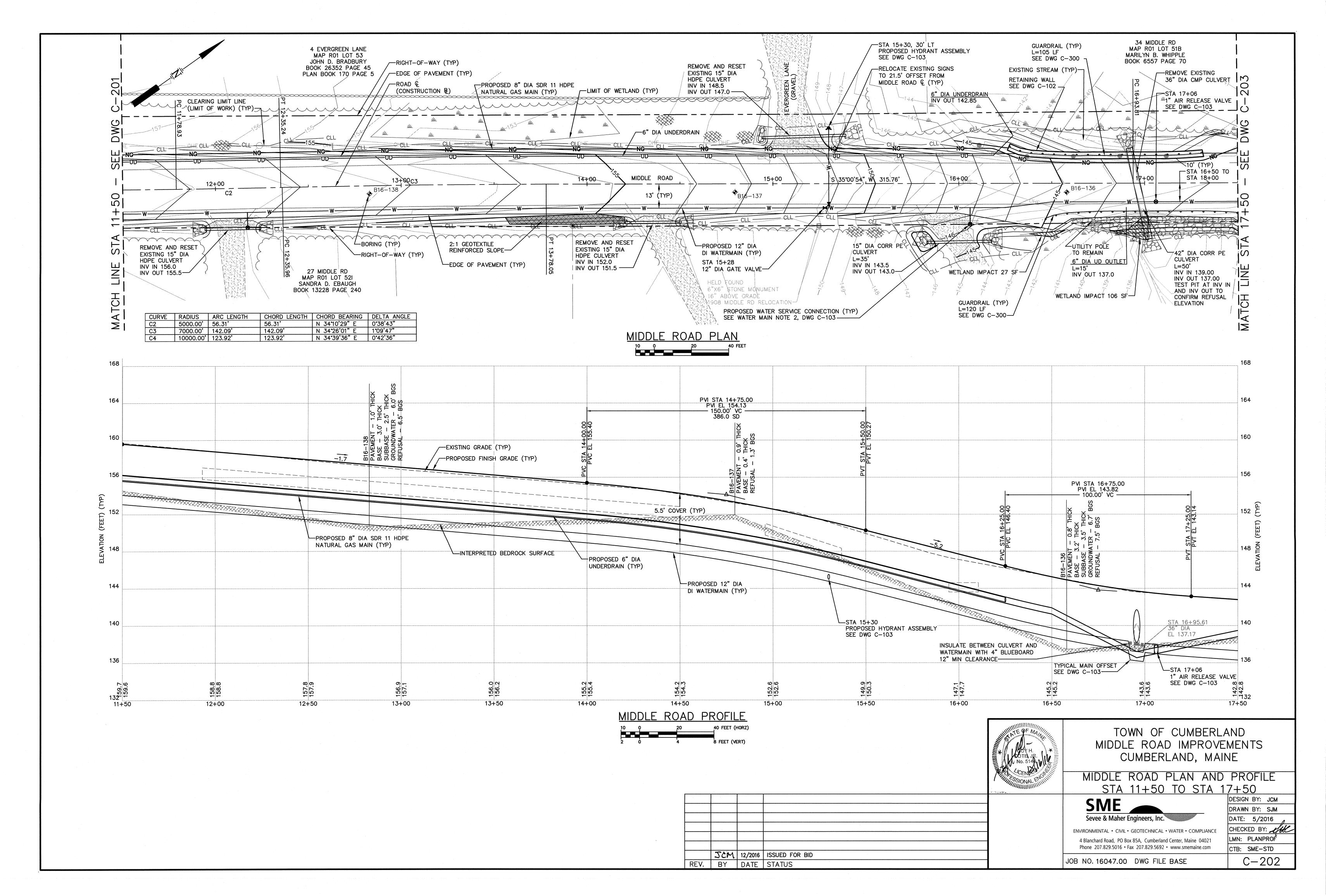


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