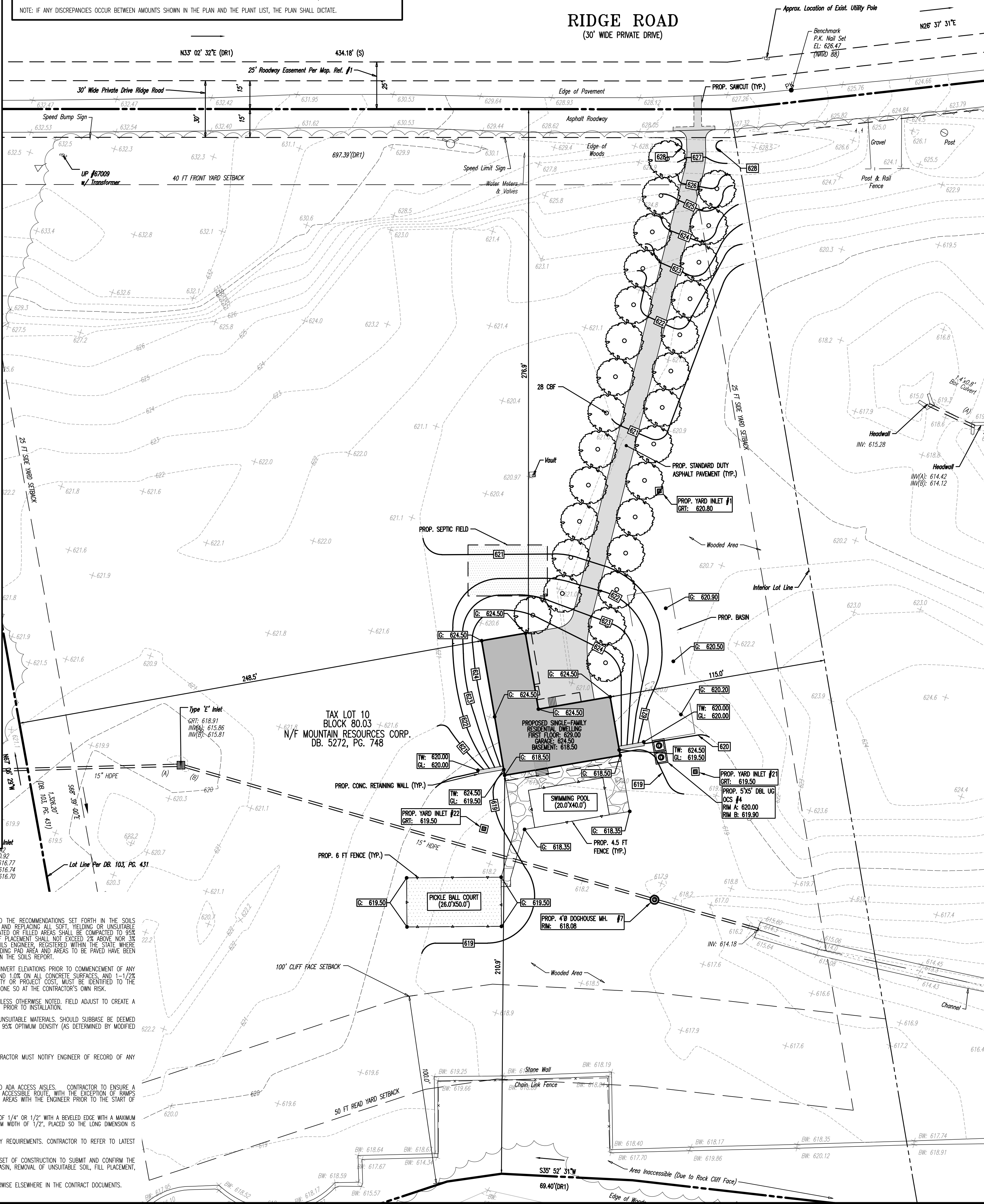


	PROPERTY LINE (PARCEL IN QUESTION)
	OFF-STREET PROPERTY LINES
	EXIST. CABLE LINE
	PROP. CABLE LINE
	EXIST. ELECTRIC LINE
	PROP. ELECTRIC LINE
	EXIST. FIBER OPTIC LINE
	PROP. FIBER OPTIC LINE
	EXIST. GAS LINE
	PROP. GAS LINE
	EXIST. OVERHEAD WIRES
	EXIST. TELEPHONE LINE
	PROP. TELEPHONE LINE
	EXIST. WATER LINE
	PROP. WATER LINE
	EXIST. FIRE SERVICE
	PROP. FIRE SERVICE
	EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
	PROP. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
	EXIST. SANITARY SEWER LINE
	PROP. SANITARY SEWER LINE
	EXIST. STORM DRAIN LINE
	PROP. STORM DRAIN LINE
	UNDERGROUND UTILITY QUALITY LEVEL
	EXIST. MINOR CONTOUR & ELEVATION
	EXIST. MAJOR CONTOUR & ELEVATION
	PROP. FINISH GRADE CONTOUR & ELEVATION
	PROP. DIRECTION OF DRAINAGE FLOW ARROW
	EXIST. SPOT ELEVATIONS
	EXIST. GUTTER ELEV.
	EXIST. TOP OF CURB ELEV.
	EXIST. FINISH FLOOR ELEV.
	EXIST. GARAGE FLOOR ELEV.
	PROP. GRADE SPOT ELEV.
	PROP. TOP OF CURB & FINISHED GRADE ELEV.
	PROP. FINISHED FLOOR ELEV.
	PROP. 1/4" WALL & FINISHED GRADE (LOW OF WALL (ACTUAL) BOTTOM OF WALL FOOTING TO BE ESTABLISHED BY WALL DESIGNER)
	PROP. 1/4" EXTENDED CURB, 1/4" FINISHED GRADE (HIGH SIDE OF EXTENDED CURB) & 1/4" FINISHED GRADE (LOW SIDE OF EXTENDED CURB)
	EXIST. GUY WIRE
	EXIST. LIGHT POLE
	EXIST. BUILDING LIGHT
	EXIST. SHORE BOX LIGHT
	EXIST. COBRA LIGHT POLE
	EXIST. TRAFFIC SIGNAL POLE
	EXIST. MANHOLE
	EXIST. "A" INLET
	EXIST. "B" INLET
	EXIST. "C" INLET
	EXIST. YARD INLET
	EXIST. FLARED END SECTION
	EXIST. HEADWALL
	EXIST. MONITORING WELL
	APPROX. TEST PIT LOCATION
	EXIST. FIRE HYDRANT
	EXIST. WATER VALVE
	EXIST. GAS VALVE
	EXIST. GAS METER
	EXIST. ELECTRIC METER
	EXIST. ELECTRIC BOX
	EXIST. CLEAN OUT
	EXIST. WELL
	EXIST. WATER SHUT OFF VALVE
	EXIST. TELEPHONE BOX
	EXIST. CABLE TV BOX
	EXIST. UTILITY POLE
	PROP. WATER VALVE
	PROP. GAS VALVE
	PROP. STORM CLEANOUT
	PROP. SANITARY CLEANOUT
	PROP. AREA LIGHT
	PROP. OUTLET CONTROL STRUCTURE
	PROP. DRAINAGE MANHOLE
	PROP. SANITARY SEWER MANHOLE
	PROP. "A" INLET
	PROP. "B" INLET
	PROP. "C" INLET
	PROP. YARD INLET
	PROP. FLARED END SECTION
	PROP. HEADWALL

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
SHADE TREE(S)					
CBF	28	CARPINUS BETULUS 'FASTIGIATA'	PYRAMIDAL EUROPEAN HORNBEAM	2 1/2-3" CAL.	B+B

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN IN THE PLAN AND THE PLANT LIST, THE PLAN SHALL DICTATE.

RIDGE ROAD
(30' WIDE PRIVATE DRIVE)



2.	ALTA/NSPS LAND TITLE SURVEY DYNAMIC SURVEY, LLC 1901 MAIN STREET LAKE COMO, NJ SURVEYOR PROJECT NO: 4266-99-0015
3.	APPLICANT: AARON FRIEDMAN 139 TENNYSON DRIVE SHORT HILLS, NJ 07078
4.	OWNER: MOUNTAIN RESOURCES CORP. P.O. BOX 1874 LIVINGSTON, NJ 07039
5.	PARCEL DATA: BLOCK 80.03 LOT 10 10 RIDGE ROAD TOWNSHIP OF WEST ORANGE ESSEX COUNTY, NEW JERSEY
6.	ZONE: RESIDENTIAL (R-1 ZONE)
7.	EXISTING USE: UNDEVELOPED
8.	PROPOSED USE: SINGLE-FAMILY RESIDENTIAL (PERMITTED USE) (\$25-7.1, 25 ATTACHMENT 2)
9.	SCHEDULE OF ZONING REQUIREMENTS (\$25-7.1, 25 ATTACHMENT 3)

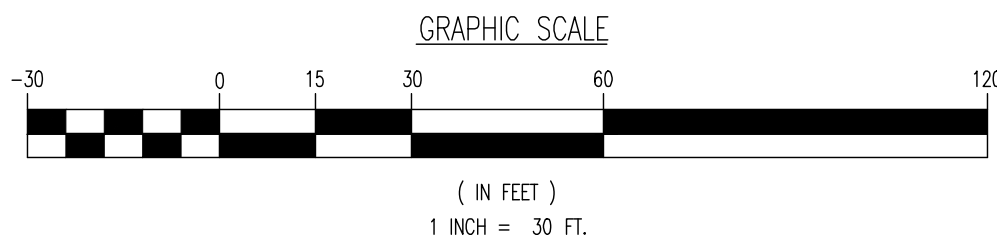
ZONE REQUIREMENT	ZONE R-1	EXISTING	PROPOSED
MINIMUM LOT AREA	80,000 SF (1.84 AC)	251,368 SF (5.77 AC)	251,368 SF (5.77 AC)
MINIMUM LOT WIDTH [1]	150 FT	433.8 FT	433.8 FT
MINIMUM LOT FRONTAGE [2]	112.50 FT	424.1 FT	434.1 FT
MINIMUM FRONT YARD	40 FT	N/A	276.9 FT
MINIMUM SIDE YARD	25 FT	N/A	115.0 FT
MINIMUM SIDE YARD (COMBINED)	50 FT	N/A	363.5 FT
MINIMUM REAR YARD	50 FT	N/A	210.9 FT
MAXIMUM BUILDING COVERAGE	20%	N/A	1.2% (2,900 SF)
MAXIMUM LOT COVERAGE	30%	2.6% (6,600 SF)	6.7% (16,862 SF)
MAXIMUM BUILDING HEIGHT	35 FT (2.5 STORIES)	N/A	29.6 FT (2.5 STORIES)

