

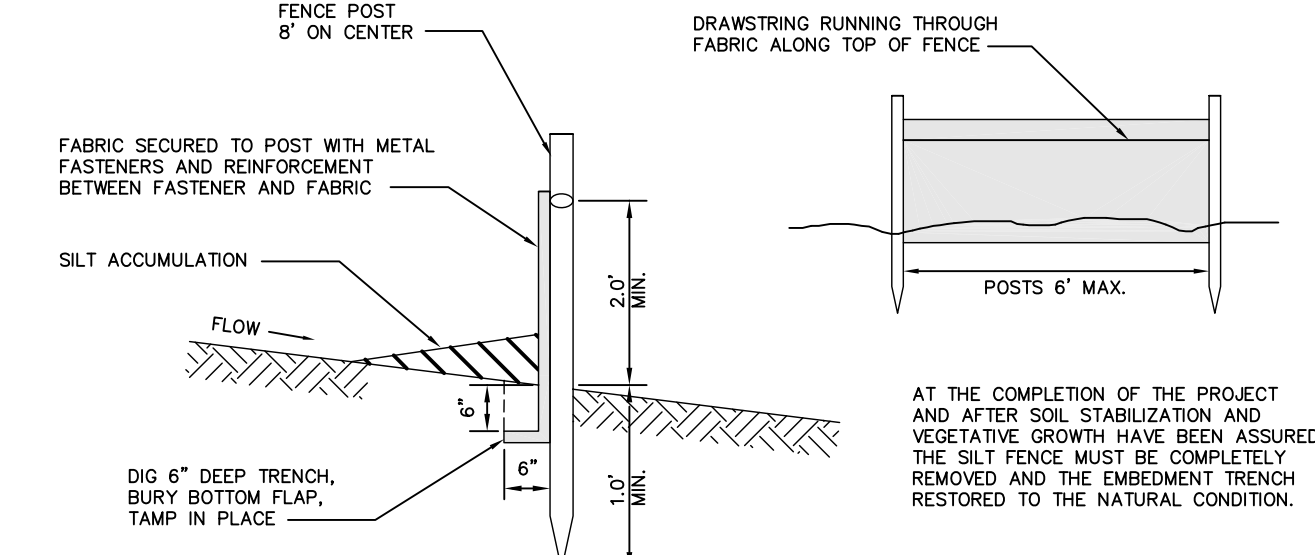
- LEGEND:**
- 100--- EXISTING CONTOUR LINE
 - 97.9 EXISTING CONTOUR LINE
 - 99.2+ EXISTING SPOT ELEVATION
 - 4" PVC LEADER DRAIN
 - EXISTING TREE TO REMAIN
 - EXISTING TREE TO BE REMOVED

PREVAILING FRONT SETBACK ANALYSIS:

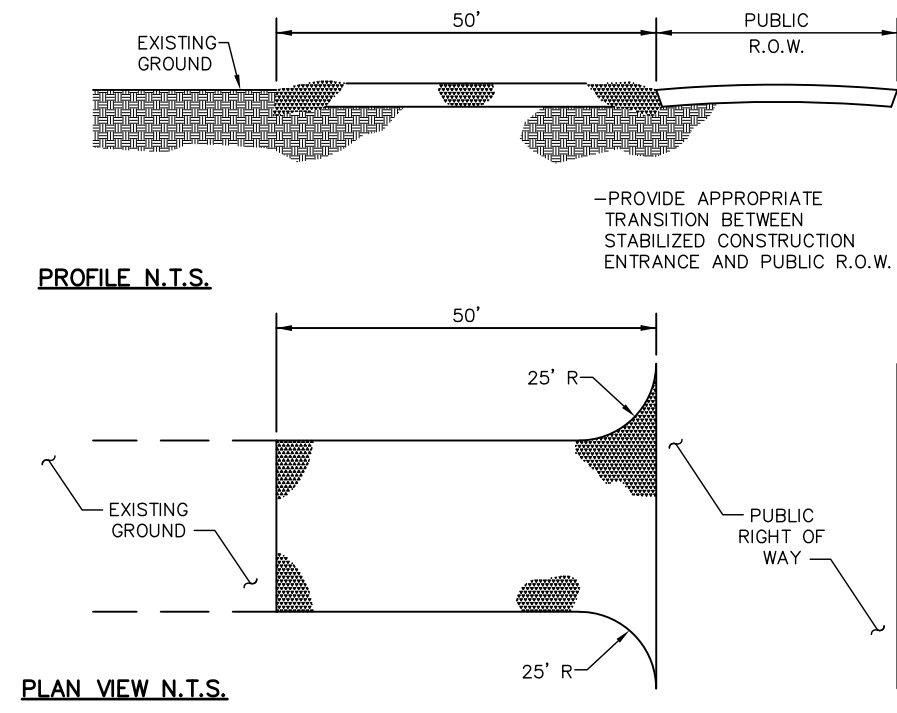
15 CROSS GATES ROAD (BL. 4003/LOT 1) = 20.5'
9 EAST LANE (BL. 4003/LOT 7) = 34.6'
15 EAST LANE (BL. 4003/LOT 6) = 37.6'

