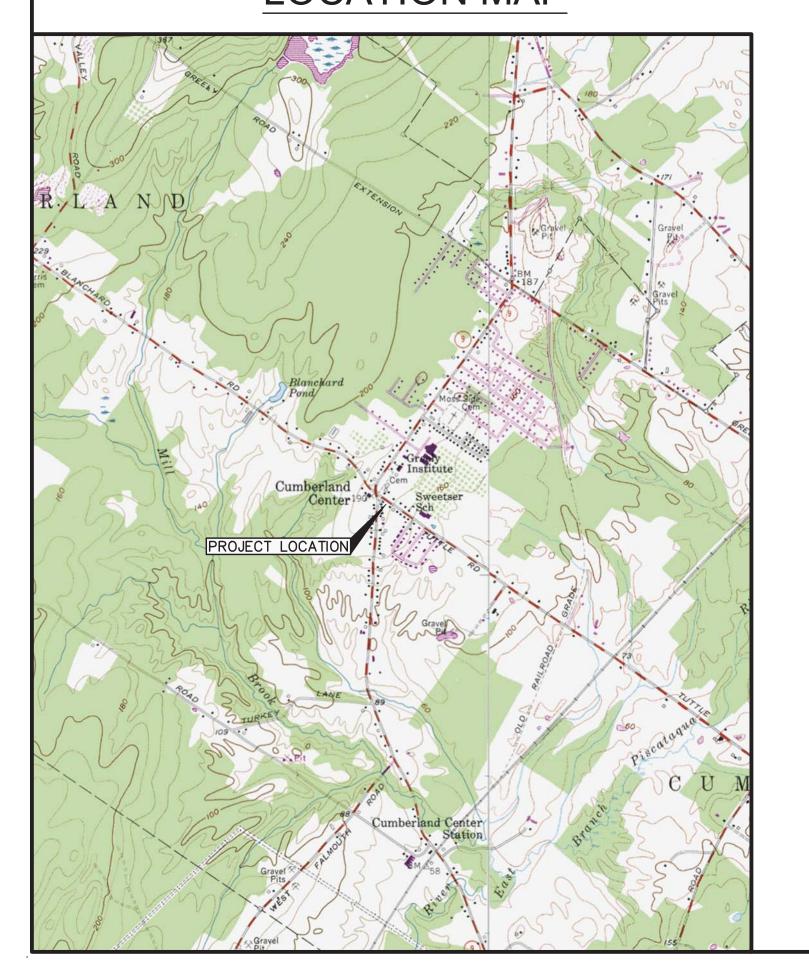
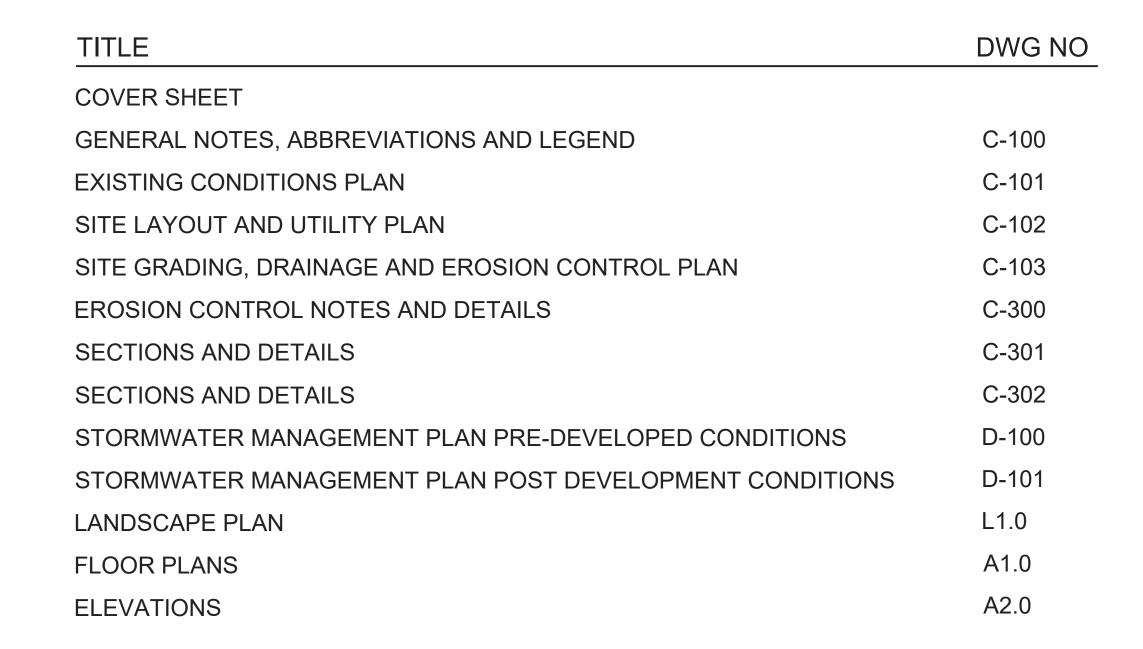
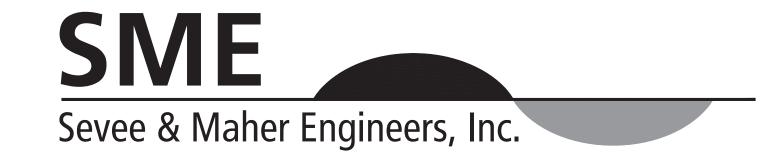
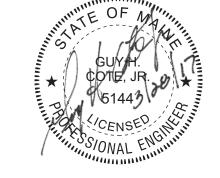
TOWN OF CUMBERLAND CENTRAL FIRE STATION REDEVELOPMENT TUTTLE ROAD CUMBERLAND, MAINE

LOCATION MAP









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

GENERAL NOTES:

- THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION IS NOT GUARANTEED. VERIFY SITE CONDITIONS INCLUDING TEST PITS FOR LOCATIONS AND INVERTS OF UTILITIES AND REPORT ANY DISCREPANCIES TO ENGINEER PRIOR TO PROCEEDING WITH THAT PORTION OF THE WORK.
- 2. PLACE TEMPORARY SOIL STABILIZATION WITHIN 30 DAYS OF INITIAL DISTURBANCE. PLACE PERMANENT SOIL STABILIZATION WITHIN 7 DAYS OF FINAL GRADING.
- 3. EXCAVATE AND STOCKPILE ON-SITE TOPSOIL. TOPSOIL IS TO REMAIN THE PROPERTY OF THE OWNER DURING CONSTRUCTION, AND SHALL NOT BE REMOVED FROM THE SITE. AFTER FINAL LOAM AND SEED, EXCESS TOPSOIL SHALL BE REMOVED FROM SITE BY CONTRACTOR.
- 4. PAVEMENT EDGES SHALL BE TRUE TO LINE, SAWCUT EXISTING PAVEMENT IN SMOOTH STRAIGHT LINE WHERE NEW PAVEMENT JOINS. PROVIDE TACK COAT LAYER AS SPECIFIED.
- 5. CLEAN SEDIMENTS FROM NEW AND EXISTING STORM DRAIN PIPES AND CATCH BASINS.
- 6. SLOPE CONDUITS AWAY FROM BUILDING TO HANDHOLE OR UTILITY POLE TO AVOID GROUNDWATER SEEPAGE INTO BUILDING.