(I) LOT WITH SHALL MEAN THE SHORTEST DISTANCE BETWEEN SIDE LINES MEASURED AT A POINT ALONG THE REQUIRED FRONT SET-BACK LINE OF THE LOT. ALL LOTS SHALL BE REQUIRED TO HAVE A MINIMUM WIDTH AT ALL POINTS IN THE LOT OF
 (2) 40 FEET OR SEVENTY-FIVE PERCENT (75%) OF THE REQUIRED LOT WIDTH, WHICHEVER IS GREATER. (8.25-4)
 (F) LOT FRONTAGE SHALL MEAN THE DISTANCE BETWEEN THE SIDE LOT LINES AT THE STREET LINE OF THE LOT. EVERY LOT MUST FRONT ON A DEDICATED AND ACCEPTED STREET AND THE MINIMUM STREET FRONTAGE FOR ANY LOT MUST BE
 (F) 40 FEET OR SEVENTY-FIVE PERCENT (75%) OF THE REQUIRED LOT WIDTH, WHICHEVER IS GREATER. (8.25-4)
 THE SPACE IN A REQUIRED FRONT, SIDE, FRONT YARD OR REAR YARD SHALL BE OPEN AND UNOBSTRUCTED EXCEPT FOR: (8.25-8.2)
 A. AN UNFINISHED TERRACE PROJECTING NOT MORE THAN EIGHT (8) FEET INTO THE REQUIRED REAR YARD.
 B. STEPS PROJECTING MORE THAN SIX (6) FEET LEADING TO A BASEMENT OR FIRST FLOOR.
 C. DOORWAYS, WINDOWS, SILLS, WALL ORNAMENTS OR LEADS PROJECTING NOT MORE THAN TWO (2) FEET. A VARIANCE SHALL BE REQUIRED FOR ANY FEATURE THAT PROJECTS MORE THAN TWO (2) FEET INTO A REQUIRED YARD.
 D. CHIMNEYS, NOT OVER FOUR (4) FEET HIGH, PROJECTING FROM BUILDINGS EXCEPT AS PLACED AS NOT TO OBSTRUCT LIGHT OR VENTILATION.
 EVERY DETACHED SHED SHALL PROVIDE A MINIMUM RESIDENTIAL LIVING AREA PER UNIT ON FINISHED FLOORS. THE MINIMUM STIPULATED HEREIN SHALL BE DEEMED TO BE EXCLUSIVE OF PORCHES, BREEZEWAYS, GARAGE AREA, BASEMENT, CELLAR AREAS AND
 ANY OTHER SPACE USED IN CONNECTION WITH LIVING ACCOMMODATIONS ON THE LOT. (8.25-8.3)
 THE OUTSIDE GROUND LEVEL SHALL NOT BE CONSIDERED AS PART OF THE RESIDENTIAL LIVING AREA. (8.25-8.3A)
 A. ONE-FAMILY DWELLING, MORE THAN TWO STORES IN HEIGHT: 3,000 SF (COMPLES)

PARKING REQUIREMENTS
 A. ONE-FAMILY (8.25-12.2.1.1)
 1. 4 BEDROOM + 2.5 PER UNIT (COMPLES)
 B. GARAGE AND DRIVEWAY COMBINATIONS SHALL BE COUNTED AS FOLLOWS: (8.25-12.2.2)
 1. EACH GARAGE CAR SPACE SHALL BE COUNTED AS ONE (1) OFF-STREET PARKING SPACE REGARDLESS OF THE DIMENSIONS OF THE DRIVEWAY.
 2. A TWO-CAR GARAGE AND DRIVEWAY COMBINATION SHALL COUNT AS TWO (2) OFF-STREET PARKING SPACES, PROVIDING THE DRIVEWAY MEASURES A MINIMUM OF EIGHTEEN (18) FEET IN LENGTH BETWEEN THE FACE OF THE GARAGE DOOR AND THE
 RIGHT-OF-WAY.
 3. A TWO-CAR GARAGE AND DRIVEWAY COMBINATION SHALL COUNT AS THREE AND ONE-HALF (3.5) OFF-STREET PARKING SPACES, PROVIDING A MINIMUM PARKING AREA WIDTH OF TWENTY (20) FEET IS PROVIDED FOR A MINIMUM LENGTH OF EIGHTEEN
 FEET AS MEASURED FOR A ONE-CAR GARAGE AND DRIVEWAY COMBINATION.
 C. PRIVATE GARAGES SHALL BE UTILIZED AS AN ACCESSORY TO THE PRINCIPAL USE. (8.25-12.2.1.1)
 D. NOT MORE THAN THIRTY PERCENT (30%) OF THE AREA OF A MINIMUM REQUIRED FRONT YARD, REAR YARD OR SIDE YARD SHALL BE USED AS A PARKING AREA. (8.25-12.2.2) (COMPLES)

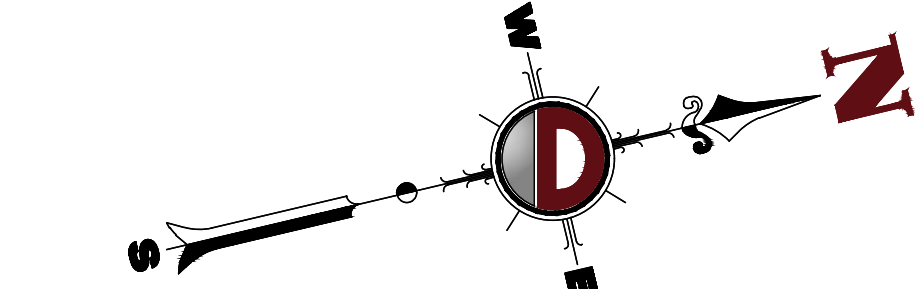
WALL AND FENCE REQUIREMENTS
 A. SOLID WALLS SHALL BE NOT HIGHER THAN SIX (6) FEET PERMITTED IN THE REAR YARD AND ON THE SIDE PROPERTY LINE (8.25-14.8) (COMPLES)
 B. AT EACH ADJACENT HOME, SUCH SOLID FENCE MAY BE LOCATED IN THE SIDE PROPERTY UP TO THE FRONT OF THE HOME (8.25-14.8) (COMPLES)
 C. ALL PRIVATE SWIMMING POOLS NOW EXISTING OR HEREAFTER CONSTRUCTED OR INSTALLED SHALL BE ENCLOSED BY A PERMANENT FENCE OF DURABLE MATERIAL WHICH SHALL BE NO LESS THAN 40 FEET IN HEIGHT, AND ANY OPENING OR MESH IN A
 FENCE SHALL BE NOT GREATER THAN FOUR (4) INCHES IN SIZE. THE FENCE SHALL BE SO CONSTRUCTED AS TO PREVENT ANY PERSON FROM GAINING ACCESS TO THE POOL, BENEATH OR THROUGH THE SAME HEIGHT AS THE FENCE, CONSTRUCTED
 OF THE SAME MATERIAL, WITH FACILITIES FOR LOCKING THE GATE WHEN THE POOL IS NOT IN USE OR IS UNGUARDED OR UNATTENDED. (\$16-51.1) (COMPLES)

PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED
 AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.
 ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
 THE SOILS REPORT AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR
 SHALL NOTIFY THE ENGINEER CONSTRUCTION MANAGER OF ANY DISCREPANCY BETWEEN SOILS REPORTS & PLANS.
 SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL UNDERGROUND TANKS, PIPES, VALVES, ETC.
 THE PROPERTY SURVEY SHALL BE CONSIDERED A PART OF THESE PLANS.
 ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN
 CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
 SOLID WASTE TO BE DISPOSED OF BY CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
 ALL EXCAVATED UNSUITABLE MATERIAL MUST BE TRANSPORTED TO AN APPROVED DISPOSAL LOCATION.
 CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION AND SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS, AS WELL AS ALL ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS
 FIELD CONDITIONS DICTATE.
 ALL CONTRACTORS MUST CARRY STATUTORY WORKERS COMPENSATION, EMPLOYERS LIABILITY INSURANCE AND APPROPRIATE LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (COL). ALL CONTRACTORS MUST HAVE THEIR COL POLICIES ENDORSED TO NAME
 THE CITY AND COUNTY OF DENVER AND TO PROVIDE CONTRACTOR LIABILITY COVERAGE SUFFICIENT TO INSURE THE CITY'S FINANCIAL AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTOR. ALL
 CONTRACTORS MUST FURNISH DYNAMIC ENGINEERING CONSULTANTS, P.C. WITH CERTIFICATES OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF
 CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS SUBCONSULTANTS FROM AND AGAINST ANY DAMAGES, LIABILITIES OR
 LOSSES INCURRED BY OR FOR THE CITY OF DENVER OR IN ANY WAY CONNECTED WITH THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS.
 NEITHER THE PROFESSIONAL ACTIVITIES OF DYNAMIC ENGINEERING CONSULTANTS, P.C., NOR THE PRESENCE OF DYNAMIC ENGINEERING CONSULTANTS, P.C. OR ITS EMPLOYEES AND SUBCONSULTANTS AT A CONSTRUCTION/PROJECT SITE, SHALL RELIEVE
 GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING SUPERINTENDING AND COORDINATING THE
 WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. DYNAMIC ENGINEERING CONSULTANTS, P.C. AND ITS PERSONNEL, HAVE NO AUTHORITY TO EXERCISE ANY CONSTRUCTION
 OR SAFETY FUNCTIONS OR TO SUPERVISE OR CONTROL THE WORK OF THE CONTRACTOR. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ADHESION TO ALL CITY, STATE AND FEDERAL REQUIREMENTS. DYNAMIC ENGINEERING CONSULTANTS,
 P.C. SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND SHALL BE MADE ADDITIONAL INSURED UNDER THE GENERAL CONTRACTOR'S POLICIES OF GENERAL LIABILITY INSURANCE.
 DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL REVIEW AND APPROVE OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES AND OTHER DATA WHICH THE CONTRACTOR IS REQUIRED TO
 SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN CONCEPT AND THE INFORMATION SHOWN IN THE CONSTRUCTION MEANS OR METHODS. COORDINATION OF THE WORK WITH OTHER TRADES OR
 CONTRACTORS SHALL BE THE CONTRACTOR'S RESPONSIBILITY. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S SCHEDULING OR SEQUENCE OF WORK WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE
 REVIEW OF A SPECIFIC ITEM WHICH DOES NOT INDICATE THAT DYNAMIC ENGINEERING CONSULTANTS, P.C. HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. DYNAMIC ENGINEERING CONSULTANTS, P.C. SHALL NOT BE RESPONSIBLE FOR
 REVIEWING OR APPROVING THE CONTRACTOR'S SUBMITTALS FOR THE CITY OF DENVER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CITY OF DENVER'S REVIEW OF THE CONTRACTOR'S SUBMITTALS FOR THE CITY OF DENVER. DYNAMIC ENGINEERING CONSULTANTS,
 P.C. SHALL NOT BE RESPONSIBLE FOR THE CITY OF DENVER'S REVIEW OF THE CONTRACTOR'S SUBMITTALS FOR THE CITY OF DENVER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CITY OF DENVER'S REVIEW OF THE CONTRACTOR'S SUBMITTALS FOR THE CITY OF DENVER.
 IN AN EFFORT TO RESOLVE ANY CONFLICTS THAT ARISE DURING THE DESIGN AND CONSTRUCTION OF THE PROJECT OR FOLLOWING THE COMPLETION OF THE PROJECT, DYNAMIC ENGINEERING CONSULTANTS, P.C. AND THE CONTRACTOR MUST AGREE THAT ALL
 DISPUTES BETWEEN THEM ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE PROJECT SHALL BE SUBMITTED TO NONBINDING MEDIATION UNLESS THE PARTIES MUTUALLY AGREE OTHERWISE.
 THE CONTRACTOR MUST INCLUDE A MEDIATION PROVISION IN ALL AGREEMENTS WITH INDEPENDENT SUBCONTRACTORS AND CONSULTANTS RETAINED FOR THE PROJECT AND TO REQUIRE ALL INDEPENDENT CONTRACTORS AND CONSULTANTS ALSO TO INCLUDE A
 MEDIATION PROVISION IN ALL AGREEMENTS WITH THEIR SUBCONTRACTORS, SUBCONSULTANTS, SUPPLIERS AND FABRICATORS, THEREBY PROVIDING FOR MEDIATION AS THE PRIMARY METHOD FOR DISPUTE RESOLUTION BETWEEN THE PARTIES TO ALL
 THOSE AGREEMENTS.
 IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED THEREIN, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, IT SHALL BE
 RESPONSIBLE FOR THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE, ALL FINES OR PENALTIES ASSESSED, WITH RESPECT HERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM AND IT SHALL INDEMNIFY AND HOLD THE
 CITY OF DENVER HARMLESS FROM AND AGAINST ANY DAMAGES, LIABILITIES OR LOSSES INCURRED BY OR FOR THE CITY OF DENVER OR IN ANY WAY CONNECTED WITH THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTOR.
 THE BUILDING SETBACK DIMENSIONS ILLUSTRATED AND LISTED ON THE SITE PLAN DRAWINGS ARE MEASURED FROM THE OUTSIDE SURFACE OF BUILDING WALLS. THESE SETBACK DIMENSIONS DO NOT ACCOUNT FOR ROOF OVERHANGS, ORNAMENTAL ELEMENTS
 OR ANY OTHER EXTERIOR EXTENSIONS UNLESS SPECIFICALLY NOTED.
 CONTRACTOR ACKNOWLEDGES HE HAS READ AND UNDERSTOOD THE DESIGN PHASE SOIL PERMEABILITY AND GROUNDWATER TEST RESULTS IN THE STORMWATER MANAGEMENT REPORT AND THAT THE CONTRACTORS RESPONSIBILITIES INCLUDE NECESSARY
 PROVISIONS TO ACHIEVE THE DESIGN PERMEABILITY IN THE FIELD.
 CONTRACTOR TO BE ADVISED THAT THE ENGINEER WAS NOT PROVIDED WITH FINAL FLOOR PLAN DRAWINGS FOR THE BUILDING AT THE TIME OF SITE PLAN DESIGN. AS A RESULT, ENTRANCE DOOR LOCATIONS AS DEPICTED HEREON MAY NOT BE FINAL AND
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY SUCH DISCREPANCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY SUCH DISCREPANCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY SUCH DISCREPANCIES.
 MUST BE LOCATED AS THE NEAREST SPACES TO THE ENTRANCE. CONTRACTOR TO NOTIFY OWNER AND ENGINEER IMMEDIATELY AT ANY DISCREPANCY PRIOR TO CONSTRUCTION.



1. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS TO BE REPLACED WITH SUITABLE MATERIALS AS SPECIFIED IN THE SOILS REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER A.S.T.M. TEST # 1-5757. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL NOT EXCEED 28 ABOVE NOR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTING PROGRAM PREPARED BY A QUALIFIED SOILS ENGINEER, REGISTERED WITH THE STATE OF CALIFORNIA, TO THE OWNER FOR REVIEW AND APPROVAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND SHALL BE PAID FOR THESE. CONTRACTOR IS RESPONSIBLE FOR THESE PLANS AND SPECS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT.
2. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL EXISTING AND PROPOSED UTILITY LOCATIONS. CONTRACTOR'S SURVEYING SHALL BE OF THE HIGHEST QUALITY TO PREVENT PONDING, ANY MISPLACEMENTS THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COSTS. MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITH DISCREPANCIES IS DONE SO AT THE CONTRACTOR'S OWN RISK.
3. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MIN. OF 0.25% GRADE ALONG CURB. ENGINEER TO APPROVE FINAL CURBING CURV. SHEETS PRIOR TO INSTALLATION.
4. SUBGRADE MATERIAL FOR SIDEWALKS, CURBS, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUBGRADE BE DETERMINED UNSUITABLE, SUBGRADE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL. COMPACTED TO 95% OPTIMUM DENSITY (AS DETERMINED BY MODIFIED PROCTOR METHOD).
5. REFER TO SITE PLAN FOR ADDITIONAL NOTES.
6. IN CASE OF DISCREPANCIES BETWEEN NOTES, THE SITE PLAN WILL SUPERCEDE IN ALL CASES. CONTRACTOR MUST NOTIFY ENGINEER OF RECORD OF ANY CONFLICT IMMEDIATELY.
7. MAXIMUM CROSS SLOPE OF 2% ON ALL SIDEWALKS.
8. CONTRACTOR TO ENSURE A MAXIMUM OF 2% SLOPE IN ALL DIRECTIONS IN AREA PORTIONS OF ON-SITE ACCESSIBLE ROUTES. CONTRACTOR TO ENSURE A MINIMUM OF 1% RUNNING SLOPE AND ACCESSIBLE SLOPE IN ALL DIRECTIONS IN OTHER PORTIONS OF ON-SITE ACCESSIBLE ROUTES. WITH THE EXCEPTION OF PARKING LOTS AND CURB PARKS, CONTRACTOR SHALL CLARIFY ANY QUESTIONS CONCERNING CONSTRUCTION IN ADA AREAS WITH THE ENGINEER PRIOR TO THE START OF CONSTRUCTION.
9. CONTRACTOR TO ENSURE ALL CHANGES IN LEVEL ALONG ACCESSIBLE ROUTES SHALL HAVE A MAXIMUM HEIGHT OF 1/4" OR 1/2" WITH A BEVELED EDGE WITH A MAXIMUM SLOPE OF 1:1. CONTRACTOR TO ENSURE ALL GRASS ALONG ALL ACCESSIBLE ROUTES HAVE A MAXIMUM WIDTH OF 1/2", PRIOR TO THE LONG DIMENSION IS PERPENDICULAR TO THE PATH OF TRAVEL.
10. CONTRACTOR TO REFER TO LATEST ADA GUIDELINES AND BUILDING CODE FOR ON-SITE ACCESSIBILITY REQUIREMENTS. CONTRACTOR TO REFER TO LATEST PROGRAM GUIDELINES FOR ACCESSIBILITY REQUIREMENTS WITHIN THE PUBLIC RIGHT-OF-WAY.
11. CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE OWNER'S GEOTECHNICAL ENGINEER PRIOR TO ONSET OF CONSTRUCTION TO SUBMIT AND CONFIRM THE CONSTRUCTION OF ALL FOUNDATION MATERIALS AND TO SCHEDULE INSPECTIONS FOR BOTTOM OF BASIN, REMOVAL OF UNSUITABLE SOIL, FILL PLACEMENT, AND FINAL BASIN PERMEABILITY TESTING.
12. THE CONTRACTOR IS RESPONSIBLE FOR AS-BUILT PLANS AND GRADE CONTROL UNLESS DIFFERENCES ELSEWHERE IN THE CONTRACT DOCUMENTS.