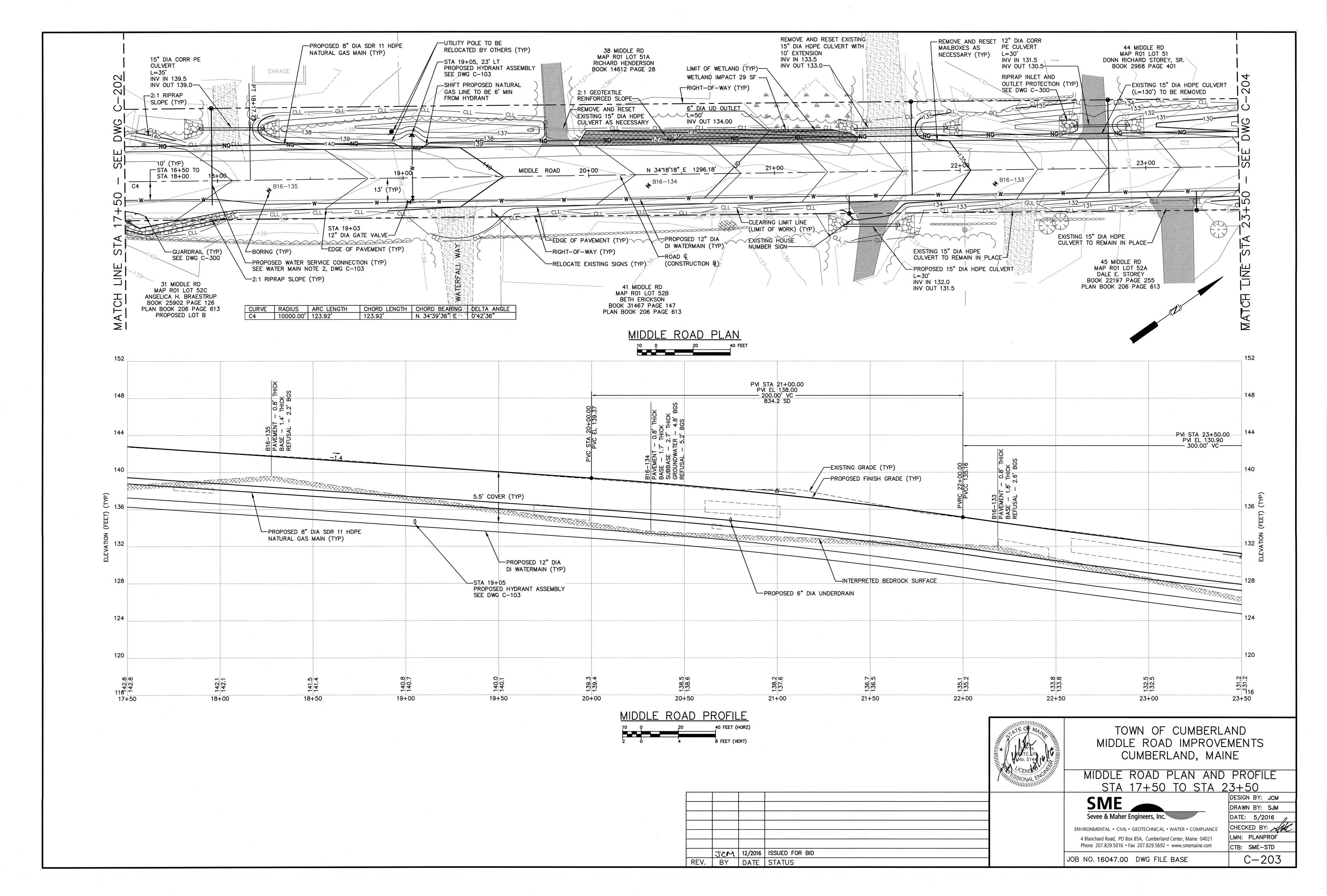




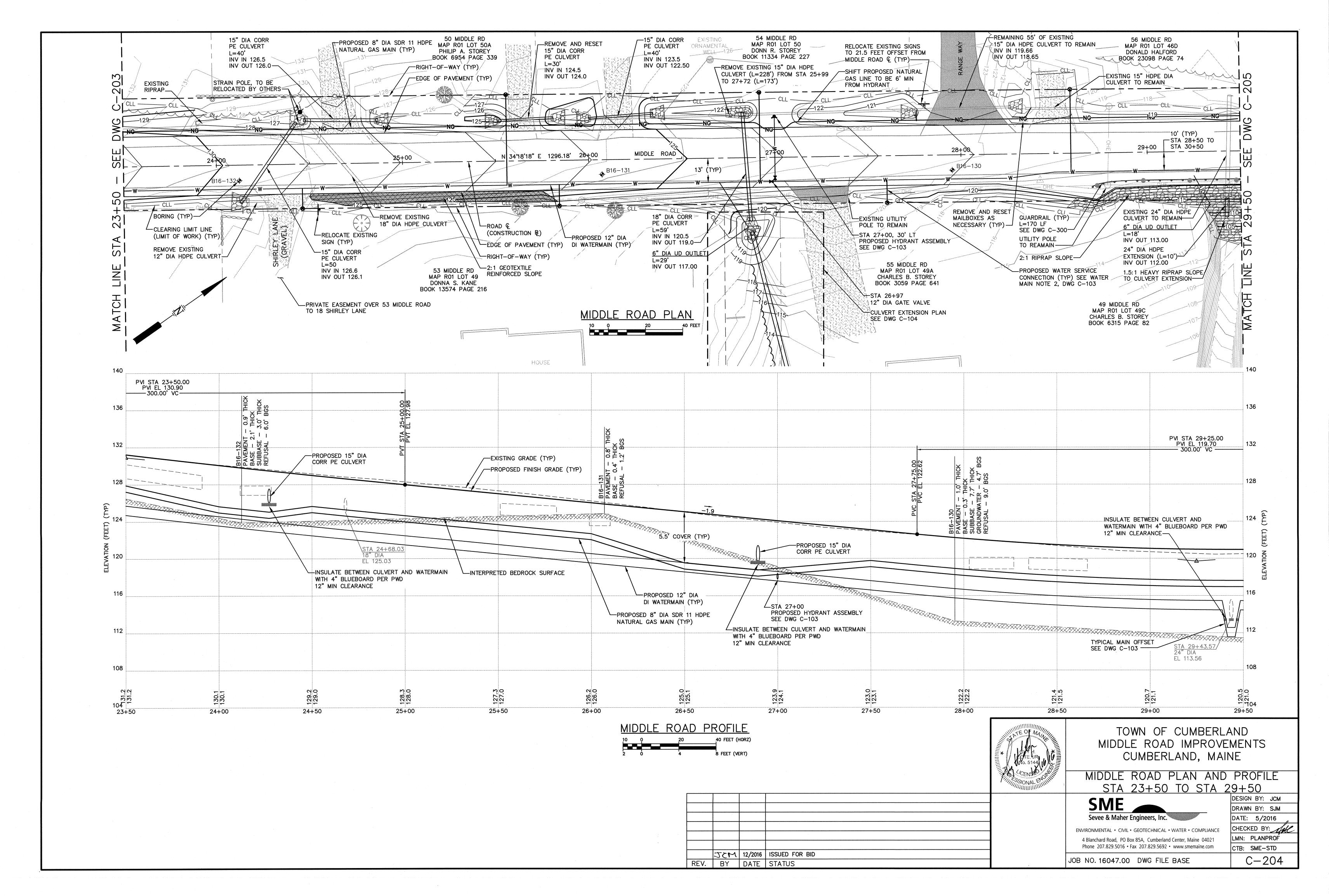
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