GRADING NOTES:

- ADD 6-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.
- 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.

SURVEYOR'S NOTES

- 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.
- 2. DIG SAFE MUST BE CONTACTED AND CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND DIMENSIONS OF ALL UTILITIES PRIOR TO EXCAVATION.
- 3. THE SOURCE OF BEARINGS FOR THIS LAND SURVEY WAS MAINE STATE GRID PLANE NORTH AMERICAN DATUM 1983. ELEVATIONS AND CONTOURS NGVD 1929.
- 4. THE PROPERTY SURVEYED IS DESCRIBED IN A DEED TO TOWN OF CUMBERLAND AS DESCRIBED IN DEED BOOK 2989 PAGE 287 AND DEED BOOK 10327 PAGE 210.
- 5. THE PROPERTY IS DEPICTED ON THE TOWN ASSESSOR'S MAP U11 AS LOT 27 AND 28.
- 6. THE PARCEL SURVEYED CONTAINS AN AREA OF 1.01 ACRES, MORE OR LESS.
- 7. TUTTLE ROAD REDEFINED IN 1926 FROM 4 RODS TO 3 RODS (49.5') REFERENCE IS MADE TO CUMBERLAND COUNTY COMMISSIONERS RECORDS PLAN BOOK 5 PAGE 2.

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
- 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.

TYPICAL ABBREVIATIONS:

ACCMP ACP AC AGG ALUM APPD	ASPHALT COATED CMP ASBESTOS CEMENT PIPE ACRE AGGREGATE ALUMINUM APPROVED	D DBL DEG OR ° DEPT DI DIA OR Ø	DEGREE OF CURVE DOUBLE DEGREE DEPARTMENT DUCTILE IRON DIAMETER	HDPE HORIZ HP HYD	HIGH DENSITY POLYETHYLENE HORIZONTAL HORSEPOWER HYDRANT INSIDE DIAMETER	PERF PP PSI PVC PVMT	PERFORATED POWER POLE POUNDS PER SQUARE INCH POLYVINYL CHLORIDE PAVEMENT
APPROX ARMH	APPROXIMATE AIR RELEASE MANHOLE	DIM DIST	DIMENSION DISTANCE	IN OR " INV	INCHES INVERT	QTY	QUANTITY
ASB ASP	ASBESTOS ASPHALT	DN DR	DOWN DRAIN	INV EL	INVERT ELEVATION	RCP ROW	REINFORCED CONCRETE PIPE RIGHT OF WAY
AUTO AUX AVE	AUTOMATIC AUXILIARY AVENUE	DWG EA	DRAWING EACH	LB LC LD	POUND LEACHATE COLLECTION LEAK DETECTION	RAD REQD RT	RADIUS REQUIRED
AZ	AZIMUTH	EG ELEC	EXISTING GROUND OR GRADE ELECTRIC	LF LOC	LINEAR FEET LOCATION	RTE	RIGHT ROUTE
BCCMP BM	BITUMINOUS COATED CMP BENCH MARK	EL ELB EOP	ELEVATION ELBOW EDGE OF PAVEMENT	LT MH	LEACHATE TRANSPORT MANHOLE	S SCH	SLOPE SCHEDULE
BIT BLDG BOT	BITUMINOUS BUILDING BOTTOM	EQUIP EST	EQUIPMENT ESTIMATED	MJ MATL	MECHANICAL JOINT MATERIAL	SF SHT SMH	SQUARE FEET SHEET SANITARY MANHOLE
BRG BV	BEARING BALL VALVE	EXC EXIST	EXCAVATE EXISTING	MAX MFR	MAXIMUM MANUFACTURE	ST STA	STREET STATION
CB CEN	CATCH BASIN CENTER	FI FG	FIELD INLET FINISH GRADE	MIN MISC MON	MINIMUM MISCELLANEOUS MONUMENT	SY TAN	SQUARE YARD TANGENT
CEM LIN	CEMENT LINED CORRUGATED METAL PIPE	FBRGL FDN	FIBERGLASS FOUNDATION	NITC	NOT IN THIS CONTRACT	TDH TEMP TYP	TOTAL DYNAMIC HEAD TEMPORARY TYPICAL
CO CF CFS	CLEAN OUT CUBIC FEET CUBIC FEET PER SECOND	FLEX FLG FLR	FLEXIBLE FLANGE FLOOR	NTS N/F NO OR #	NOT TO SCALE NOW OR FORMERLY NUMBER	UD	UNDERDRAIN
CI CL	CAST IRON CLASS	FPS FT OR '	FEET PER SECOND FEET	OC	ON CENTER	V VA TEE	VOLTS VALVE ANCHORING TEE
CONC CONST CONTR	CONCRETE CONSTRUCTION CONTRACTOR	FTG GA	FOOTING GAUGE	OD PC	OUTSIDE DIAMETER POINT OF CURVE	VERT WG	VERTICAL WATER GATE
CS CTR	CURB STOP CENTER	GAL GALV	GALLON GALVANIZED	PD PI	PERIMETER DRAIN POINT OF INTERSECTION	W/ W/O	WATER GATE WITH WITHOUT
CU CY	COPPER CUBIC YARD	GPD GPM	GALLONS PER DAY GALLONS PER MINUTE	PIV PT	POST INDICATOR VALVE POINT OF TANGENT	YD	YARD

				-
				-
	JTR	3/2017	REVISED PER ADDENDUM 3 - ISSUED FOR CONSTRUCTION	
	JTR	3/2017	ISSUED FOR BID	
	JTR	2/2017	ISSUED TO TOWN FOR SITE PLAN APPROVAL	
REV.	BY	DATE	STATUS	