THIS PLAN SET IS FOR PERMITTING PURPOSES ONLY AND MAY NOT BE USED FOR CONSTRUCTION			
		DYNAMIC ENGINEERING	
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1904 Main Street Lake Como, NJ 07719 T: 732.374.0188 F: 732.374.3521 www.dynamic-engineer.com		Office conveniently located in: Lake Como, New Jersey T: 732.974.0188 • Chester, New Jersey T: 908.879.9229 • Newark, New Jersey T: 973.755.2000 • Torrance, New Jersey T: 732.678.0000 Allen Twp. NJ 732.938.0100 • Audin, Tenn 731.246.2644 • Houston, Texas T: 281.799.6402 • Denver, Bldg. 161 303.8507 Newtown, Pennsylvania T: 267.485.0276 • Philadelphia, Pennsylvania T: 215.233.4888 • Bethlehem, Pennsylvania T: 610.958.4400	
TITLE:			
PLOT & GRADING PLAN			
PROJECT: AARON FRIEDMAN <i>PROPOSED SINGLE-FAMILY RESIDENTIAL DWELLING</i> BLOCK 80.03, LOT 10 10 RIDGE ROAD TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NEW JERSEY		JOB No: 5142-24-00053 DRAWN BY: RPK CHECKED BY: DG DESIGNED BY: MJB CHECKED BY: -	
DATE: 03/05/24		SCALE: (H) 1"=30' (V) "	
SHEET No:		1	
MATTHEW J. BERSCH  PROFESSIONAL ENGINEER NEW JERSEY LICENSE NO. 54522		ROBERT P. FREUD  PROFESSIONAL ENGINEER NEW JERSEY LICENSE NO. 41938	
PROTECT YOURSELF ALL STATES REQUIRE NOTIFICATION OF LOCATES, LOCATING, OR ANY OTHER PREPARE TO LOCATE THE EXISTING SERVICE UTILITIES IN ANY STATE 811 Call before you dig FOR STATE SPECIFIC DEDICATED PHONE NUMBERS VISIT: WWW.CALLBEFOREUDIG.COM			
OF 6		Rev. # 1	



UTILITY NOTES

1. LOCATION OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS SHALL BE CONFIRMED INDEPENDENTLY BY THE CONTRACTOR IN FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO THE ENGINEER. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY UTILITY "ONE-CALL" NUMBER 72 HOURS PRIOR TO ANY EXCAVATION ON THIS SITE. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER & SEWER DEPARTMENTS TO MARK-OUT THEIR UTILITIES.
3. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME. SERVICE SIZES TO BE DETERMINED BY ARCHITECT.
4. WATER SERVICE MATERIALS SHALL BE SPECIFIED BY THE LOCAL UTILITY COMPANY. CONTRACTORS PRICE FOR WATER SERVICE SHALL INCLUDE ALL FEES AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE A COMPLETE WORKING SERVICE.
5. ALL WATER MAIN SHALL BE CEMENT-LINED, CLASS 52 DUCTILE IRON PIPE, UNLESS OTHERWISE DESIGNATED.
6. THE MINIMUM DIAMETER FOR DOMESTIC WATER SERVICES SHALL BE 1 INCH.
7. ALL SANITARY SEWER MAINS SHALL BE SEPARATED FROM WATER MAINS BY A DISTANCE OF AT LEAST 10 FEET HORIZONTALLY. IF SUCH SEPARATION IS NOT POSSIBLE THE PIPES SHALL BE IN SEPARATE TRENCHES WITH THE SEWER MAIN AT LEAST 18 INCHES BELOW THE WATER MAIN OR SUCH OTHER SEPARATION AS APPROVED BY THE APPROVING AUTHORITY. WHERE APPROPRIATE CROSSING SEPARATION FROM A WATER MAIN IS NOT POSSIBLE, THE SEWER SHALL BE ENCASED IN CONCRETE OR CONSTRUCTED OF DUCTILE IRON PIPE USING MECHANICAL OR SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER MAIN AS POSSIBLE. WHERE A WATER MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER SHALL BE PROVIDED. THE APPROVING AUTHORITY MAY REQUIRE ADDITIONAL STRUCTURAL SUPPORT FOR SEWER CROSSING OVER SEWER LINES.
8. ALL SANITARY SEWER MAINS SHALL BE SDR-35 PVC PIPE MATERIAL UNLESS OTHERWISE DESIGNATED. SEWER PIPES INSTALLED WITH LESS THAN 3 FEET OF COVER, GREATER THAN 20 FEET OF COVER OR WITHIN 18 INCHES OF A WATER MAIN SHALL BE CONSTRUCTED OF DUCTILE IRON PIPE. ALL DUCTILE IRON SEWER PIPE SHALL BE CEMENT-LINED, CLASS 52 PIPE, FURNISHED WITH SLENDER COAT, OR APPROVED EQUAL.
9. WHERE SANITARY SEWER LATERALS ARE GREATER THAN 10' DEEP AT CONNECTION TO THE SEWER MAIN, CONCRETE DEEP LATERAL CONNECTIONS ARE TO BE UTILIZED.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILIZATION OF THE EXISTING SEWER MAIN, STRUCTURES AND APPURTENANCES DURING CONNECTION.
11. LOCATION & LAYOUT OF GAS, ELECTRIC & TELECOMMUNICATION UTILITY LINES AND SERVICES SHOWN ON THESE PLANS ARE SCHEMATIC IN NATURE. ACTUAL LOCATION & LAYOUT OF THESE UTILITIES & SERVICES ARE TO BE PER THE APPROPRIATE UTILITY PROVIDER.
12. ROOF LEADER COLLECTION PIPING ARE CONCEPTUAL IN NATURE AND ARE NOT FOR CONSTRUCTION. ACTUAL ROOF LEADER COLLECTION PIPING IS TO BE COORDINATED W/ ARCHITECTURAL PLANS FOR EACH INDIVIDUAL BUILDING. ALL ROOF LEADER COLLECTION PIPING SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE DESIGNATED.
13. ALL SEWER AND WATER FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REGULATORY AUTHORITY'S RULES AND REGULATIONS.
14. ALL PROPOSED UTILITIES TO BE INSTALLED UNDERGROUND UNLESS OTHERWISE NOTED.
15. MANUFACTURED REINFORCED CONCRETE STORM PIPE TO CONFORM TO ASTM C-76, CLASS III, UNLESS OTHERWISE DESIGNATED. MANUFACTURED REINFORCED CONCRETE ELLIPTICAL STORM PIPE TO CONFORM TO ASTM C-507, CLASS HE-III, UNLESS OTHERWISE DESIGNATED. REINFORCED CONCRETE STORMWATER PIPE TO BE INSTALLED IN ACCORDANCE WITH AMERICAN CONCRETE PIPE ASSOCIATION INSTALLATION GUIDELINES AND MORTAR OR PREFORMED FLEXIBLE JOINT SEALANTS IN ACCORDANCE WITH ASTM C 990 TO BE UTILIZED TO PROVIDE A SILT-TIGHT JOINT. WHERE SPECIFICALLY INDICATED, REINFORCED CONCRETE STORM PIPE JOINTS SHALL BE WATERTIGHT AND CONFORM TO ASTM C-443.
16. HDPE DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNUAL EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2306. SOLID PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM D3212. PERFORATED PIPE SHALL HAVE GASKETED SILT-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM F2306 AND ASTM F477. HDPE PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HDPE PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURE RECOMMENDATIONS.
17. HP DRAINAGE PIPE SHALL HAVE A SMOOTH WALL INTERIOR WITH ANNUAL EXTERIOR CORRUGATIONS AND CONFORM TO ASTM F2736 (12"-30" PIPE) AND ASTM F2881 (36"-60" PIPE). PIPE SHALL HAVE GASKETED WATER-TIGHT JOINTS MEETING THE REQUIREMENTS OF ASTM D3212 AND ASTM F477. FIELD WATERTIGHTNESS PERFORMANCE VERIFICATION MAY BE ACCOMPLISHED IN ACCORDANCE WITH ASTM F2487. HP PIPE SHALL BE FROM A MANUFACTURER WHO IS AN EASTERN STATES CONSORTIUM (ESC) QUALIFIED MANUFACTURER OF HP STORM PIPE AND INSTALLED IN ACCORDANCE WITH PIPE MANUFACTURE RECOMMENDATIONS.
18. PIPE LENGTHS ON THIS PLAN HAVE BEEN MEASURED AS THE DISTANCE BETWEEN THE CENTER POINT OF THE 2 CONNECTED STRUCTURES. ACTUAL PHYSICAL PIPE LENGTH FOR INSTALLATION IS EXPECTED TO BE LESS AND SHOULD BE ACCOUNTED FOR BY THE CONTRACTOR ACCORDINGLY.

DRAINAGE NOTES

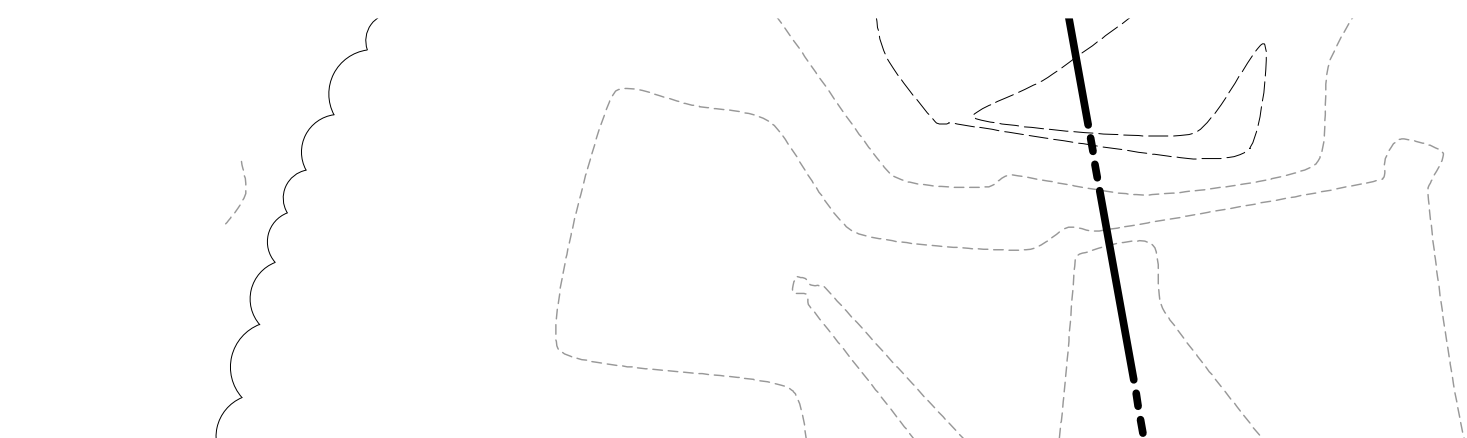
1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY UTILITY "ONE-CALL" NUMBER 72 HOURS PRIOR TO ANY EXCAVATION ON THIS SITE. CONTRACTOR SHALL ALSO NOTIFY LOCAL WATER & SEWER DEPARTMENTS TO MARK-OUT THEIR UTILITIES.
2. ROOF LEADER COLLECTION PIPING ARE CONCEPTUAL IN NATURE AND ARE NOT FOR CONSTRUCTION. ACTUAL ROOF LEADER COLLECTION PIPING IS TO BE COORDINATED W/ ARCHITECTURAL PLANS FOR EACH INDIVIDUAL BUILDING. ALL ROOF LEADER COLLECTION PIPING SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE DESIGNATED.
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6. PIPE LENGTHS ON THIS PLAN HAVE BEEN MEASURED AS THE DISTANCE BETWEEN THE CENTER POINT OF THE 2 CONNECTED STRUCTURES. ACTUAL PHYSICAL PIPE LENGTH FOR INSTALLATION IS EXPECTED TO BE LESS AND SHOULD BE ACCOUNTED FOR BY THE CONTRACTOR ACCORDINGLY.