TOTAL = 92.7'

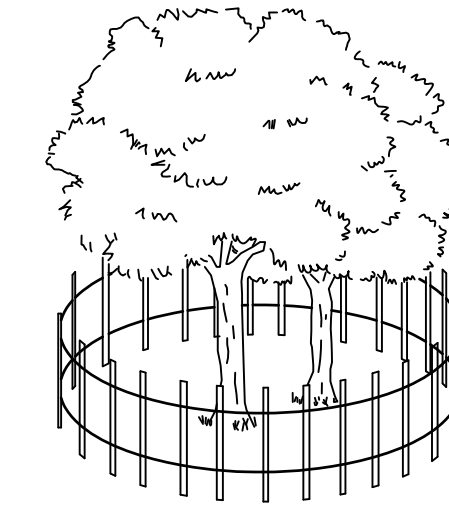
AVERAGE SETBACK = 97.2/3 = 30.9' => USE 31' MIN.



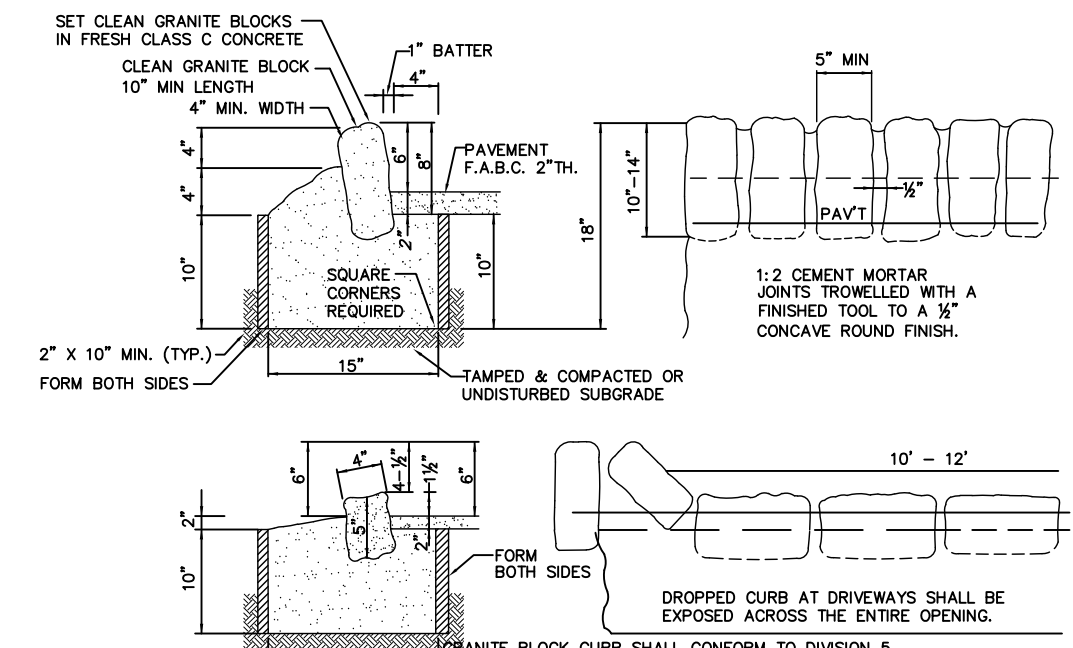
SILT FENCE DETAIL
SCALE N.T.S.