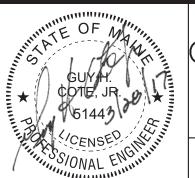
LEGEND

	<u>LEGEND</u>				
EXISTING		PROPOSED			
	PROPERTY LINE				
	BUILDING SETBACK				
	EASEMENT				
	CENTER LINE				
•	MONUMENT				
(a)	IRON PIPE				
•	IRON ROD				
•	DRILL HOLE				
<u> </u>	BUILDING				
	SIGN				
	EDGE PAVEMENT				
	GRAVEL ROAD				
	CURB LINE				
	TREE LINE				
→ TP-7	TEST PIT				
M MW-8	MONITORING WELL				
184	CONTOURS	 100 			
	SPOT GRADE	× 114.23			
G	GAS	G			
W	WATER	W			
SS	SEWER				
SD	STORM DRAIN	SD			
UD	UNDER DRAIN	UD			
——Е——	ELECTRIC LINES				
	MAIL BOX				
\bowtie	GATE VALVE				
	SIGNAL LIGHT POLE				
Ø	UTILITY POLE				
	HYDRANT				
	CATCH BASIN				
(S) (MH)	MANHOLE	•			
	POTABLE WELL				
\rightarrow	CULVERT				
XX	CHAIN LINK FENCE				
000000000	STONE WALL				
***************************************	CONIFEROUS TREE				
	DECIDUOUS TREE				
	DEAD TREE				

EROSION CONTROL LEGEND







TOWN OF CUMBERLAND CENTRAL FIRE STATION REDEVELOPMENT TUTTLE ROAD CUMBERLAND, MAINE

GENERAL NOTES, LEGEND AND ABBREVIATIONS

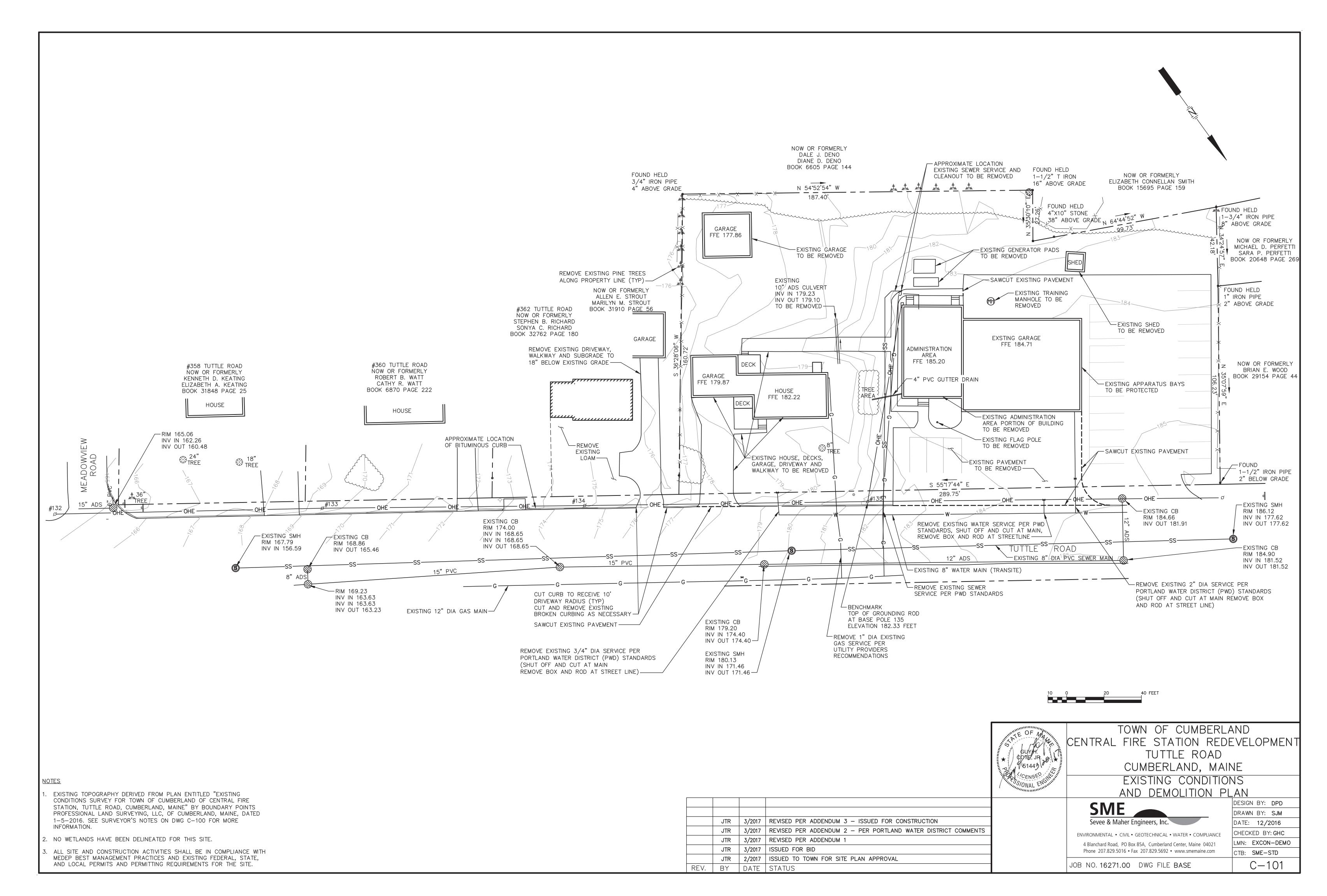
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Sevee & Maher Engineers, Inc.				
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE				
4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021				