EXISTING UTILITY NOTES

EXISTING WATER SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING WATER SERVICE CONNECTION IF FEASIBLE. OTHERWISE REMOVE EXISTING WATER SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL WATER COMPANY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL WATER COMPANY PRIOR TO COMPLETION. IF THE EXISTING WATER SERVICE CAN NOT BE UTILIZED, THE NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL WATER COMPANY. CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.

EXISTING GAS SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING GAS SERVICE CONNECTION IF FEASIBLE. OTHERWISE REMOVE EXISTING GAS SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL GAS COMPANY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL GAS COMPANY PRIOR TO COMPLETION. ANY NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL GAS COMPANY. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.

SANITARY SEWER SERVICE NOTE: CONTRACTOR TO LOCATE AND UTILIZE EXISTING SEWER SERVICE CONNECTION IF OF ADEQUATE SIZE AND INTEGRITY AND ACCEPTABLE TO LOCAL SEWER AUTHORITY. OTHERWISE CONTRACTOR TO REMOVE EXISTING SEWER SERVICE LINE AND CAP AT MAIN IN R.O.W. IN ACCORDANCE WITH THE LOCAL SEWER AUTHORITY REQUIREMENTS. TERMINATION AT THE MAIN MUST BE APPROVED BY THE LOCAL SEWER AUTHORITY PRIOR TO COMPLETION. IF EXISTING SEWER SERVICE CAN NOT BE UTILIZED THEN THE NEW SERVICE IS TO BE COORDINATED AND VERIFIED FOR LOCATION WITH THE LOCAL SEWER AUTHORITY. CONTRACTOR SHALL OBTAIN ALL REQUIRED STREET OPENING PERMITS FOR REMOVAL OF EXISTING SERVICE AND INSTALLATION OF NEW SERVICE.



GRADING/UTILITY GRAPHIC LEGEND

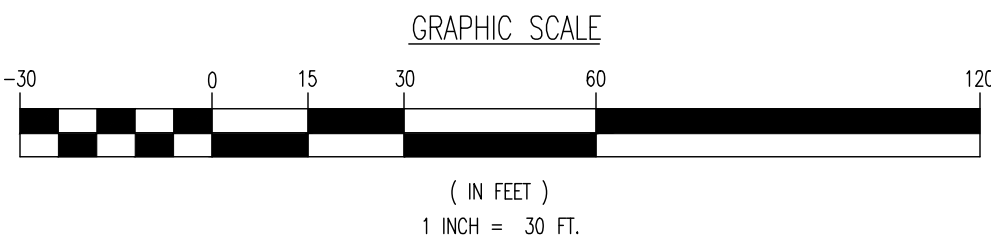
	EXIST. GUY WIRE		EXIST. CABLE LINE
	EXIST. LIGHT POLE		EXIST. CABLE LINE
	EXIST. BUILDING LIGHT		EXIST. ELECTRIC LINE
	EXIST. FIRE HYDRANT		EXIST. ELECTRIC LINE
	EXIST. SHOE BOX LIGHT		EXIST. FIBER OPTIC LINE
	EXIST. COBRA LIGHT POLE		EXIST. GAS LINE
	EXIST. TRAFFIC SIGNAL POLE		EXIST. GAS LINE
	EXIST. MANHOLE		EXIST. OVERHEAD WIRES
	EXIST. "A" INLET		EXIST. OVERHEAD WIRES
	EXIST. "B" INLET		EXIST. TELEPHONE LINE
	EXIST. YARD INLET		EXIST. WATER LINE
	EXIST. FLARED END SECTION		EXIST. WATER LINE
	EXIST. HEADWALL		EXIST. FIRE SERVICE
	EXIST. UTILITY POLE		EXIST. FIRE SERVICE
	EXIST. UTILITY POLE		EXIST. FIRE SERVICE

	EXIST. WATER VALVE		EXIST. WATER VALVE
	EXIST. GAS VALVE		EXIST. WATER VALVE
	EXIST. STORM CLEANOUT		EXIST. WATER VALVE
	EXIST. SANITARY CLEANOUT		EXIST. WATER VALVE
	EXIST. AREA LIGHT		EXIST. WATER VALVE
	EXIST. OUTLET CONTROL STRUCTURE		EXIST. WATER VALVE
	EXIST. DRAINAGE MANHOLE		EXIST. WATER VALVE
	EXIST. SANITARY SEWER MANHOLE		EXIST. WATER VALVE
	EXIST. "A" INLET		EXIST. WATER VALVE
	EXIST. "B" INLET		EXIST. WATER VALVE
	EXIST. "E" INLET		EXIST. WATER VALVE
	EXIST. FLARED END SECTION		EXIST. WATER VALVE
	EXIST. FLARED END SECTION		EXIST. WATER VALVE

	EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)		EXIST. UNDERGROUND ELEC./TELE. SERVICE (NO. & SIZE OF CONDUITS NOT DEFINED)
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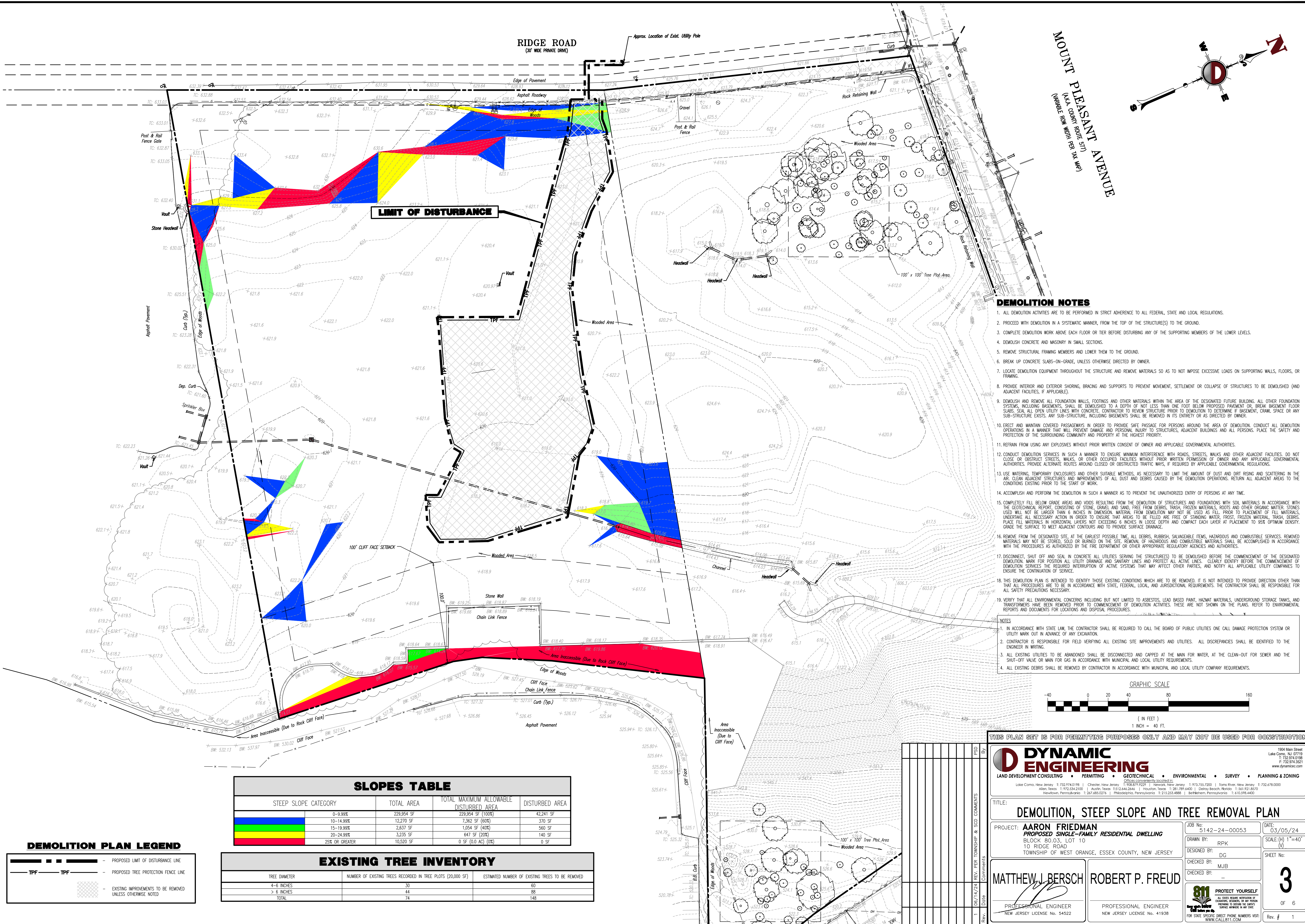
	EXIST. SPOT ELEVATIONS		EXIST. SPOT ELEVATIONS
	EXIST. GUTTER ELEV.		EXIST. SPOT ELEVATIONS
	EXIST. TOP OF CURB ELEV.		EXIST. SPOT ELEVATIONS
	EXIST. FINISH FLOOR ELEV.		EXIST. SPOT ELEVATIONS
	EXIST. GARAGE FLOOR ELEV.		EXIST. SPOT ELEVATIONS
	EXIST. GRADE SPOT ELEV.		EXIST. SPOT ELEVATIONS
	EXIST. TOP OF CURB & FINISHED GRADE ELEV.		EXIST. SPOT ELEVATIONS
	EXIST. FINISHED FLOOR ELEV.		EXIST. SPOT ELEVATIONS
	EXIST. TOP OF WALL & FINISHED GRADE @ LOW SIDE OF WALL		EXIST. SPOT ELEVATIONS
	EXIST. TOP OF WALL & FINISHED GRADE @ LOW SIDE OF WALL		EXIST. SPOT ELEVATIONS

