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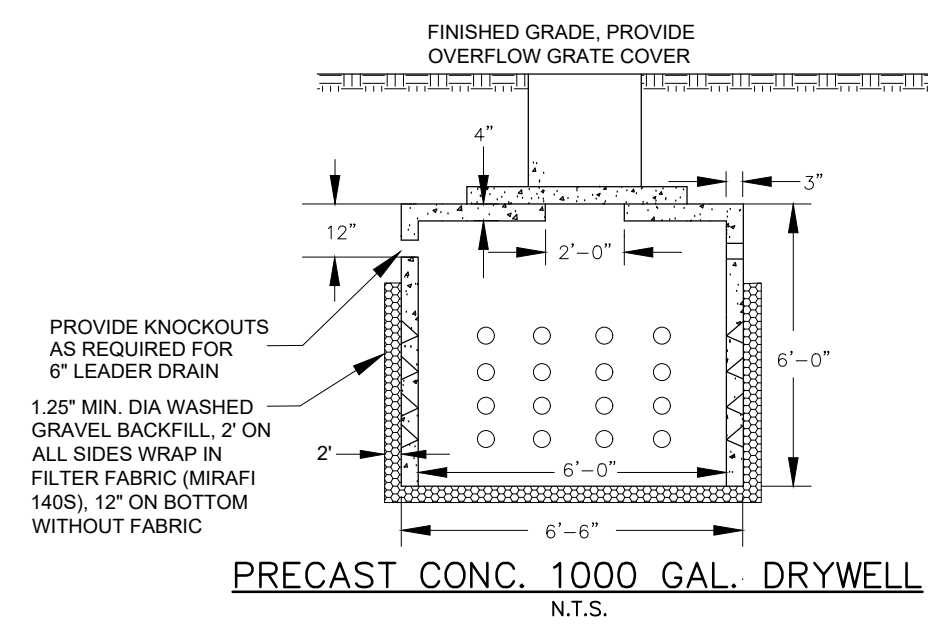
DRAINAGE CALCULATIONS

- Existing site runoff**
Existing impervious area = 482 SF (Vacant Land with concrete)
 $Q = \text{total flow volume} = 2" \text{ runoff over impervious area}$
Q = 80 CF (exist)
- Proposed site runoff**
Proposed impervious area = 1,911 SF (house) + 380 SF (walkways, patio)
Proposed impervious area = 2,291 SF
 $Q = \text{total flow volume} = 2" \text{ runoff over impervious area}$
Q = 382 CF (prop)

Volume of Drainage system required – 302 CF (increase in impervious coverage)

Volume of drainage system to be provided – 361 CF (total roof area)

1000 gallon seepage pit designed or approved equal to handle same amount of volume of storage (such as a chamber system)



SEEPAGE PIT DESIGN CALCULATOR	
2 inches for each square foot of roof area	
AREA CONTRIBUTING TO SEEPAGE PIT (ROOF AREA)	
1911 S.F.	
VOLUME REQUIRED	
319 C.F.	
VOLUME CAPACITY OF SEEPAGE PIT	
6.5' DIA.	
TANK VOLUME FOR A STANDARD 1000 GALL. TANK	
$V_{\text{Tank}} = (\pi) (6^2 / 4) (\text{Depth})$	
$V_{\text{Tank}} = 160 \text{ C.F.}$	
STONE VOLUME	
2' OF CLEAN BROKEN STONE ON SIDES WRAPPED IN FILTER FABRIC AND 12" ON BOTTOM. NO FILTER FABRIC (SEE PLAN)	
Volume of excavation: $10.5' \times 10.5' \times 6' = 661.5 \text{ C.F.}$	
Less Volume of Tank = 160 C.F.	
Net Volume of Stone = 501.5 C.F.	
STONE VOLUME TOTAL ASSUMING 40% VOIDS	
$V_{\text{Stone}} = 0.40 (501.5) = 201 \text{ C.F.}$	
TOTAL SEEPAGE PIT VOLUME	
$V_{\text{Pit}} = V_{\text{Tank}} + V_{\text{Stone}} = 361$	
VOLUME PROPOSED (C.F.)	VOLUME REQUIRED (C.F.)
361	319
SYSTEM IS O.K.	

THIS PROJECT IS EXEMPT FROM SOIL DE-COMPACTION REMEDIATION AND TESTING AS IT IS LOCATED IN AN URBAN REDEVELOPMENT AREA

- NOTES/REFERENCES:
- Boundary information shown hereon based on survey of 181-183 Princeton Ave, Jersey City, NJ, prepared by Pronesti Surveying, Inc. dated 7-21-20.
 - Architectural and site plan information shown hereon based on plans prepared by Mukti Architecture dated 2-23-21, revised through 7-14-21.
 - Intention of this plan is to show compliance with minor development for stormwater management control as well as soil erosion control measures, all as required by the City Completeness Checklist.
 - The maker of this map is not qualified to make a determination as to the absence or presence of any wetlands, contamination or other environmental condition which may affect this property. Therefore no statement is being made or implied by the fact that no evidence of contamination or other environmental condition is being shown on this map.
 - Locations of utilities are approx. Any contractor shall verify exact location in field with utility companies prior to commencement of any construction.

DATE	REVISION	CHD
6		
5		
4		
3		
2		
1		

PROJ. 210828
DATE: 05/19/21
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DRAINAGE DESIGN AND SOIL EROSION AND SEDIMENT CONTROL PLAN AT 183 PRINCETON AVENUE
TAX MAP BLOCK 30104, LOT 25
CITY OF JERSEY CITY, HUDSON COUNTY, NEW JERSEY