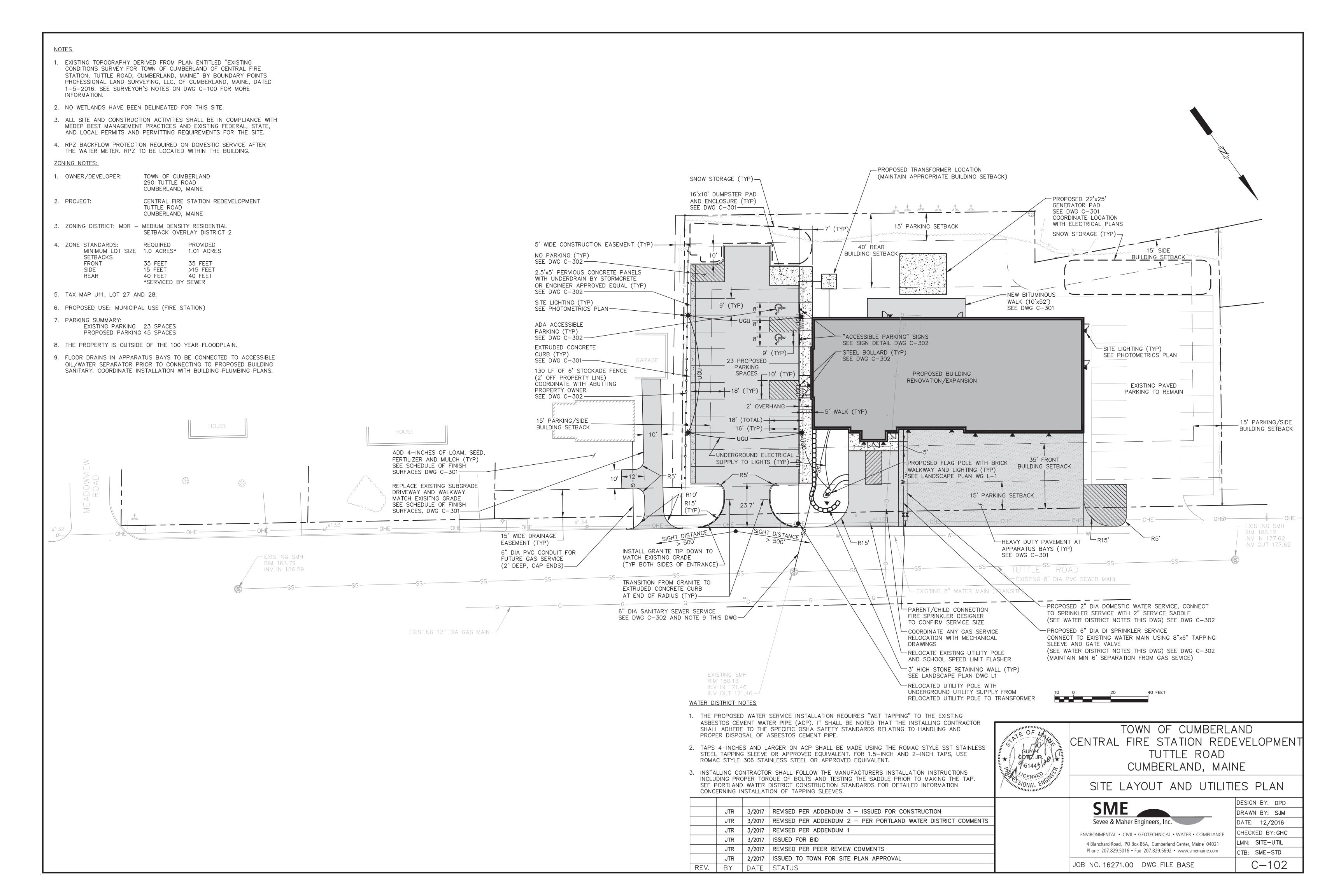
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JOB NO. 16271.00 DWG FILE SYMSHT

DRAWN BY: SJM DATE: 12/2016 CHECKED BY: GHC LMN: NONE CTB: SME-STD C-100

DESIGN BY: DPD





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1. EXISTING TOPOGRAPHY DERIVED FROM PLAN ENTITLED "EXISTING CONDITIONS SURVEY FOR TOWN OF CUMBERLAND OF CENTRAL FIRE STATION, TUTTLE ROAD, CUMBERLAND, MAINE" BY BOUNDARY POINTS PROFESSIONAL LAND SURVEYING, LLC, OF CUMBERLAND, MAINE, DATED 1-5-2016. SEE SURVEYOR'S NOTES ON DWG C-100 FOR MORE INFORMATION. 2. NO WETLANDS HAVE BEEN DELINEATED FOR THIS SITE. 3. 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. 4. RPZ BACKFLOW PROTECTION REQUIRED ON DOMESTIC SERVICE AFTER THE WATER METER. RPZ TO BE LOCATED WITHIN THE BUILDING. SNOW STORAGE (TYP)-SNOW STORAGE (TYP) TRANSFORMER PAD FUTURE 4" DIA UNDERDRAIN 5-FEET OFF PROPERTY LINE TO BE INSTALLED IF NECESSARY 1 YEAR AFTER CONSTRUCTION -GENERATOR PAD TO BE COORDINATED WITH ABUTTING PROPERTY OWNER-<u> 174.96</u> 115'x2.5' PERVIOUS CONCRETE PANELS WITH 4" DIA UNDERDRAIN (SLOPE TOWARDS AND CONNECT TO CB-1) BY STORM CRETE OR 174.12 ENGINEER APPROVED EQUAL (TYP) SEE DWG C-302-174.12 PROPOSED CB-1 WITH DOUBLE GRATE 175.08 174.58 RIM 173.52 INV OUT 170.90 -PROPOSED BUILDING 95 LF OF 12" DIA SD RENOVATION/EXPANSION S=0.010'/'----173.71 RENOVATED GARAGE FFE 184.71 184.71 184.61 SILT FENCE (TYP) 176.01 BC 176.51 TC SEE DWG C-300 184.00 \ HOUSE EX 184.68 HOUSE PROPOSED DMH-1 PROPOSED DMH-2 RIM 177.0 RIM 173.5 — RIM 165.06 INV IN 169.95 (12") / INV IN 162.26 INV IN 169.15 (15" SD) _APPARATUS BAYS (TYP) INV IN 169.95 (FD) INV OUT 169.05 (15" SD) SEE DWG C-301 INV OUT 169.85 — COVER WITH 6-INCHES OF LOAM, SEED AND MULCH-+167.62 +175.43 €169.32 ♀ ^─FLAGPOLE AND WALKWAY — EXISTING CB 178.00 179.00 SEE LANDSCAPE PLAN DWG L-1 RIM 184.66 178.25 178.00 179.25 ROOF GUTTER DROPS TO EXISTING CB INV OUT 181.91 179.00 */* FOUNDATION DRAINS (TYP) RIM 174.00 INV IN 168.65 -67 LF OF 15" DIA SD 3' HIGH STONE RETAINING WALL (TYP) /INV IN 168.65 +169.55 / RIM 168.86 S=0.010'/' SEE LANDSCAPE PLAN DWG L-1 INV OUT 168.65— TUTTLE +165.08 INV OUT 165.46 - COORDINATE SIZE OF FOUNDATION RIM 184.90 DRAIN OUTLET WITH ARCHITECTURAL INV IN 181.52 AND PLUMBING DRAWINGS INV OUT 181.52 -PRIOR TO CONSTRUCTION, 15" PVC EXCAVATE TEST PIT TO VERIFY STABILIZED CONSTRUCTION LOCATION OF EXISTING WATER MAIN -ENTRANCE/EXIT (TYP) COORDINATE EXCAVATION WITH SEE DWG C-300 -RIM 169.23 PORTLAND WATER DISTRICT (PWD) INV IN 163.63 INV IN 163.63 -40 LF OF 15" DIA SD INV OUT 163.23 S=0.010'/'EXISTING CB RIM 179.20 INV IN 174.40 INV OUT 174.40 TOWN OF CUMBERLAND CENTRAL FIRE STATION REDEVELOPMENT TUTTLE ROAD CUMBERLAND, MAINE SITE GRADING, DRAINAGE AND EROSION CONTROL PLAN DESIGN BY: DPD **SME** DRAWN BY: SJM JTR | 3/2017 | REVISED PER ADDENDUM 3 - ISSUED FOR CONSTRUCTION Sevee & Maher Engineers, Inc. DATE: 12/2016 JTR | 3/2017 | REVISED PER ADDENDUM 1 CHECKED BY: GHC ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE JTR | 3/2017 | ISSUED FOR BID LMN: SITE-GRADE 4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021 JTR | 2/2017 | REVISED PER PEER REVIEW COMMENTS Phone 207.829.5016 • Fax 207.829.5692 • www.smemaine.com CTB: SME-STD JTR | 2/2017 | ISSUED TO TOWN FOR SITE PLAN APPROVAL C - 103JOB NO. 16271.00 DWG FILE BASE REV. | BY | DATE | STATUS