TAX LOT 21
BLOCK 80.03
N/F MOUNTAIN RESOURCES CORP.
DB. 5272, PG. 748



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DYNAMIC ENGINEERING LAND DEVELOPMENT CONSULTING • PERMITTING • GEOTECHNICAL • ENVIRONMENTAL • SURVEY • PLANNING & ZONING	
1954 Main Street Lake Como, NJ 07719 T: 732.974.0198 F: 732.974.3521 www.dynamiceng.com	
TITLE: DRAINAGE AND UTILITY PLAN	
PROJECT: AARON FRIEDMAN PROPOSED SINGLE-FAMILY RESIDENTIAL DWELLING	JOB No: 5142-24-00053
DRAWN BY: SPR	DATE: 03/05/24
DESIGNED BY: DG	SCALE: (H) 1"=30' (V)
CHECKED BY: MJB	SHEET No: 2
CHECKED BY: -	OF 6
MATTHEW J. BERSCH ROBERT P. FREUD	
PROFESSIONAL ENGINEER NEW JERSEY LICENSE NO. 54522	
PROFESSIONAL ENGINEER NEW JERSEY LICENSE NO. 41938	
ALL STATES REQUIRE REGISTRATION OF GEOTECHNICALS. IF ANY SERVICE PERFORMED TO OBTAIN THE SERVICE, THE SERVICE PROVIDER MUST BE LICENSED IN THAT STATE.	
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: www.call811.com	
Rev. # 1	

Plotted: 07/08/24 - 3:04 PM, By: krazimr, Product Ver: 24.3a (JMS Tech)
File: P:\BECPC PROJECTS\6142 Aaron Friedman\24-00053 West Orange Dwg\Site Plans\01422400053SR0.dwg, ---> DEMOLITION STEEP SLOPE AND TREE REMOVAL PLAN



Plotted: 07/08/24 - 3:04 PM, By: krazimir, Product Ver: 24.3a (LMS Tech)
File: P:\VEPC PROJECTS\5142 Aaron Friedman\24-00053 West Orange Dwg\Site\Site Plan\04 SOIL EROSION & SEDIMENT CONTROL PLAN

TAX LOT 5
BLOCK 80.03
N/F MOUNTAIN RESOURCES CORP.
DB. 5272, PG. 748

TAX LOT 10
BLOCK 80.03
N/F MOUNTAIN RESOURCES CORP.
DB. 5272, PG. 748

TAX LOT 27
BLOCK 82.03
N/F BREA WO. EMERITUS, LLC
% ECOVA 3349
DB. 12019, PG. 5672

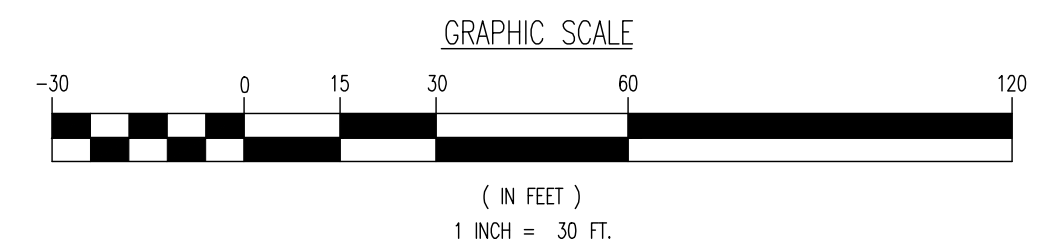
TAX LOT 21
BLOCK 80.03
N/F MOUNTAIN RESOURCES CORP.
DB. 5272, PG. 748

SOIL COMPACTION EXEMPTION NOTE
AS DELINEATED ON THE STATE PLAN POLICY MAP, THE PROJECT AREA FALLS WITHIN THE METROPOLITAN PLANNING AREA (PA1) WHICH IS CLASSIFIED AS AN URBAN REDEVELOPMENT AREA UNDER N.J.A.C 7:8. PER THE SOIL MANAGEMENT AND PREPARATION REQUIREMENTS, PROJECTS WITHIN AN URBAN REDEVELOPMENT AREA DO NOT REQUIRE COMPACTION REMEDIATION.

EROSION CONTROL LEGEND

- PROP. LIMIT OF DISTURBANCE LINE
- PROP. SILT FENCE LINE
- PROP. TREE PROTECTION FENCE LINE
- PROP. INLET FILTER

SEE SHEET 5 OF 6 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES & DETAILS



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1954 Main Street Lake Como, NJ 07719 T: 732.974.0198 F: 732.974.3521 www.dynamiceng.com	
TITLE: SOIL EROSION & SEDIMENT CONTROL PLAN	
PROJECT: AARON FRIEDMAN PROPOSED SINGLE-FAMILY RESIDENTIAL DWELLING	JOB No: 5142-24-00053
BLOCK: 80.03, LOT 10 10' RIDGE ROAD TOWNSHIP OF WEST ORANGE, ESSEX COUNTY, NEW JERSEY	DATE: 03/05/24
DRAWN BY: RPK	SCALE: (H) 1"=30' (V)
DESIGNED BY: DG	SHEET No:
CHECKED BY: MJB	4
CHECKED BY: -	OF 6
MATTHEW J. BERSCH PROFESSIONAL ENGINEER NEW JERSEY LICENSE No. 54522	ROBERT P. FREUD PROFESSIONAL ENGINEER NEW JERSEY LICENSE No. 41938
811 PROTECT YOURSELF ALL STATES REQUIRE NOTIFICATION OF CONCRETE, METAL, OR ANY OTHER PREPARED TO LOCATE THE SERVICE ORANGE, NJ, 07030 FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM	

Plotted: 07/08/24 By: krazimr. Product Ver: 24.3a (LUS Tech) File: P:\BCEPC PROJECTS\5142 - 05 SOIL EROSION & SEDIMENT CONTROL NOTES & DETAILS

SOIL EROSION & SEDIMENT CONTROL NOTES

- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN WILL BE CONSTRUCTED IN ACCORDANCE WITH THE "NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL," 7TH EDITION LAST REVISED JULY 2017, EFFECTIVE DECEMBER 2017. THESE MEASURES WILL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- SOIL TO BE EXPOSED OR STOCKPILED FOR A PERIOD OF GREATER THAN 14 DAYS, AND NOT UNDER ACTIVE CONSTRUCTION, MAY BE REQUIRED TO BE TEMPORARILY MULCHED, AND SEEDED OR OTHERWISE PROVIDED WITH VEGETATIVE COVER AS PER APPENDIX A3. THIS TEMPORARY COVER SHALL BE MAINTAINED UNTIL SUCH TIME WHEREBY PERMANENT ESTABLISHMENT IS ESTABLISHED.
- SEEDING DATES: THE FOLLOWING SEEDING DATES ARE RECOMMENDED TO BEST ESTABLISH PERMANENT VEGETATIVE COVER WITHIN MOST LOCATIONS IN THE HEPSCOD SPRING - 3/15-5/15 AND FALL - 8/15 - 10/1
- SEDIMENT FENCES ARE TO BE PROPERLY TRENCHED AND MAINTAINED UNTIL PERMANENT VEGETATIVE COVER IS ESTABLISHED
- ALL STORM DRAINAGE INLETS SHALL BE PROTECTED BY ONE OF THE PRACTICES ACCEPTED IN THE STANDARDS, AND PROTECTION SHALL REMAIN UNTIL PERMANENT STABILIZATION HAS BEEN ESTABLISHED. STORM DRAINAGE OUTLET PIPES SHALL BE PROTECTED AS REQUIRED BEFORE THEY BECOME FUNCTIONAL.
- MULCH MATERIALS SHALL BE UN-ROTTED SMALL GRASS STRAW APPLIED AT THE RATE OF 70 TO 90 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.
- ALL EROSION CONTROL DEVICES SHALL BE PERIODICALLY INSPECTED, MAINTAINED AND CORRECTED BY THE CONTRACTOR. ANY DAMAGE INCURRED BY EROSION SHALL BE RECTIFIED IMMEDIATELY.
- THE HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT WILL BE NOTIFIED IN WRITING AT LEAST 48 HOURS PRIOR TO ANY SOIL DISTURBING ACTIVITIES. FAX - (862) 333-4507 OR EMAIL - INFORMATION@HEPSCOD.ORG
- THE APPLICANT MUST OBTAIN A DISTRICT ISSUED REPORT-OF-COMPLIANCE PRIOR TO APPLYING FOR THE CERTIFICATE OF OCCUPANCY OR TEMPORARY CERTIFICATE OF OCCUPANCY FROM THE RESPECTIVE MUNICIPALITY, NJ - DCA OR ANY OTHER CONTROLLING AGENCY. CONTACT THE DISTRICT AT 862-333-4505 TO REQUEST A FINAL INSPECTION, GIVING ADVANCED NOTICE UPON COMPLETION OF THE RESTABILIZATION MEASURES. A PERFORMANCE DEPOSIT MAY BE POSTED WITH THE DISTRICT WHEN WINTER WEATHER OR SNOW COVER PROHIBITS THE PROPER APPLICATION OF SEED, MULCH, FERTILIZER OR HYDRO-SEED.
- PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES. DO NOT UTILIZE A FIRE OR GARDEN HOSE TO CLEAN ROADS UNLESS THE RUNOFF IS DIRECTED TO A PROPERLY DESIGNED AND FUNCTIONING SEDIMENT BASIN. WATER PUMPED OUT OF THE EXCAVATED AREAS CONTAINS SEDIMENTS THAT MUST BE REMOVED PRIOR TO DISCHARGING TO RECEIVING BODIES OF WATER USING REMOVABLE PUMPING STATIONS, SUMP PITS, PORTABLE SEDIMENTATION TANKS AND/OR SILT CONTROL BAGS.
- ALL SURFACES HAVING LAWN OR LANDSCAPING AS FINAL COVER ARE TO BE PROVIDED TOPSOIL PRIOR TO RE-SEEDING, SOODING OR PLANTING. A DEPTH OF 5.0 INCHES, FIRMD IN PLACE, IS REQUIRED, AS PER THE STANDARDS FOR TOPSOILING AND LAND GRADING, EFFECTIVE DECEMBER 2017.
- ALL PLAN REVISIONS MUST BE SUBMITTED TO THE DISTRICT FOR PROPER REVIEW AND APPROVAL.
- A CRUSHED STONE WHEEL CLEANING TRACKING-PAD IS TO BE INSTALLED AT ALL SITE EXITS USING 2 ½ - 1" CRUSHED ANGULAR STONE (ASTM 2 OR 3) TO A MINIMUM DEPTH OF 50 FEET AND MINIMUM DEPTH OF 6". ALL DRIVEWAYS MUST BE PROVIDED WITH CRUSHED STONE UNTIL PAVING IS COMPLETE.
- STEEP SLOPES INCURRING DISTURBANCE MAY REQUIRE ADDITIONAL STABILIZATION MEASURES. THESE "SPECIAL" MEASURES SHALL BE DESIGNED BY THE APPLICANT'S ENGINEER AND BE APPROVED BY THE SOIL CONSERVATION DISTRICT.
- THE HUDSON-ESSEX-PASSAIC SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED, IN WRITING, FOR THE SALE OF ANY PORTION OF THE PROJECT OR FOR THE SALE OF INDIVIDUAL LOTS. NEW OWNERS' INFORMATION SHALL BE PROVIDED. ADDITIONAL MEASURES, DEEMED NECESSARY BY DISTRICT OFFICIALS SHALL BE IMPLEMENTED AS CONDITIONS WARRANT.