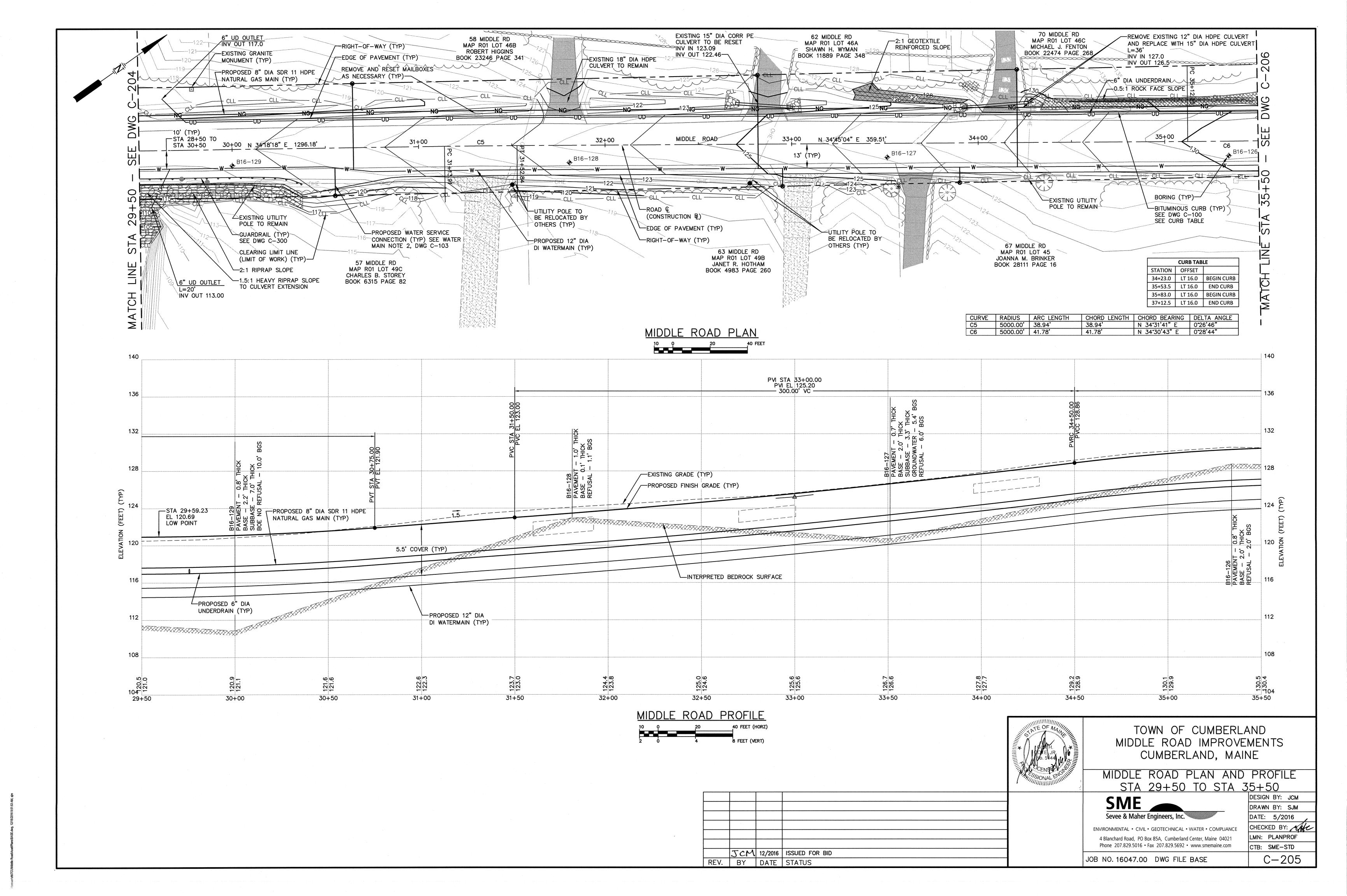
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