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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), October 2016.
- 2. The Town of Cumberland or their agent 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 disturbance.
- 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 mulched.
- 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
- 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
- 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 ground 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 areas; 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;

lenath;

- at low points with concentrated flows and in gullies; • 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, ADirt Bag 55" sediment filter bag by ACF Environmental, or other approved Best Management Practices (BMP's).
- b. In sensitive areas, 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 hav 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 deterioration.
- 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 Rye 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 resource.
- 3. 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 hay 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.

7. 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 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

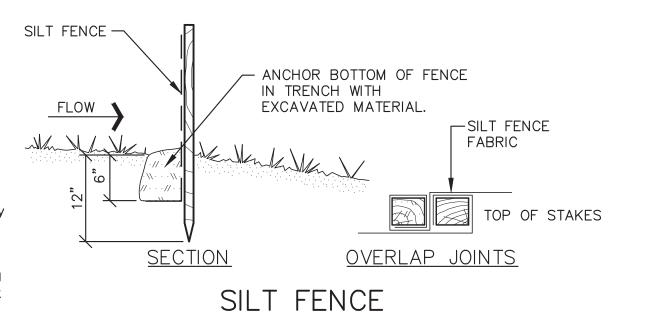
In general, the expected sequence of construction for each phase is provided below. Construction is proposed to start in June 2017 and be complete in November 2018.

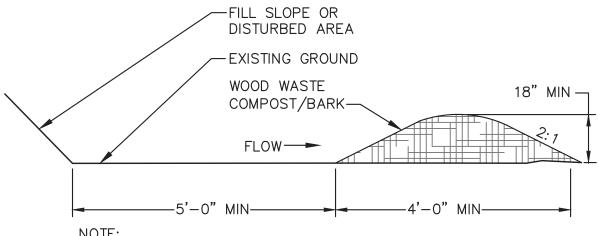
- Site preparation.
- Install temporary erosion control measures.
- Install utilities, drains and construct subgrade.
- Perform site stabilization (complete paved area, gravel and bituminous pavement; loam, seed, and mulch) and other miscellaneous items.

Remove temporary erosion control measures after all disturbed areas are

• Clean sediment from temporary collection structures; complete construction of stormwater management structures

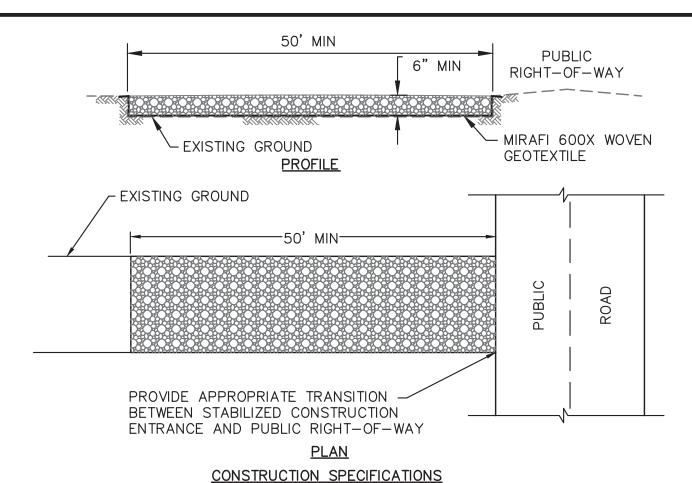
-SILT FENCE FABRIC - HARDWOOD STAKES SPACED AT 6'-0" MAX OC ON DOWNSTREAM SIDE We will the the wealth LOAM AND SEED ELEVATION





BARK MULCH SEDIMENT BARRIERS MAY BE USED AS AN ALTERNATE TO SILT FENCE WHEN APPROVED BY THE ENGINEER.

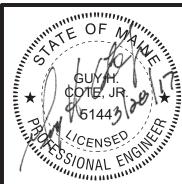
BARK MULCH SEDIMENT BARRIER



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

- 2. LENGTH AS EFFECTIVE, BUT NOT LESS THAN 50 FEET.
- 3. THICKNESS NOT LESS THAN SIX (6) INCHES.
- 4. WIDTH 10 FEET MINIMUM, OR NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
- 5. 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