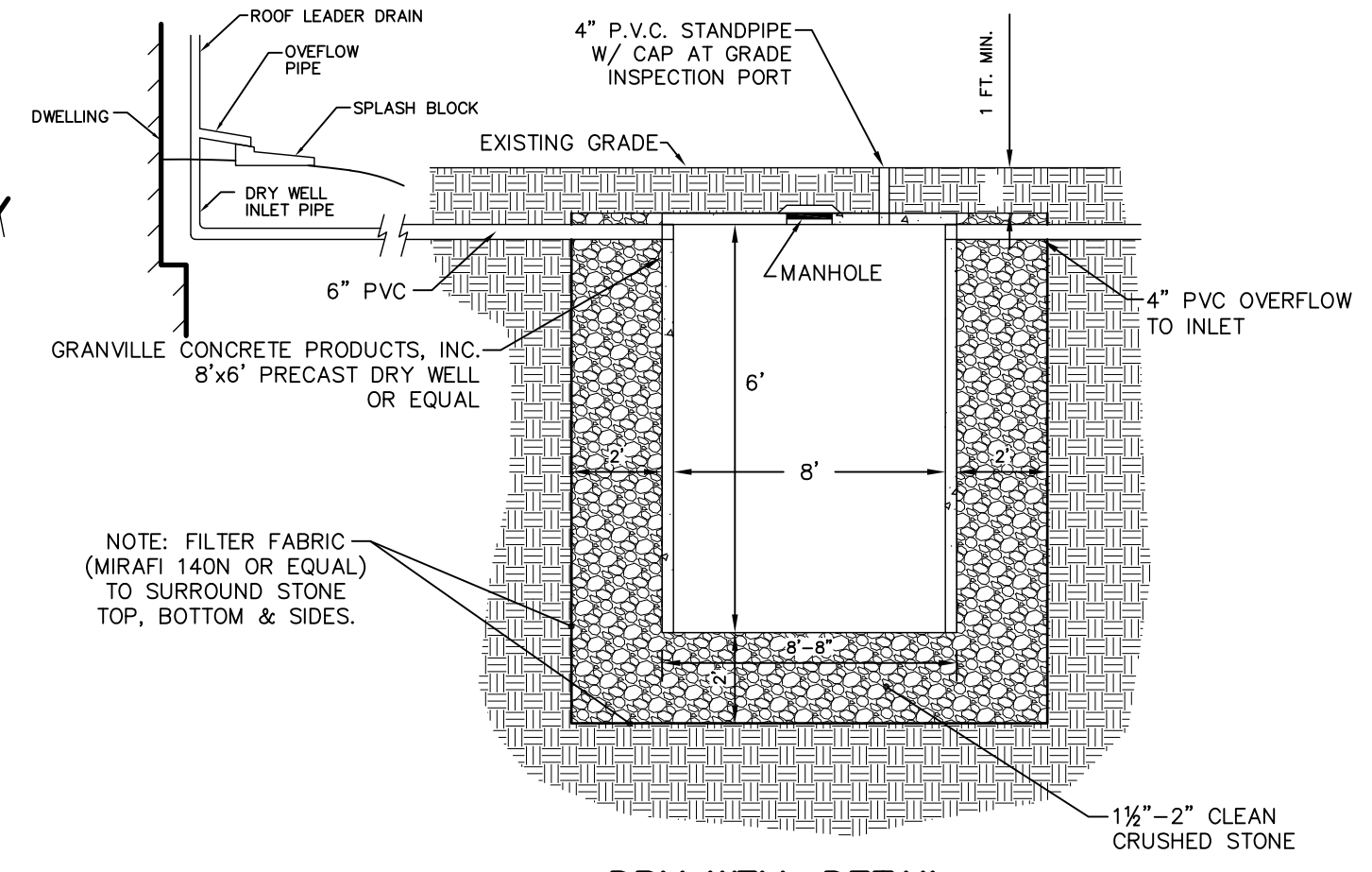
ANTI-TRACKING PAD
SCALE N.T.S.