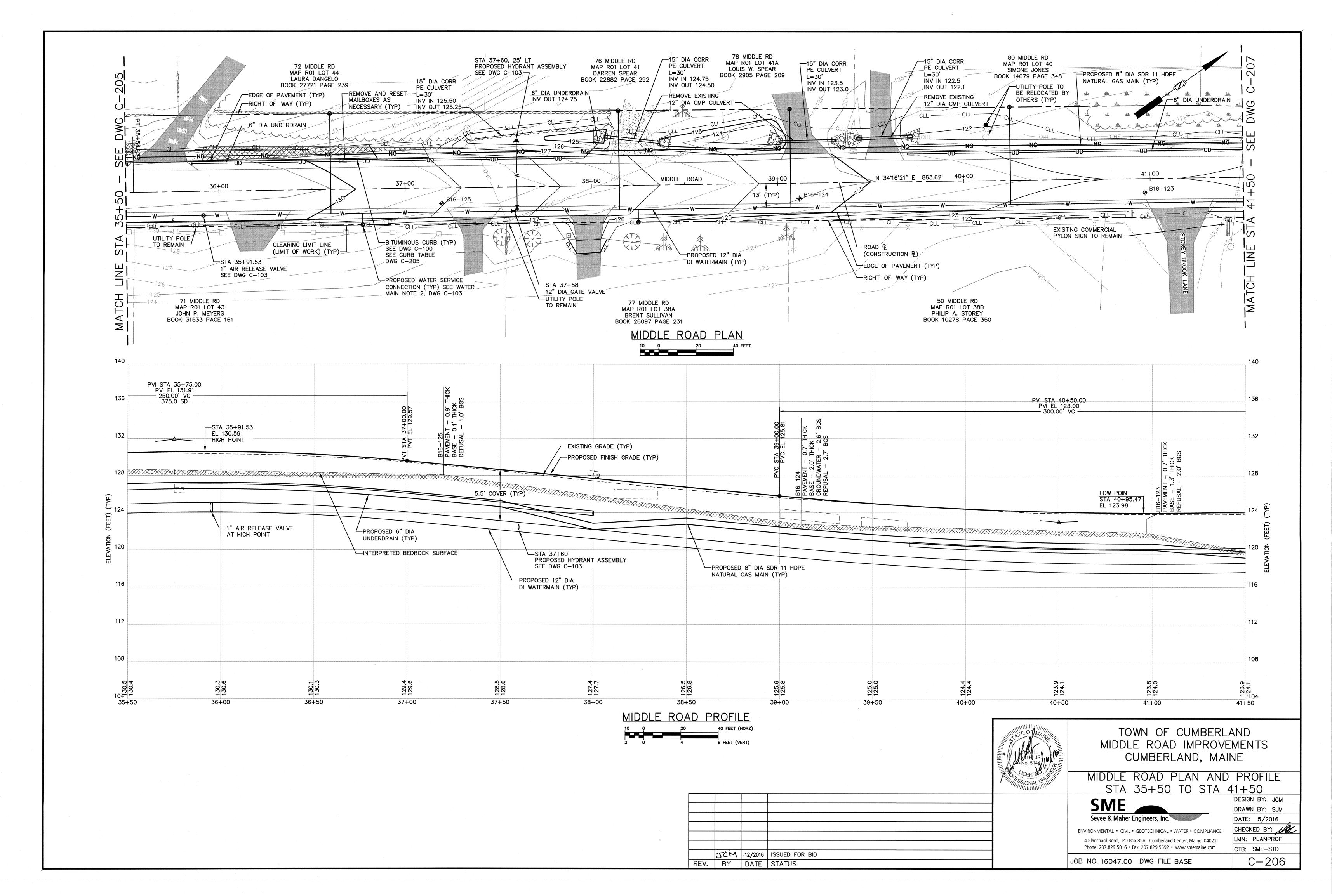


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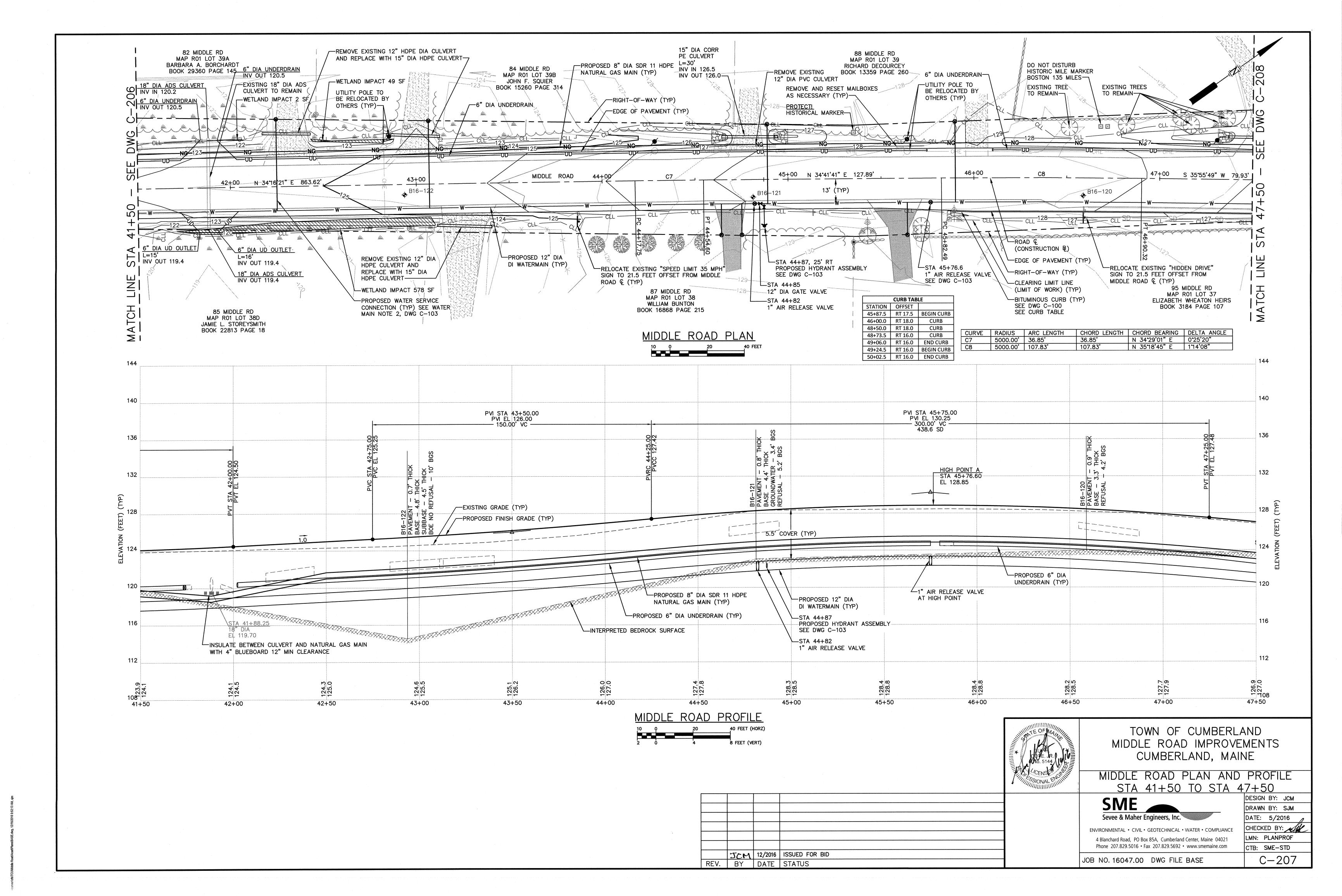