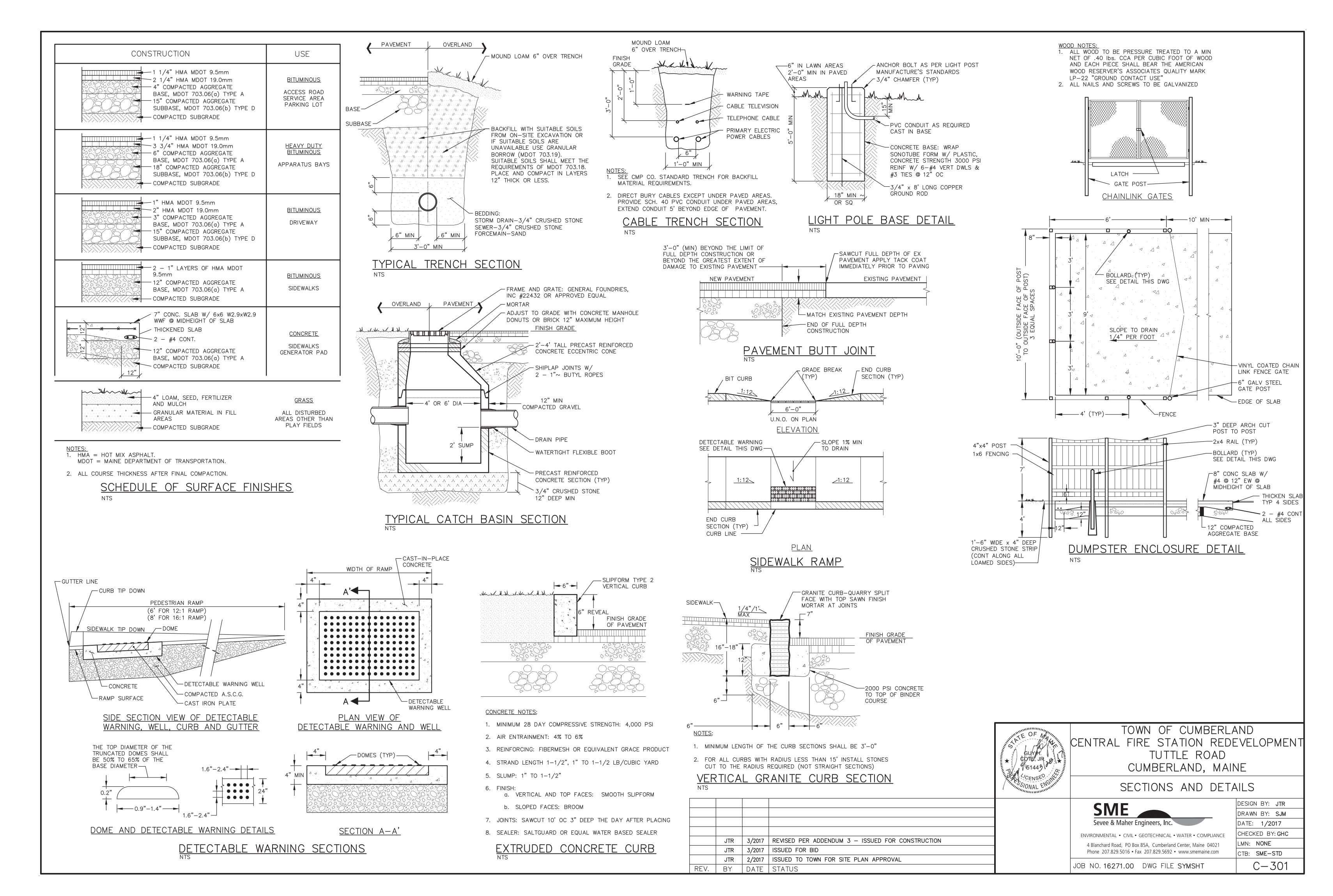


TOWN OF CUMBERLAND CENTRAL FIRE STATION REDEVELOPMENT TUTTLE ROAD CUMBERLAND, MAINE

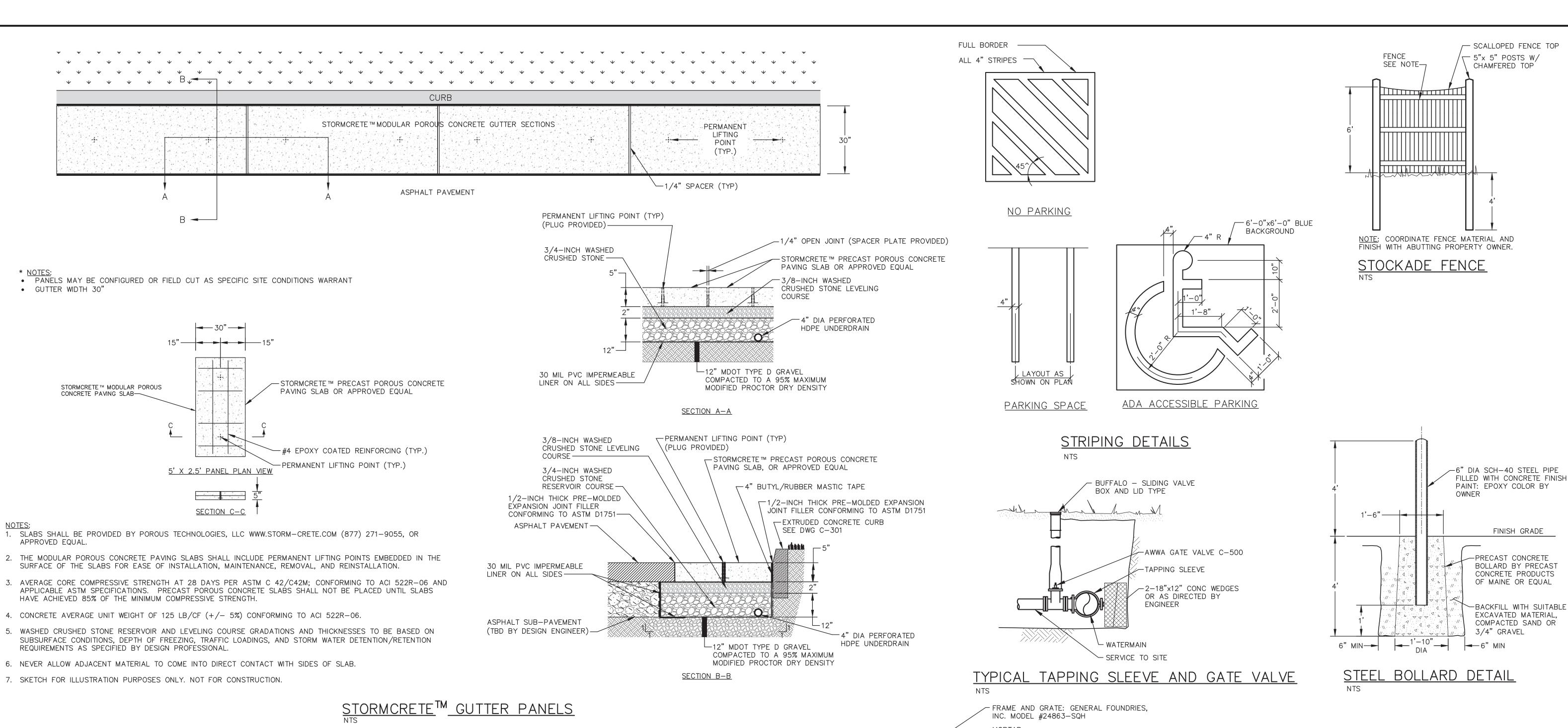
EROSION CONTROL NOTES AND DETAILS

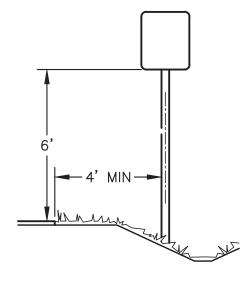
CNAE	DESIGN BY: JTR
SME	DRAWN BY: SJM
Sevee & Maher Engineers, Inc.	DATE: 1/2017
ENVIRONMENTAL • CIVIL • GEOTECHNICAL • WATER • COMPLIANCE	CHECKED BY: GHC
4 Blanchard Road, PO Box 85A, Cumberland Center, Maine 04021	LMN: NONE
Phone 207.829.5016 • Fax 207.829.5692 • www.smemaine.com	CTB: SME-STD
JOB NO. 16271.00 DWG FILE SYMSHT	C-300