TREE PROTECTION DETAIL
SCALE N.T.S.



DETAIL OF GRANITE BLOCK CURB
N.T.S.



DRY WELL DETAIL
SCALE N.T.S.

DRY WELL DESIGN

CAPTURED ROOF & DRIVEWAY AREA = 2,051 FT.² ±
REQUIRED STORAGE = (2,051 FT.²) (4/12) = 683 FT.³

STORAGE PROVIDED:

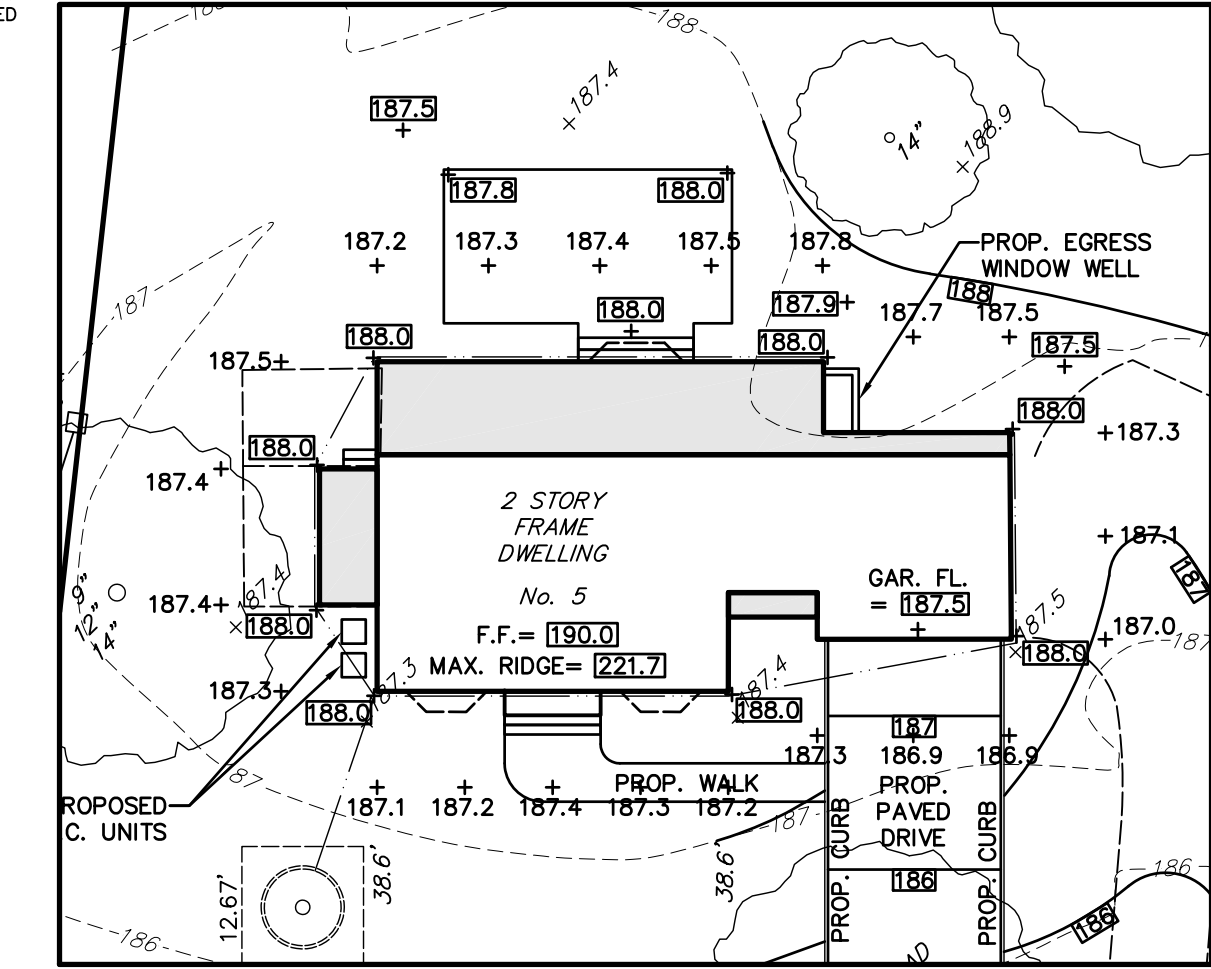
USING 1-8" DIA. x 4' HIGH TANK + STONE w/ 40% VOID RATIO
TANK - (3.14)(4')²(6) = 301 FT.³
STONE - (0.4) [(12.67)(12.67)(8) - 301] = 393 FT.³