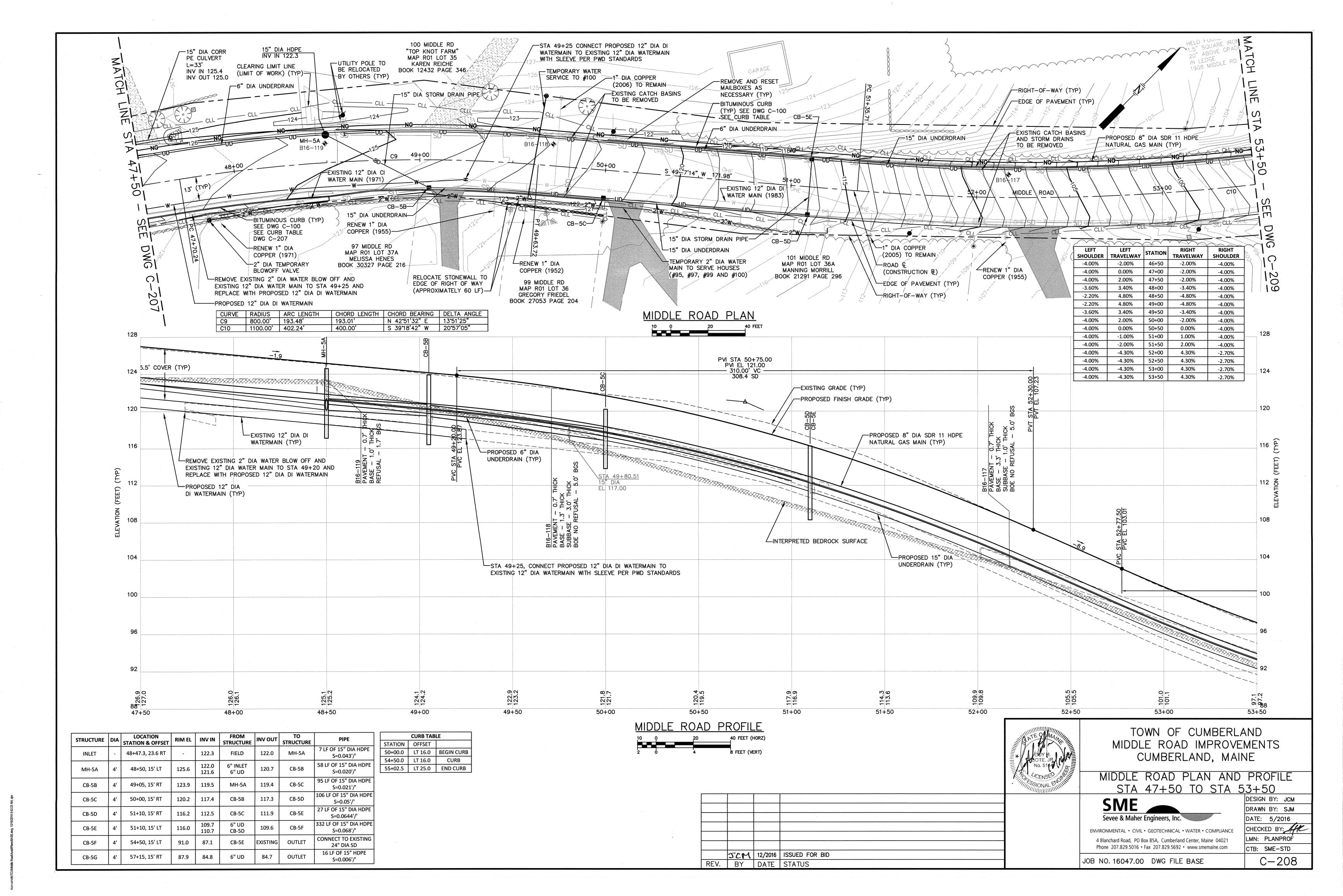
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