NOTES:
DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.

ANY ALTERNATE TRENCHING OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY OF PORTLAND, DEPARTMENT OF PUBLIC SERVICES.

NOTES

1. ALTERNATIVE CONSTRUCTION METHODS OR PAYMENT METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
2. IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
3. DIMENSION B SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE; BUT IN ALL CASES DIMENSION B SHALL BE AT LEAST 9".
4. DIMENSION A IS THE MAXIMUM WIDTH ALLOWED FOR CALCULATING PAY QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION A SHALL BE BASED ON PIPE DIAMETER D, AS SET FORTH IN THE FOLLOWING TABLE.

PIPE DIAMETER, D (INCHES)	MAX. TRENCH WIDTH, A (FEET)
4	4.0
6	4.0
8	4.0
10	4.0
12	5.0
15	5.0
18	5.0
21	5.0
24	6.0
27	6.0
30	6.0
36	6.0
42	7.0
48	7.0

TYPICAL PIPE INSTALLATION - NOTES

1 / C4.1

TYPICAL PIPE TRENCH & ROAD REPAIR DETAIL

NOT TO SCALE

2 / C4.1

LOAM AND SEED DETAIL

NOT TO SCALE

3 / C4.1

FOUNDATION DRAIN DETAIL

NOT TO SCALE

SERVICE	CONDUIT SIZE*	CONDUIT TYPE	UTILITY
'A'	4"	SCHEDULE 40 P.V.C. ELECTRICAL GRADE	PRIMARY POWER
'B'	4"	SCHEDULE 40 P.V.C. ELECTRICAL GRADE	SECONDARY POWER
'C'	3"	SCHEDULE 40 P.V.C. ELECTRICAL GRADE	TELEPHONE
'D'	3"	SCHEDULE 40 P.V.C. ELECTRICAL GRADE	CATV

NOTES:
1. ALL WORK SHALL COMPLY WITH THE RESPECTIVE UTILITY COMPANY STANDARDS.
2. SEE UTILITIES PLANS FOR CONDUIT LOCATIONS.
3. CONTRACTOR TO PROVIDE 1/4" POLYPROPYLENE PULL ROPES IN ALL CONDUITS.
4. **CONTRACTOR SHALL VERIFY CONDUIT SIZE WITH APPLICABLE UTILITY COMPANIES.**

4 / C4.1

UNDERGROUND UTILITY TRENCH SECTION (MULITPLE CONDUITS)

NOT TO SCALE

NOTES:
1. BACKFILL MATERIAL WITHIN TRENCH BEYOND UNDERDRAIN LATERAL LIMITS SHALL, AS A MINIMUM, CONFORM TO THE REQUIREMENTS OF GRANULAR BORROW.
2. UNDERDRAIN SHALL CONFORM TO THE REQUIREMENTS OF MDOT 605.04, TYPE 'B', EXCEPT AS NOTED.
3. OUTLETS SHALL BE CONNECTED TO THE STORM DRAIN SYSTEM AS SHOWN ON THE PLANS, OR GRADED BY GRAVITY TO A SUITABLE DISCHARGE POINT.

5 / C4.1

UNDERDRAIN TRENCH DETAIL

NOT TO SCALE

NOTE: IF SOIL AND SUB SURFACE WATER CONDITIONS PERMIT CONCRETE PAD, ANCHOR BOLTS, TURNBUCKLES AND CABLES (HOLD DOWN EQUIPMENT) ARE NOT MANDATORY. TANK CAN THEN BE PLACED ON 6" OF COMPACTED SAND BED.

DETAIL #1 - CONCRETE PAD DETAIL

NOTES:

NOTES:
ALL FILL SHALL BE FREE OF STONES OR MATTER THAT MAY DAMAGE COATING OF TANK, OR CLEAN SAND BACKFILL.
CONTAINER SHALL BE GIVEN A PROTECTION COATING FOLLOWING MANUFACTURERS RECOMMENDATIONS, BEFORE BEING PLACED UNDERGROUND.
IN THE EVENT HIGH WATER TABLE ELEVATIONS EXCEED THE BOTTOM TANK INVERT ELEVATION THEN A CONCRETE BALLAST PAD COMPLETE WITH HOLD DOWN EQUIPMENT MAY BE REQUIRED.
ALL STEEL CABLE AND ANCHORING MATERIAL IS TO BE MASTIC COATED PRIOR TO ANY BACKFILLING OF TANK (I.E. CARBOLINE 893-PRIMER AND CON-LUX EPOLON 22 BLACK MASTIC).
BACKFILL IS TO BE COMPACTED BY MECHANICAL MEANS (VIBRATION AND TAMPERED) IN INCREMENTS OF ONE FOOT UP TO GRADE.

ANODE ATTACHMENT DETAIL

DETAIL #2 - ANCHOR BOLT
& TURNBUCKLE DETAIL

6 / C4.1

UNDERGROUND 500 G.W.C. LP GAS TANK INSTALLATION

NOT TO SCALE

PERMITTING SET

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STATE OF MAINE
SILAS W. CANAVAN
No. 12639
PROFESSIONAL ENGINEER
9/5/17

Spirn and Gulliver Residence
7 Diamond Pass
Peaks Island, Maine

Sam Sprin & Kate Gulliver
61 Chandler Street, Apt. 2
Boston, MA

Rev.	Date	Description	Drawn	Check
1	9/5/17	Revised Per City Comments	SWC	SWC

Sheet Title:
DETAILS

Job No.: 346
Date: June 15, 2017
Scale: NTS
Drawn: SWC
Checked: WRW

Sheet No.: C4.1