TOTAL STORAGE PROVIDED = 694 FT.³ > 683 FT.³ -OK

- MORRIS COUNTY SOIL CONSERVATION DISTRICT SOIL EROSION AND SEDIMENT CONTROL NOTES**
1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY, AND WILL BE IN PLACE PRIOR TO ANY MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
 2. ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN THIRTY (30) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING, IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREA WILL BE MULCHED WITH STRAW OR HAY AND TACKED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS. SEE NOTE 21 BELOW.
 3. PERMANENT VEGETATION IS TO BE ESTABLISHED ON EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH IS TO BE USED FOR PROTECTION UNTIL VEGETATION IS ESTABLISHED. SEE NOTE 22 BELOW.
 4. AREAS (STEEP SLOPES, SANDY SOILS, WET CONDITIONS) SUBJECT TO EROSION IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL WILL RECEIVE A TEMPORARY SEEDING IN ACCORDANCE WITH NOTE 21 BELOW.
 5. TEMPORARY DIVERSION BERMS ARE TO BE INSTALLED ON ALL CLEARED ROADWAYS AND EASEMENT AREAS. SEE THE DIVERSION DETAIL.
 6. PERMANENT SEEDING AND STABILIZATION TO BE IN ACCORDANCE WITH THE "STANDARDS FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION COVER", SPECIFIED RATES AND LOCATIONS SHALL BE ON THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN.
 7. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SO THAT ALL STORM WATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
 8. ALL SEDIMENTATION STRUCTURES (SILT-FENCE, INLET FILTERS, AND SEDIMENT BASINS) WILL BE INSPECTED AND MAINTAINED DAILY.
 9. STOCKPILES SHALL NOT BE LOCATED WITHIN 50' OF A FLOODPLAIN, SLOPE, DRAINAGE FACILITY, OR ROADWAY.
 10. A STABILIZED CONSTRUCTION ACCESS WILL BE INSTALLED, WHENEVER AN EARTHEN ROAD INTERSECTS WITH A PAVED ROAD. SEE THE STABILIZED CONSTRUCTION ACCESS DETAIL AND CHART FOR DIMENSIONS.
 11. ALL NEW ROADWAYS WILL BE TREATED WITH SUITABLE SUBBASE UPON ESTABLISHMENT OF FINAL GRADE ELEVATIONS.
 12. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
 13. BEFORE DISCHARGE POINTS BECOME OPERATIONAL, ALL STORM DRAINAGE OUTLETS WILL BE STABILIZED AS REQUIRED.
 14. ALL DEWATERING OPERATIONS MUST BE DISCHARGED DIRECTLY INTO A SEDIMENT FILTER AREA. THE FILTER SHOULD BE COMPOSED OF A FABRIC OR APPROVED MATERIAL. SEE THE DEWATERING DETAIL.
 15. ALL SEDIMENT BASINS WILL BE CLEANED WHEN THE CAPACITY HAS BEEN REDUCED BY 50%. A CLEAN OUT ELEVATION WILL BE IDENTIFIED ON THE PLAN AND A MARKER IDENTIFIED ON THE SITE.
 16. DURING AND AFTER CONSTRUCTION, THE APPLICANT WILL BE RESPONSIBLE FOR THE MAINTENANCE AND UPKEEP OF THE DRAINAGE STRUCTURES, VEGETATION COVER, AND ANY OTHER MEASURES DEEMED APPROPRIATE BY THE DISTRICT. SAID RESPONSIBILITY WILL END WHEN COMPLETED WORK IS APPROVED BY THE MORRIS COUNTY SOIL CONSERVATION DISTRICT.
 17. ALL TREES OUTSIDE THE DISTURBANCE LIMIT INDICATED ON THE SUBJECT PLAN OR THOSE TREES WITHIN THE DISTURBANCE AREA WHICH ARE DESIGNATED TO REMAIN AFTER CONSTRUCTION ARE TO BE PROTECTED WITH TREE PROTECTION DEVICES. SEE THE TREE PROTECTION DETAIL.
 18. THE MORRIS COUNTY SOIL CONSERVATION DISTRICT MAY REQUEST ADDITIONAL MEASURES TO MINIMIZE ON SITE OR OFF SITE EROSION PROBLEMS DURING CONSTRUCTION.
 19. THE MORRIS COUNTY SOIL CONSERVATION DISTRICT MUST BE NOTIFIED, IN WRITING, AT LEAST 72 HOURS PRIOR TO ANY LAND DISTURBANCE, AND A PRE-CONSTRUCTION MEETING HELD.