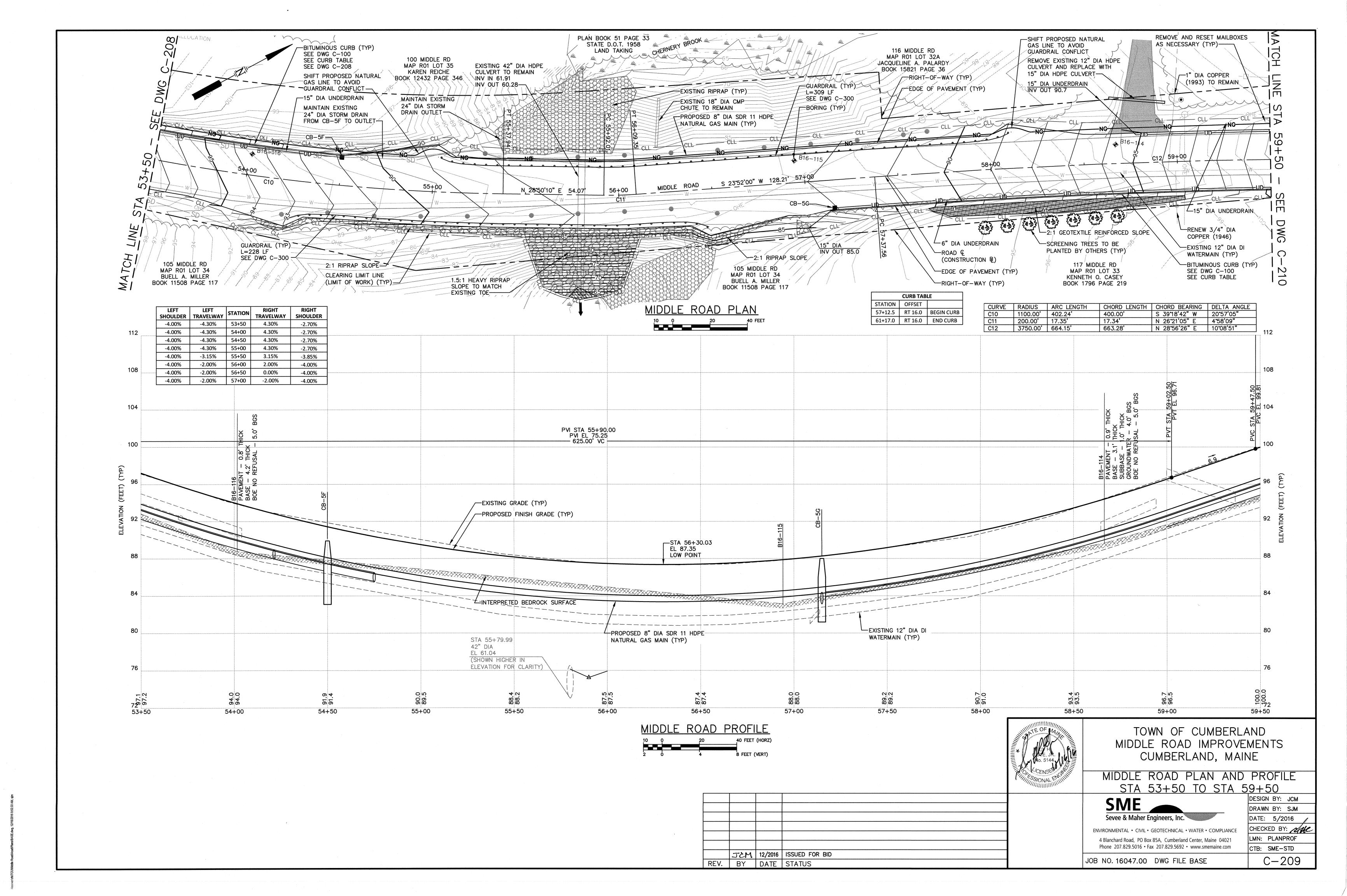


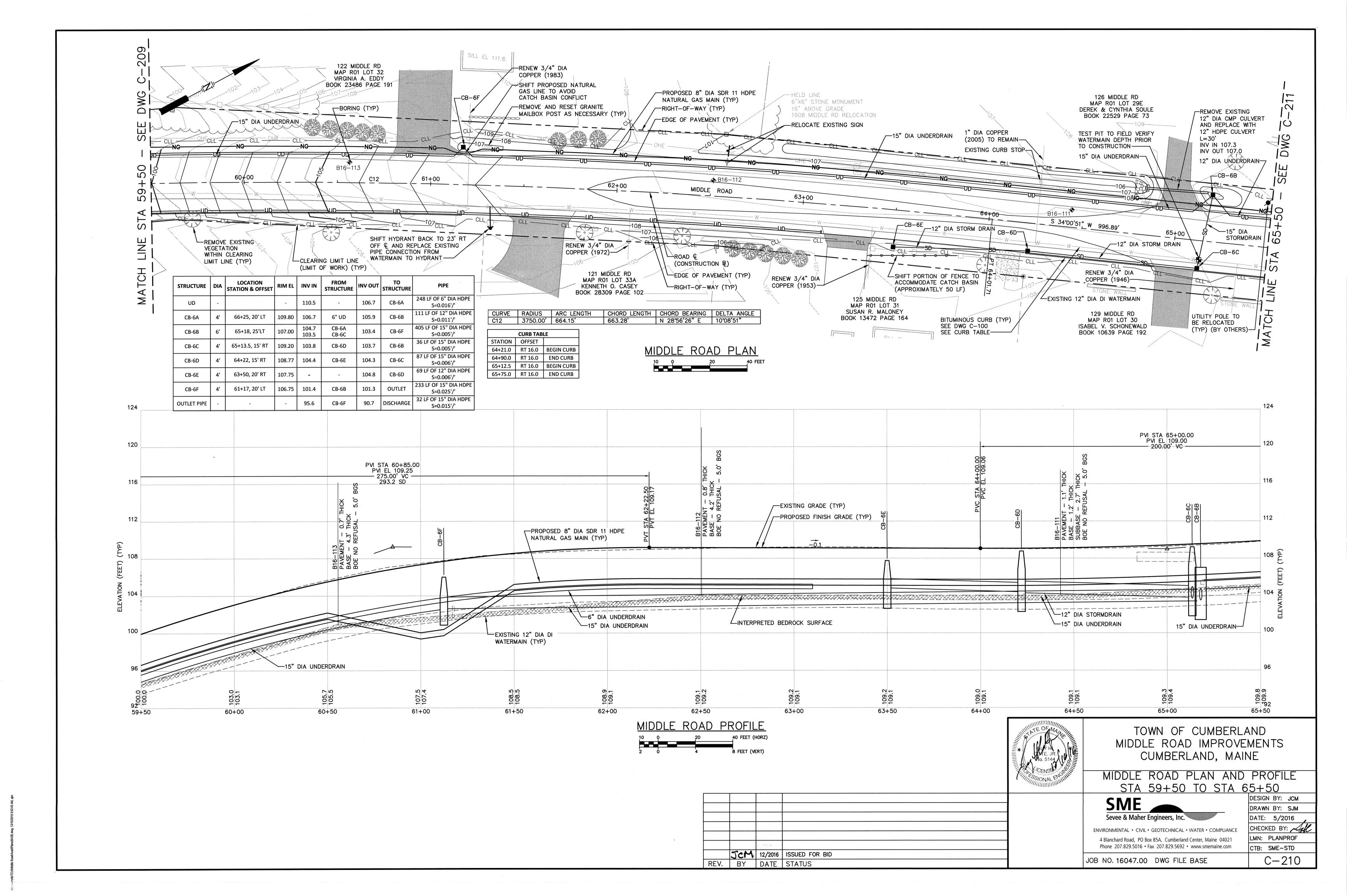