JTR | 3/2017 | REVISED PER ADDENDUM 3 - ISSUED FOR CONSTRUCTION JTR | 3/2017 | ISSUED FOR BID JTR | 2/2017 | ISSUED TO TOWN FOR SITE PLAN APPROVAL REV. | BY | DATE | STATUS



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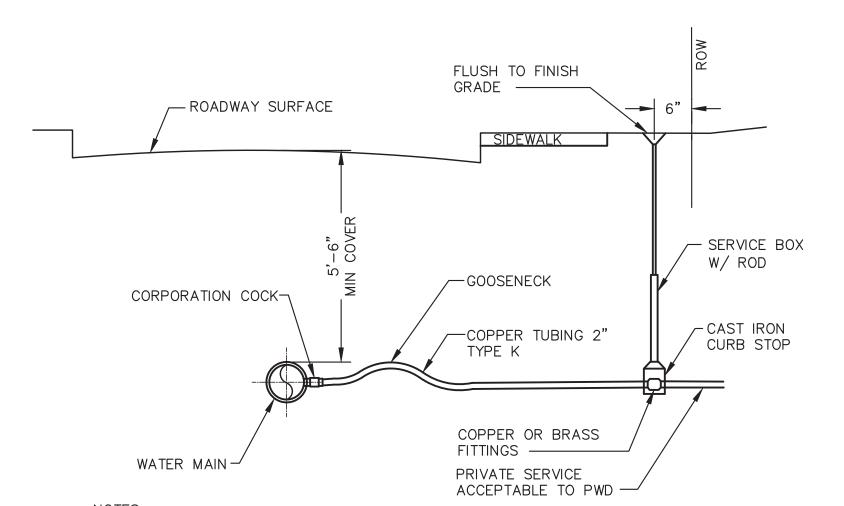




NOTES:

- 1. SIGNS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, HIGHWAYS AND BRIDGES REVISION OF DECEMBER 2002, SECTION 645.
- 2. ALL PERMANENT SIGNS ON THIS PROJECT ARE CLASSIFIED UNDER SECTION 645.03(b) TYPE 1 REGULATORY WARNING AND ROUTE MARKER ASSEMBLÝ SIGNS.
- 3. SIGN MATERIAL SHALL BE AS SPECIFIED IN SECTION 719 OF THE MDOT STANDARD SPECIFICATIONS.
- 4. POSTS SHALL BE METAL CHANNELS AS SPECIFIED IN SECTION 720.08. ALTERNATE POSTS MAY BE 4"x6" WOOD AS SPECIFIED IN SECTION 720.12, AS APPROVED BY ENGINEER.
- 5. POSTS IN THE PUBLIC RIGHT-OF-WAY TO BE ON BREAKAWAY POSTS AS SPECIFIED IN SECTION 720 OF THE MDOT STANDARD SPECIFICATIONS.

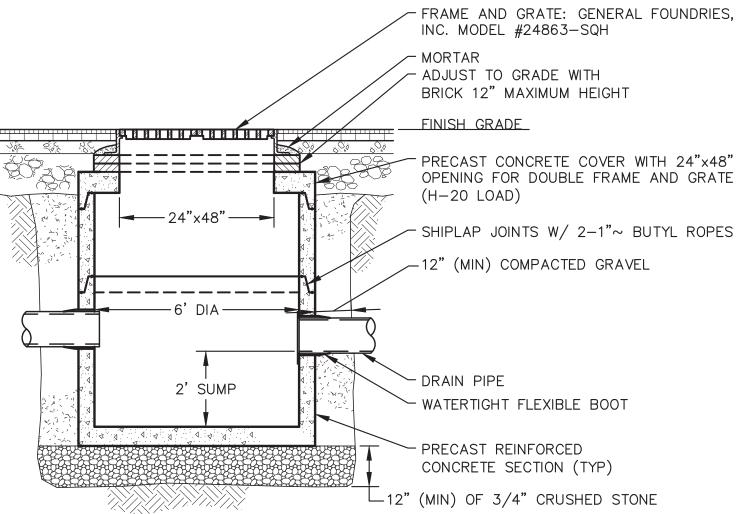




BED AND BACKFILL AROUND CURB STOP WITH CRUSHED STONE. 2. SERVICE CONNECTIONS WILL BE INSTALLED SO THAT THE OUTLET IS AT AN ANGLE OF

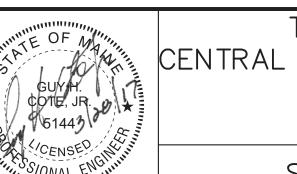
NOT MORE THAN 10° ABOVE THE HORIZONTAL 3. PUT GOOSENECK IN SERVICE LINE PRIOR TO CONNECTING TO MAIN AND CURB STOP.

TYPICAL SERVICE CONNECTION DETAIL



TYPICAL CATCH BASIN SECTION (DOUBLE GRATE)

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		JTR	3/2017	REVISED PER ADDENDUM 3 - ISSUED FOR CONSTRUCTION	\exists
		JTR	3/2017	REVISED PER ADDENDUM 1	
		JTR	3/2017	ISSUED FOR BID	
		JTR	2/2017	ISSUED TO TOWN FOR SITE PLAN APPROVAL	
	REV.	BY	DATE	STATUS	