ADDITIONAL SOIL EROSION NOTES:

1. BASED UPON REVIEW OF THE U.S. DEPARTMENT OF AGRICULTURE'S NATURAL RESOURCE CONSERVATION SERVICE WEB SOIL SURVEY, THE PROJECT SITE CONSISTS OF URBAN LAND-HALEDON COMPLEX (USHALB).
2. REVIEW OF THE FEMA FLOOD INSURANCE RATE MAPS FOR MADISON SHOWS THAT THE SITE IS LOCATED IN ZONE 'X' (AREAS OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN).
3. REVIEW OF THE NJ GEO-WEB, DEP'S INTERACTIVE GIS INTERFACE, SHOWS NO WETLANDS ON PROJECT SITE.



HEIGHT ANALYSIS

AVERAGE GRADE PLANE:
(186.9 + 186.9 + 187.3 + 187.2 + 187.3 + 187.4 + 187.2 + 187.1 + 187.3 + 187.4 + 187.4 + 187.5 + 187.5 + 187.3 + 187.3 + 187.1 + 187.0) / 22 = 187.3

PROPOSED BUILDING HEIGHT:
PROPOSED ROOF PEAK - AVG. GRADE PLANE = 221.7 - 187.3 = 34.4 FT.

NOTES:

1. THIS PLAN IS BASED UPON AN ACTUAL FIELD SURVEY PERFORMED ON JANUARY 29, 2018. IF THIS PLAN DOES NOT HAVE A RAISED SEAL, IT IS NOT AN OFFICIAL COPY AND THE SITE MAY HAVE CHANGED SINCE THE DATE OF THE FIELD SURVEY.
2. VERTICAL DATUM IS ASSUMED AND IS BASED UPON INLET GRATES AND MANHOLE RIMS AS SHOWN ON THIS PLAN. ELEVATION ARE AS SHOWN.
3. THIS SURVEY DOES NOT INCLUDE INVESTIGATION OF ANY ENVIRONMENTAL MATTERS INCLUDING WETLANDS DELINEATION OR PRESENCE/ABSENCE.
4. UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON SURFACE EVIDENCE, MARKOUTS BY THE UTILITY COMPANIES AND RECORDS AS LISTED ON THIS PLAN AS REFERENCES. ANDREW B. CLARKE, PLS, PE, MAKES NO GUARANTEES, EXPRESS OR IMPLIED, REGARDING THE PRESENCE, ABSENCE OR EXACT LOCATIONS OF ANY UNDERGROUND UTILITIES IN THE VICINITY OF THE SUBJECT SITE. WHETHER OR NOT SHOWN ON THIS PLAN, IT IS THE RESPONSIBILITY OF ANY CONTRACTOR INTENDING TO EXCAVATE TO CALL FOR A MARKOUT AND VERIFY THE EXACT LOCATION AND DEPTH OF ANY UNDERGROUND UTILITIES PRIOR TO EXCAVATION.