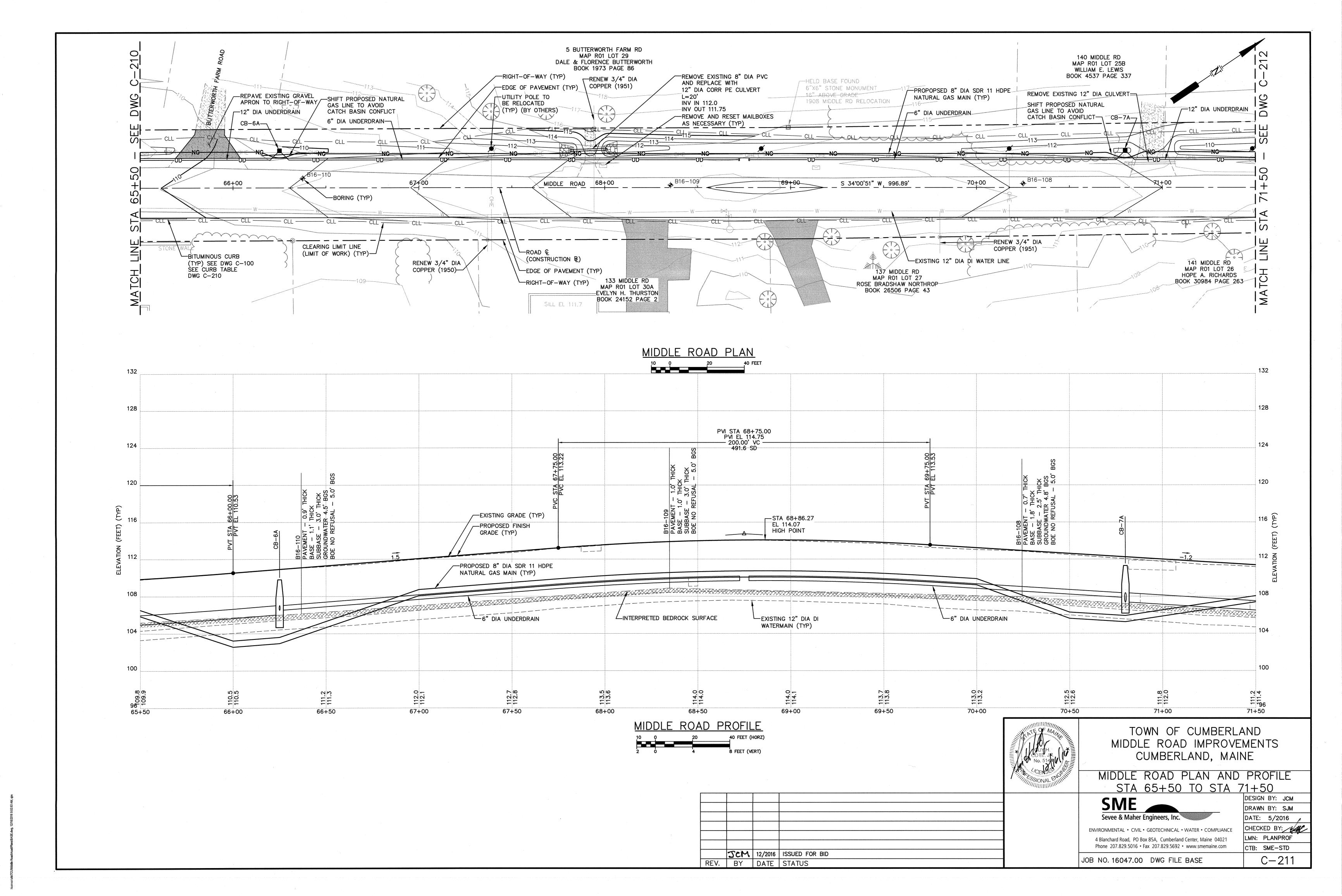
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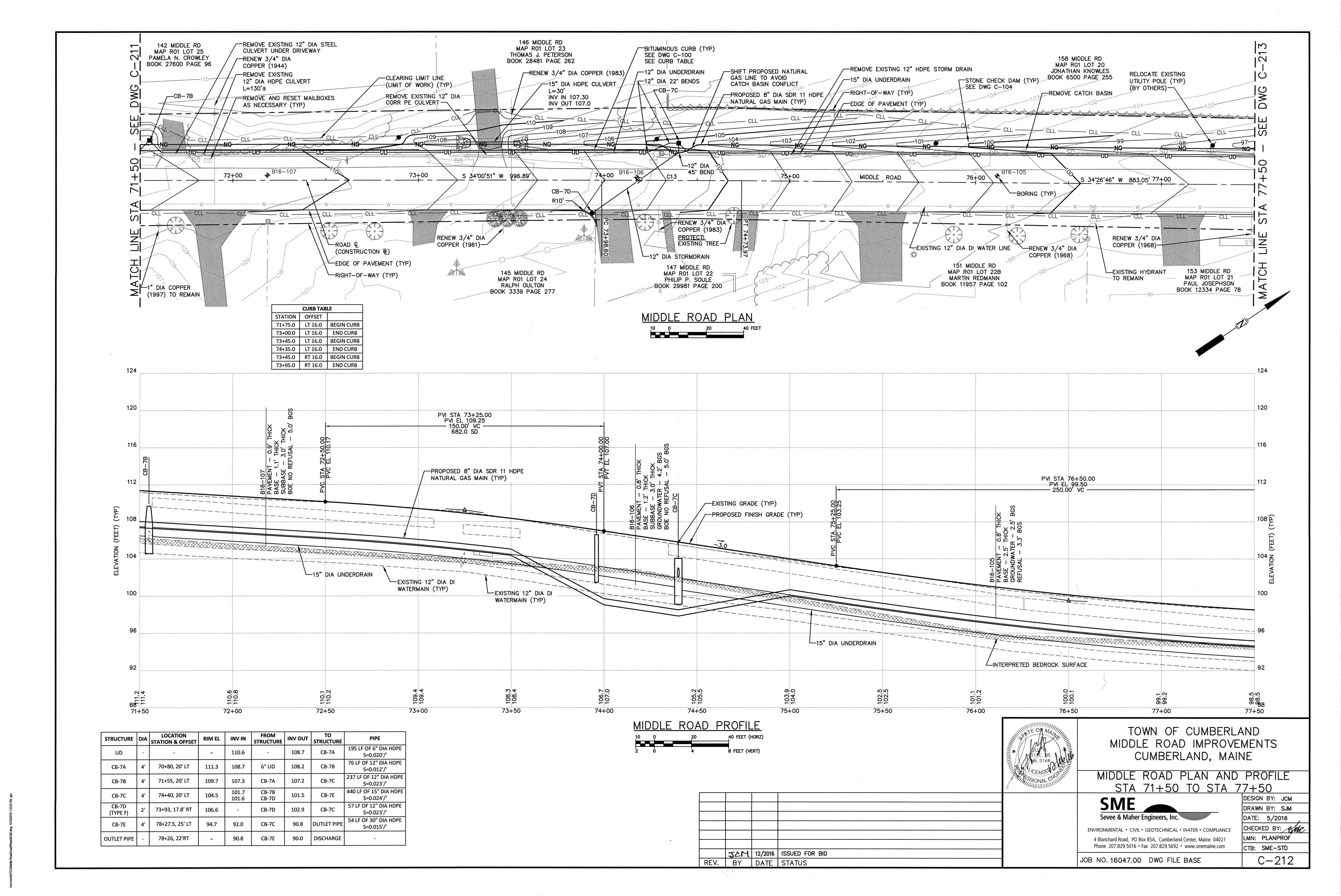