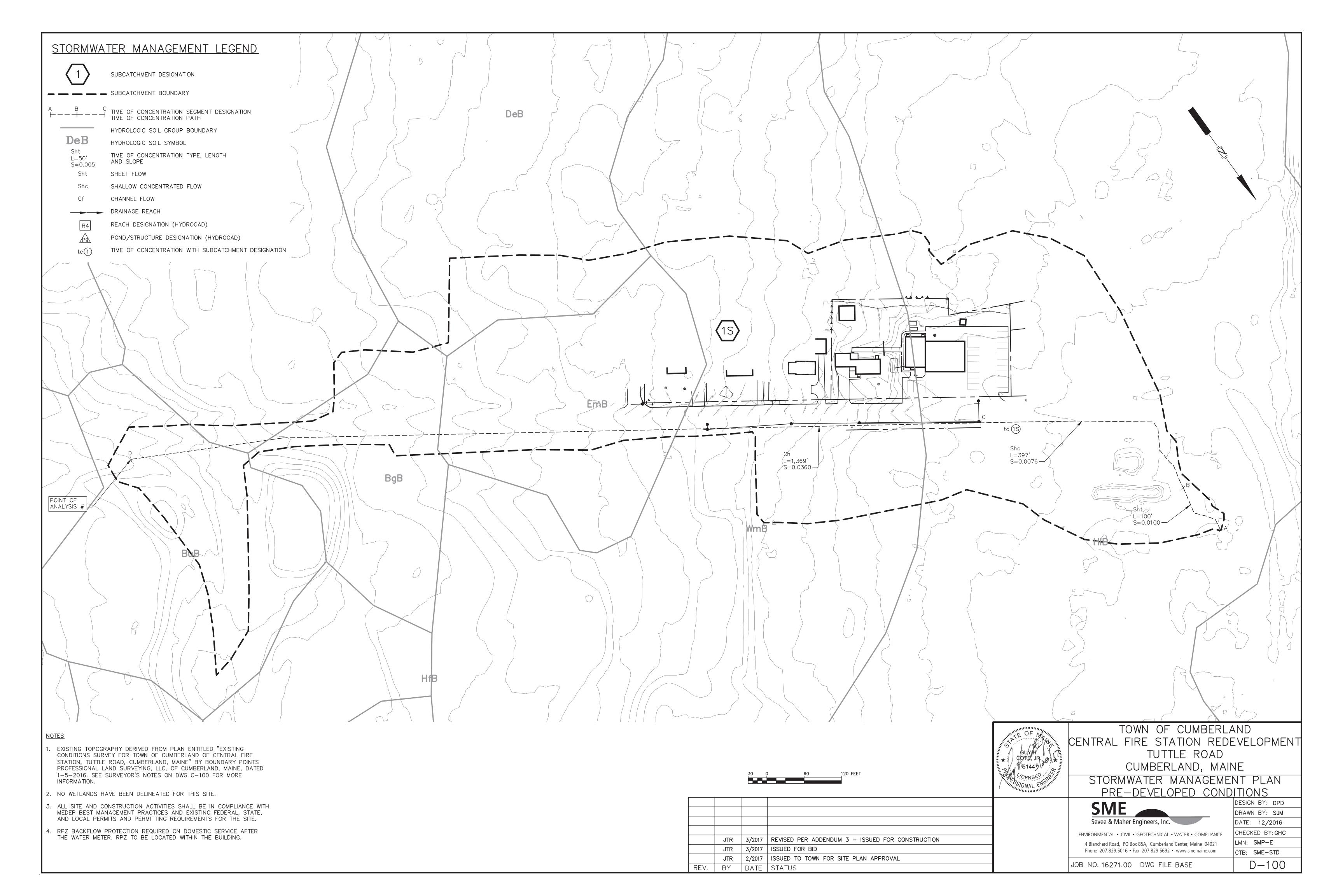


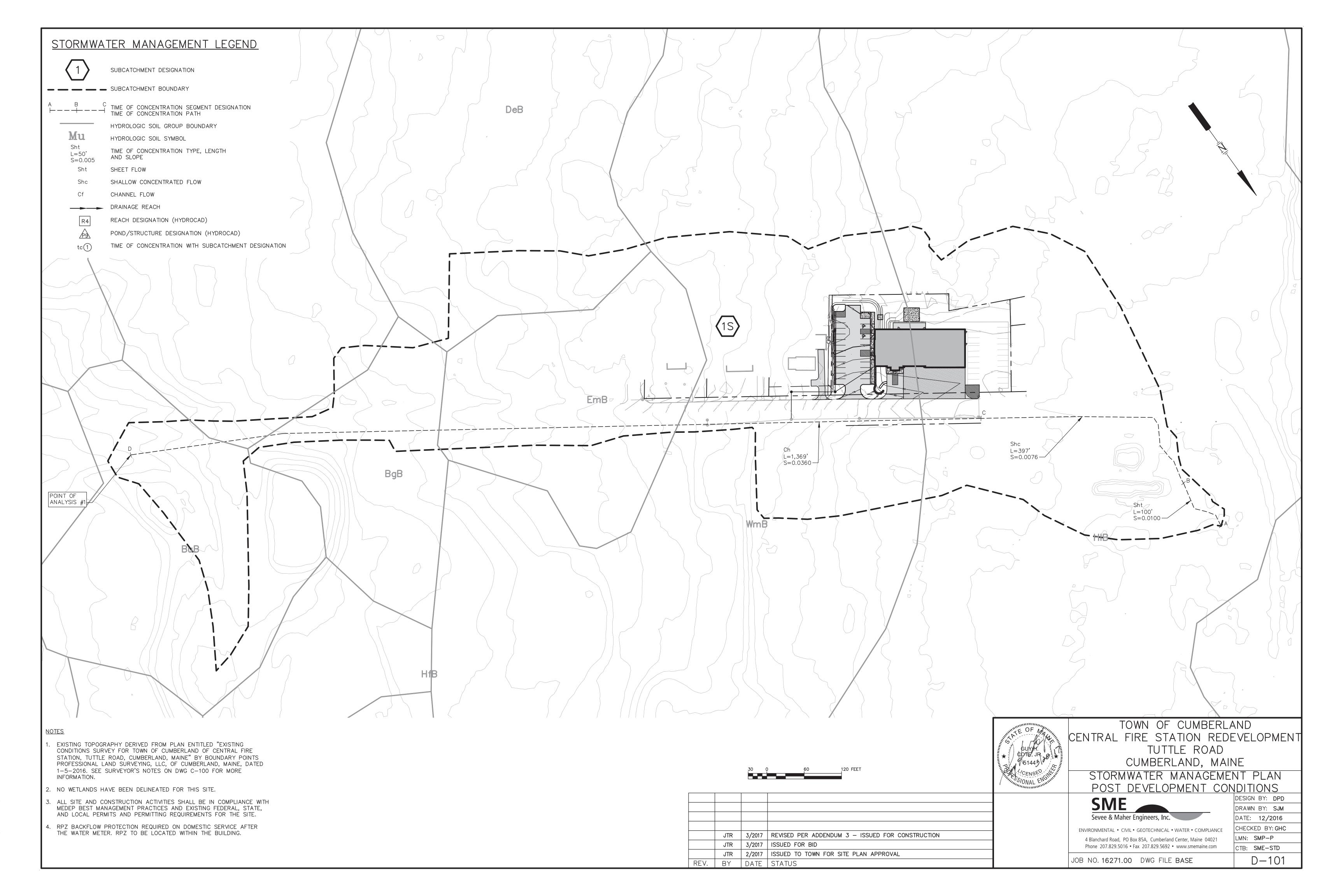
TOWN OF CUMBERLAND CENTRAL FIRE STATION REDEVELOPMENT TUTTLE ROAD CUMBERLAND, MAINE

FINISH GRADE

SECTIONS AND DETAILS

CNAE	DESIGN BY: JTR
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