- SOIL EROSION AND SEDIMENT CONTROL NOTES (CONTINUED)**
20. TOPSOIL STOCKPILE PROTECTION:
 - a) APPLY GROUND LIMESTONE AT A RATE OF 90 LBS. PER 1000 SQ.FT..
 - b) APPLY FERTILIZER (10-20-10) AT A RATE OF 11 LBS. PER 1000 SQ.FT..
 - c) APPLY PERENNIAL RYEGRASS SEED AT 1 LB. PER 1000 SQ.FT. AND ANNUAL RYEGRASS AT 1 LB. PER 1000 SQ.FT.
 - d) MULCH STOCKPILE WITH STRAW OR HAY AT A RATE OF 90 LBS. PER 1000 SQ. FT.
 - e) APPLY A LIQUID MULCH BINDER OR TACK TO STRAW OR HAY MULCH.
 - f) PROPERLY ENTRENCH A SILT FENCE AT THE BOTTOM OF THE STOCKPILE.
 21. TEMPORARY STABILIZATION SPECIFICATIONS:
 - a) APPLY GROUND LIMESTONE AT A RATE OF 90 LBS. PER 1000 SQ.FT..
 - b) APPLY FERTILIZER (10-20-10) AT A RATE OF 11 LBS. PER 1000 SQ.FT..
 - c) APPLY PERENNIAL RYEGRASS SEED AT 1 LB. PER 1000 SQ.FT. AND ANNUAL RYEGRASS AT 1 LB. PER 1000 SQ.FT.
 - d) MULCH STOCKPILE WITH STRAW OR HAY AT A RATE OF 90 LBS. PER 1000 SQ. FT.
 - e) APPLY A LIQUID MULCH BINDER OR TACK TO STRAW OR HAY MULCH.
 22. PERMANENT STABILIZATION SPECIFICATIONS:
 - a) APPLY TOPSOIL TO A DEPTH OF 5 INCHES (UNSETTLED).
 - b) APPLY GROUND LIMESTONE AT A RATE OF 90 LBS. PER 1000 SQ.FT..
 - c) APPLY FERTILIZER (10-20-10) AT A RATE OF 11 LBS. PER 1000 SQ.FT..
 - d) APPLY PERENNIAL RYEGRASS SEED AT 2.7 LBS. PER 1000 SQ.FT. AND PERENNIAL RYEGRASS SEED AT 0.7 LBS. PER 1000 SQ.FT. AND PERENNIAL RYEGRASS SEED AT 0.25 LBS. PER 1000 SQ.FT.
 - e) MULCH STOCKPILE WITH STRAW OR HAY AT A RATE OF 90 LBS. PER 1000 SQ. FT.
 - f) APPLY A LIQUID MULCH BINDER OR TACK TO STRAW OR HAY MULCH.

DUST CONTROL NOTES

- THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:
- MULCHES**—SEE STANDARD FOR STABILIZATION WITH MULCHES ONLY (PG. 5-1).
- VEGETATIVE COVER**—SEE STANDARD FOR TEMPORARY VEGETATIVE COVER (PG. 7-1), PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION (PG. 4-1), AND PERMANENT STABILIZATION WITH SOD (PG. 6-1).
- SPRAY-ON ADHESIVES**—ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.
- TILLAGE**—TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WIDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
- SPRINKLING**—SITE IS SPRINKLED UNTIL THE SURFACE IS WET.
- BARRIERS**—SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, SALES OF HAY, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.
- CALCIUM CHLORIDE**—SHALL BE IN THE FORM OF LOOSE, DRY GRANULATES OF FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS, OR ACCUMULATION AROUND PLANTS.
- STONE**—COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