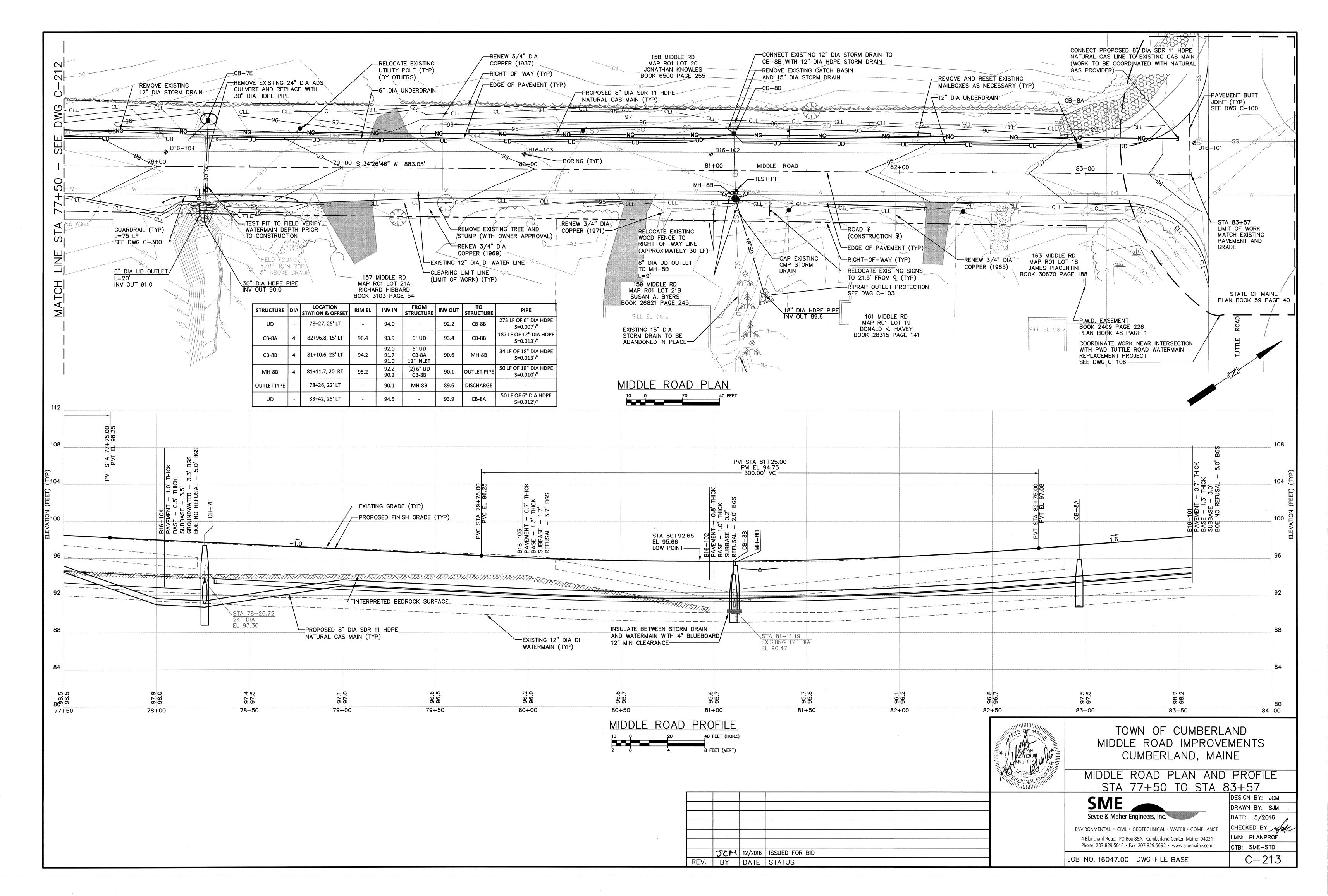












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