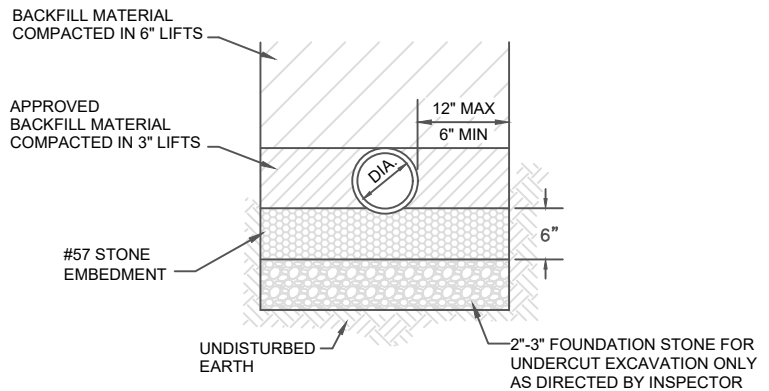
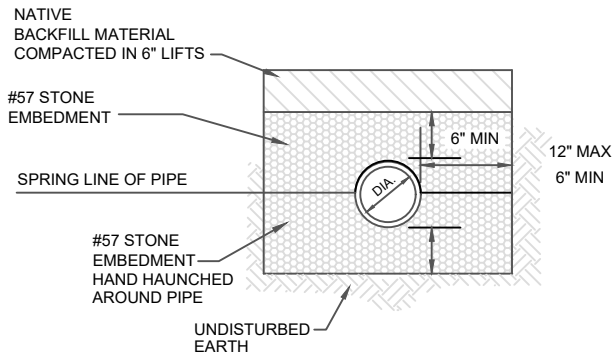


**STANDARD EXCAVATION**

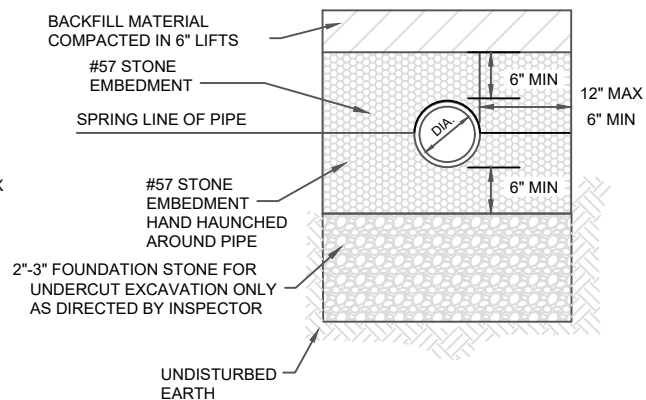


**UNDERCUT EXCAVATION  
IN UNSTABLE SOILS TYPES**

### **DUCTILE IRON GRAVITY SEWER**



**STANDARD EXCAVATION**



**UNDERCUT EXCAVATION  
IN UNSTABLE SOILS TYPES**

### **PIPE IN WET OR UNSTABLE CONDITIONS ALL PIPE TYPES (AS DIRECTED BY INSPECTOR)**

**NOTES:**

1. CONSTRUCTION OF TRENCHES SHALL COMPLY WITH ALL FEDERAL, STATE AND LOCAL SAFETY AND HEALTH REGULATIONS WHICH HAVE JURISDICTION AT THE PROJECT SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH THE APPLICABLE REGULATIONS AND FOLLOW THEM ACCORDINGLY.

### **TYPICAL GRAVITY SEWER TRENCHING DETAILS**

N.T.S.



**CITY OF PORTLAND**  
DEPARTMENT OF UTILITIES - SEWER  
STANDARD SEWER DETAILS

REVISION NO: 3  
DATE:06/05/2024

WW-01