TABLE 16-1: DUST CONTROL MATERIALS

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ACRE
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1200
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300
POLYCRYLAMIDE (PAM)—SPRAY ON POLYCRYLAMIDE (PAM)—DRY SPRAY		APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD (PG. 26-1).	
ACIDULATED SOY BEAN SOAP STICK	NONE	COARSE SPRAY	1200

SEQUENCE OF CONSTRUCTION:

- a) INSTALL VEHICLE WHEEL CLEANING BLANKET
 - b) INSTALL SILT FENCE.
 - c) CLEAR SITE.
 - d) STRIP AND STOCKPILE SOIL.
 - e) CONSTRUCT SITE IMPROVEMENTS.
 - f) PROVIDE TEMPORARY STABILIZATION.
 - g) PROVIDE PERMANENT STABILIZATION.
 - h) REMOVE TEMPORARY SILT FENCE, INLET PROTECTION AND OTHER SOIL EROSION CONTROLS.
- TOTAL PROJECT TIMEFRAME = 10 TO 12 MONTHS

R-2 RESIDENTIAL ZONE - SINGLE-FAMILY

BULK REQUIREMENT DESCRIPTION	REQUIRED/ALLOWED	EXISTING	PROPOSED
MIN. LOT AREA	15,000 S.F.	16,554 S.F.	NO CHANGE
MIN. LOT WIDTH	100 FT.	124.78 FT.	NO CHANGE
MIN. LOT DEPTH	135 FT.	132.1 FT.	NO CHANGE
MIN. FRONT YARD	31 FT. (AVG.)	38.6 FT.	35.9 FT. (PORTICO)
MIN. REAR YARD	50 FT.	62.1 FT.	58.5 FT.
MIN. SIDE YARD	25.0 FT.	16.1 FT./25.3 FT.	25.2 FT./25.3 FT.
MAXIMUM COVERAGE			
IMPERVIOUS	25% (4,138 S.F.)	24.5% (4,048 S.F.)	21.5% (3,566 S.F.)
PRINCIPAL STRUCTURE	12.5% (2,069 S.F.)	10.7% (1,770 S.F.)	12.2% (2,026 S.F.)
MAX. HEIGHT	35 FT.	UNKNOWN	34.4 FT.

COVERAGE CALCULATIONS

	EXISTING	CHANGE	PROPOSED
HOUSE	1,770 S.F.	ADDITION	2,026 S.F.
PORCH(ES)	0 S.F.	NEW	25 S.F.
FRONT WALK/STEPS	478 S.F.	REMOVE & REPLACE	181 S.F.
REAR WALK/STEPS/PATIOS	637 S.F.	REMOVE & REPLACE	528 S.F.
PAVED DRIVEWAY	1,163 S.F.	REMOVE & REPLACE	806 S.F.
TOTAL COVERAGE	4,048 S.F.		3,530 S.F.

LOT GRADING PLAN

PREPARED FOR
GARCIA RESIDENCE
5 EAST LANE
TAX LOT 8 BLOCK 4003
BOROUGH OF MADISON
MORRIS COUNTY NEW JERSEY

ABC SURVEYS, LLC
PROFESSIONAL LAND SURVEYING AND ENGINEERING
466 SOUTHERN BOULEVARD
CHATHAM, NEW JERSEY 07928
VOICE 973-377-2174 FAX 973-377-5533

ANDREW B. CLARKE-PLS,PE
NJ PROFESSIONAL ENGINEER AND LAND SURVEYOR LICENSE NO. 0804105600
JOB No.: 18003
DES.: A.B.C.
SCALE: 1"=20'
DATE: 02/21/18

PROPOSED CONDITIONS

UTILITY NOTES:

EXISTING UTILITY SERVICE CONNECTIONS TO BE LOCATED AND VERIFIED IN FIELD. CONDITIONS PERMITTING, EXISTING SERVICE CONNECTIONS ARE TO BE UTILIZED.