SEQUENCE OF CONSTRUCTION:

- PHASE 1: INSTALL STONE ANTI-TRACKING PAD AND OTHER SOIL EROSION SEDIMENT CONTROL MEASURES INCLUDING INLET PROTECTION AND SILT FENCING. (1 DAY)
- PHASE 2: CLEAR AND ROUGH GRADE FOR NEW BUILDING SITE AND OTHER STRUCTURES REQUIRING EXCAVATION. (2 WEEKS)
- PHASE 3: EXCAVATE AND INSTALL UNDERGROUND PIPING AND DRAINAGE STRUCTURES. (3 WEEKS)
- PHASE 4: EXCAVATE BUILDING FOUNDATION (1 WEEK)
- PHASE 5: COMPLETE BUILDING CONSTRUCTION. (4 WEEKS)
- PHASE 6: EXCAVATE AND INSTALL ON SITE IMPROVEMENTS AND AMENITIES. (3 WEEKS)
- PHASE 7: FINAL GRADE SITE (1 WEEK)
- PHASE 8: INSTALL PAVING, CONCRETE, AND FINAL VEGETATION INCLUDING SEEDING AND LANDSCAPING. PERMANENTLY STABILIZE ALL EXPOSED AREAS. (2 WEEKS)
- PHASE 9: REMOVE ALL SOIL EROSION SEDIMENT CONTROL MEASURES INCLUDING INLET PROTECTION AND DOWN SLOPE PERIMETER SILT FENCING UPON COMPLETION. (1 DAY)

STABILIZATION SPECIFICATIONS - TEMPORARY SEEDING AND MULCHING:

- PRIOR TO SEEDING, MIX TOP 6" LAYER OF TOPSOIL WITH FERTILIZER AND LIME.
- LIMESTONE - 2 TONS/ ACRE UNLESS SOIL TESTING INDICATES OTHERWISE.
- FERTILIZER - 500 LBS/ ACRE OR 11 LBS/ 1000 SF OF 10-20-10 OR EQUIVALENT WITH SOLR INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE.
- SEEDS:
 - COOL SEASON:
 - PERENNIAL RYE GRASS 100LBS/ACRE OR OTHER APPROVED SEEDS; PLANT BETWEEN APRIL 30 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 15.
 - WARM SEASON:
 - FLAT PEA AT 25 LBS/AC. OR OTHER APPROVED SEEDS; PLANT BETWEEN MAY 1 AND AUGUST 14.
 - MULCH - UNROTTED SMALL GRASS STRAW, HAY FREE OF SEEDS, OR SALT HAY AT A RATE OF 1.5-2 TONS PER ACRE 70 TO 90 LBS/1000 SF TO BE APPLIED ACCORDING TO THE STATE STANDARDS. MULCH SHALL BE SECURED BY APPROVED METHODS (LIE, PEG AND TWINE, MULCH NETTING, LIQUID MULCH BINDER, OR CRUMPER

STANDARD FOR TEMPORARY STABILIZATION WITH SOD

METHODS AND MATERIALS

- CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD. SPECIFY "CERTIFIED SOD," OR OTHER HIGH QUALITY CULTIVATED SOD.
- SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEED GRASSES.
- SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING. (EXCLUDES TOP GROWTH.)
- SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER PERCENT OR THE BROKEN PADS OR TORN AND UNDEEN ENDS WILL NOT BE ACCEPTABLE.
- FOR DRAUGHT SITES, A SOD OF KENTUCKY 31 TALL FESCUE AND BLUEGRASS IS PREFERRED OVER A STRAIGHT BLUEGRASS SOD.
- ONLY MOIST, FRESH, UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS.

I. SITE PREPARATION

- GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR LIMING, FERTILIZING, AND SOIL PREPARATION. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING, PAGE A.11.
- INSTALL NEEDED EROSION CONTROL PRACTICES AND FACILITIES, SUCH AS INTERCEPT DITCHES, DIKES AND TERRACES, EROSION STOPS, AND DE-SILTING BASINS. SEE STANDARDS 4.2 THROUGH 4.16.

II. SOIL PREPARATION

- APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY RUTGERS UNIVERSITY SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 300 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT WITH SOLR WATER INSOLUBLE NITROGEN AND INCORPORATED INTO THE SURFACE 4". IN ADDITION, 300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT OF SLOW RELEASE NITROGEN MAY BE USED IN LIEU OF TOP-DRESSING. APPLY LIMESTONE AS FOLLOWS:

SOIL TEXTURE	TONS/ACRE	LBS/1000 SQ. FT
CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL	3	135
SANDY LOAM, LOAM, SILT LOAM	2	90
LOAMY SAND, SAND	1	45
- PULVERIZED CALCINITE LIMESTONE IS PREFERRED FOR MOST SOILS SOUTH OF THE NEW BRUNSWICK-TRENTON LINE.
- WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCOING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED.
- REMOVE FROM THE SURFACE ALL OBJECTS THAT WOULD PREVENT GOOD SOD TO SOIL CONTACT AND REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS, OR OTHER UNSUITABLE MATERIAL.
- INSPECT SITE JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED AND FIRMED AS ABOVE.

III. SOD PLACEMENT

- SOD STRIPS SHOULD BE LAD ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
- PLACE SOD STRIPS WITH SMUG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES WHITE EROSION.
- ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOD CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS.
- ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES, OR SPLIT SHINGLES (8 TO 10 INCHES LONG BY 3/4 INCH WIDE).
- SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.
- IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS.

IV. TOP-DRESSING

- IF SLOW RELEASE NITROGEN IS USED IN ADDITION TO SUGGESTED FERTILIZER, THEN A FOLLOW-UP OF TOP DRESSING IS NOT MANDATORY, EXCEPT WHERE GROSS NITROGEN DEFICIENCY EXISTS IN THE SOIL TO THE EXTENT THAT TURF FAILURE MAY DEVELOP.
- TOP-DRESS WITH 10-30-10 OR EQUIVALENT AT 400 POUNDS PER ACRE OR 70 POUNDS PER 1,000 SQUARE FEET EVERY 3 TO 5 WEEKS UNTIL THE GROSS NITROGEN DEFICIENCY IN THE TURF IS AMELIORATED.

STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

1. SITE PREPARATION

- GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
- IMMEDIATELY PRIOR TO TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.
- TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.
- INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS OVERSOWS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

2. SEEDBED PREPARATION

- UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NJAES.RUTGERS.EDU/COUNTY/)
 - FERTILIZER SHALL BE APPLIED AT THE RATE OF 300 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT WITH SOLR WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT. ANOTHER ONE-HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
- WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
- HIGH ACID PRODUCING SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED PREPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID-PRODUCING SOILS FOR SPECIFIC RECOMMENDATIONS.

3. SEEDING

A. PERMANENT VEGETATIVE MIXTURES & PLANTING RATES

GENERAL LAWN AREAS (SCD MIX 13 FROM TABLE 4)

- | | 175 LBS/ACRE | 4 LBS/1000 SQ.FT. |
|--|--------------|-------------------|
| (1) HARD FESCUE AND/OR CHEERING FESCUE AND/OR STRONG CREEPING RED FESCUE - | 175 LBS/ACRE | 4 LBS/1000 SQ.FT. |
| (2) PERENNIAL RYEGRASS - | 45 LBS/ACRE | 1 LBS/1000 SQ.FT. |
| (3) KENTUCKY BLUEGRASS (BLENDED) - | 45 LBS/ACRE | 1 LBS/1000 SQ.FT. |

BASIN AREAS (SCD MIX 9 FROM TABLE 4)

- | | 20 LBS/ACRE | 0.45 LBS/1000 SQ.FT. |
|-------------------------|-------------|----------------------|
| (1) DEER TONGUE - | 2 LBS/ACRE | 0.05 LBS/1000 SQ.FT. |
| (2) REEDTOP - | 15 LBS/ACRE | 0.35 LBS/1000 SQ.FT. |
| (3) WILD RYE (ELYMUS) - | 25 LBS/ACRE | 0.60 LBS/1000 SQ.FT. |
| (4) SWITCHGRASS - | | |

- CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE-TEXTURED SOIL.
- AFTER SEEDING, FIRING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAINTAINED.
- HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK, OR TRAILER-MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORTCUTTED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION 4-MULCHING BELOW). HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. WHEN POOR SEED TO SOIL CONTACT OCCURS, THERE IS A REDUCED SEED GERMINATION AND GROWTH.

4. MULCHING

- MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL PROTECT AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. IF THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.

- STRAW OR HAY. UNROTTED SMALL GRASS STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1.5 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRUMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BINDERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.

- APPLICATION, SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 85% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITH EACH SECTION.

- ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS IN ACCORDANCE WITH THE STATE STANDARDS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, AND COST:

- PEG AND TWINE
- MULCH NETTING
- CRUMPER MULCH ANCHORING COULTER TOOL
- LIQUID MULCH-BINDERS

- WOOD-FIBER OR PAPER-FIBER MULCH - SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHERITING MATERIALS, USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. MULCH SHALL NOT BE MADE IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

- PELLETIZED MULCH - COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS, AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDBED AREA AND WATERED, FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LBS/1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RECREATION AREAS. SEEDBED AREAS WHERE MEDDSED FREE MULCH IS DESIRED, OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE, APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

STABILIZATION SPECIFICATIONS PERMANENT SEEDING:

GENERAL SITE SEEDING MIX:

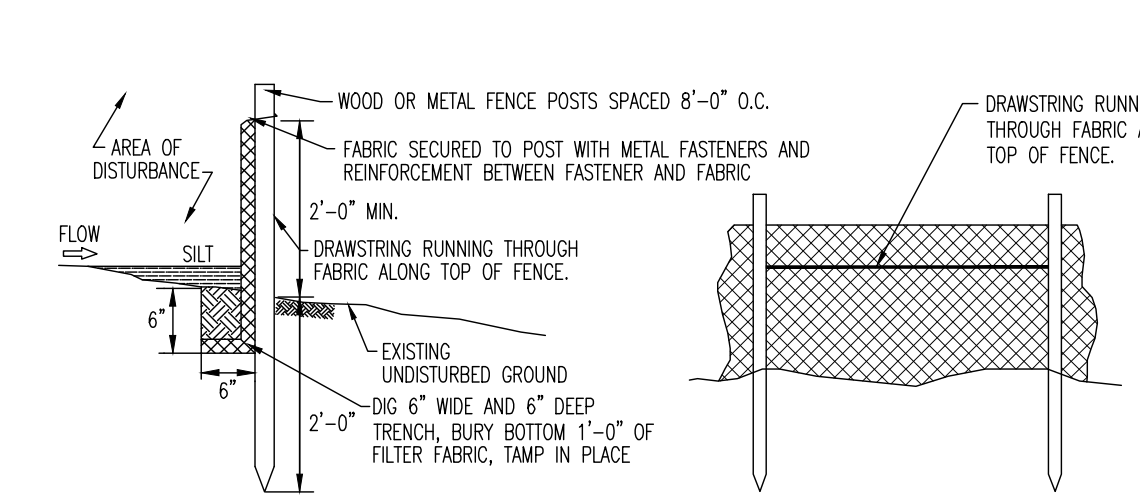
- | | 75 LBS/ACRE | 2.1 LBS/1000 SQ.FT. |
|----------------------|-------------|----------------------|
| HARD FESCUE - | 75 LBS/ACRE | 2.1 LBS/1000 SQ.FT. |
| PERENNIAL RYEGRASS - | 10 LBS/ACRE | 0.25 LBS/1000 SQ.FT. |
| KY. BLUEGRASS - | 10 LBS/ACRE | 0.25 LBS/1000 SQ.FT. |
| WHITE CLOVER - | 5 LBS/ACRE | 0.1 LBS/ 100 SQ.FT. |

- PERMANENT STABILIZATION SPECIFICATIONS:

- MULCHING/MULCH MATERIALS TO BE UNROTTED SMALL GRASS STRAW, HAY FREE OF SEEDS, OR SALT HAY AT THE RATE OF 1.5 TO 2 TONS PER ACRE OR 70 TO 90 POUNDS PER 1,000 SQ. FT. EXCEPT THAT WHERE A CRUMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER, THE RATE OF APPLICATION IS 3 TONS PER ACRE.
- SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 85% OF SOIL SURFACE WILL BE COVERED.
- MULCH ANCHORING TO BE DONE IMMEDIATELY AFTER PLACEMENT BY ONE OF THE FOLLOWING METHODS:
 - PEG AND TWINE
 - MULCH NETTING
 - LIQUID MULCH-BINDERS
 - CRUMPER (MULCH ANCHORING COULTER TOOL)

MULCH STABILIZATION

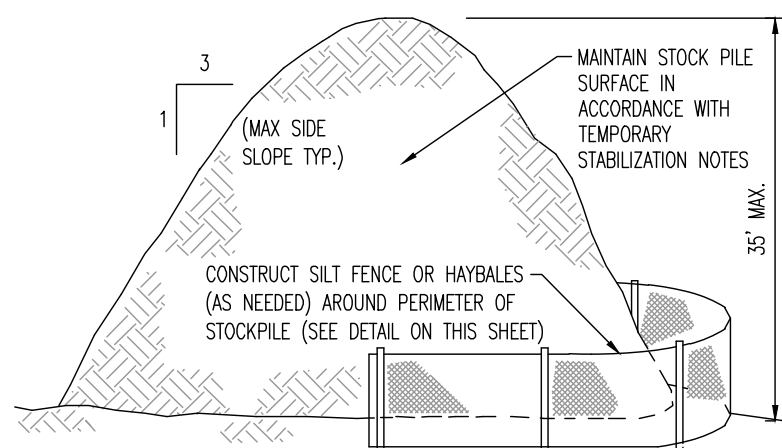
- UNROTTED SMALL-GRASS STRAW, OR SALT HAY AT 2.0 TO 2.5 TONS PER ACRE IS SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.
- ASPHALT EMULSION IS RECOMMENDED AT THE RATE OF 600 TO 1,200 GALLONS PER ACRE. THIS IS SUITABLE FOR A LIMITED PERIOD OF TIME WHERE TRAVEL BY PEOPLE, ANIMALS, OR MACHINES IS NOT A PROBLEM.
- SYNTHETIC OR ORGANIC SOIL STABILIZERS MAYBE USED UNDER SUITABLE CONDITIONS AND IN QUANTITIES AS RECOMMENDED BY THE MANUFACTURER.
- WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE MANUFACTURER'S REQUIREMENTS) MAY BE APPLIED BY A HYDROSEEDER.
- MULCH NETTING, SUCH AS PAPER JUTE, EXCLUSORY COTTON, OR PLASTIC, MAYBE USED.
- WOOD CHIPS APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 2 INCHES MAY BE USED EXCEPT IN AREAS OF FLOWING WATER.
- GRAVEL, CRUSHED STONE, OR SLAG AT RATE OF 9 CUBIC YARDS PER 1000 SQ. FT. AT DEPTH OF 3 INCHES.
- MULCH ANCHORING TO BE DONE IMMEDIATELY AFTER PLACEMENT BY ONE OF THE FOLLOWING METHODS:
 - PEG AND TWINE
 - MULCH NETTING
 - LIQUID MULCH-BINDERS
 - CRUMPER (MULCH ANCHORING COULTER TOOL)



- PLACE SILT FENCE AT LOCATIONS AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
- THE SURF OF THE LAND FOR AT LEAST 10 FEET ADJACENT TO ANY SILT FENCE SHALL NOT EXCEED 5 PERCENT.
- SILT FENCE SHALL BE INSTALLED SO WATER CANNOT BYPASS THE FENCE ALONG THE SIDES.
- INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE AS PROMPTLY AS POSSIBLE.
- SILT FENCE SHALL REMAIN IN PLACE FOR THE DURATION OF THE PROJECT UNLESS OTHERWISE INSTRUCTED BY THE TOWNSHIP ENGINEER OR SOIL CONSERVATION DISTRICT.
- THE BARRIER SHALL BE REMOVED WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED SO AS NOT TO BLOCK OR IMPED STORM FLOW OR DRAINAGE.
- FENCE POSTS SHALL BE SPACED 8 FEET CENTER-TO-CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST 2 FEET INTO THE GROUND AND EXTEND AT LEAST 2 FEET ABOVE GROUND. POSTS SHALL BE CONSTRUCTED OF HAWKWOOD A MIN. DIAMETER THICKNESS OF 1 1/2 INCHES.
- A METAL FENCE WITH 6 INCH OR SMALLER OPENINGS AND AT LEAST 2 FEET HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEOTEXTILE FABRIC WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED.
- A GEOTEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6 INCHES DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST 2 FEET ABOVE GROUND. FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND HIGH STRENGTH REINFORCEMENT MATERIAL (WIRE MESHING, CRIMPER, WICKERS ETC) PLACED BETWEEN THE FASTENER AND THE GEOTEXTILE FABRIC. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POST. THE FABRIC SHALL INCORPORATE A DRAWSTRING IN THE TOP PORTION OF THE FENCE FOR ADJUST STRENGTH.

SILT FENCE DETAIL

NOT TO SCALE



TEMPORARY STOCKPILE DETAIL

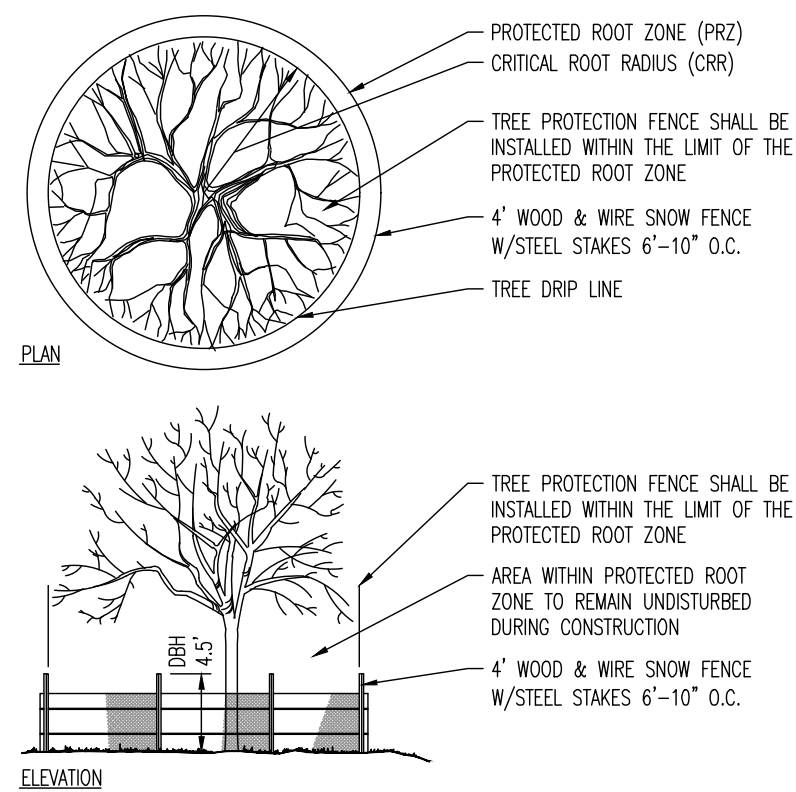
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STANDARD FOR DUST CONTROL

- DEFINITION - THE CONTROL OF DUST ON CONSTRUCTION SITES AND ROADS.
- PURPOSE - TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON-AND-OFF- SITE DAMAGE AND HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY.
- WHERE APPLICABLE - THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:
- MULCHES - SEE STANDARDS FOR STABILIZATION WITH MULCHES ONLY
- VEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER, PERMANENT VEGETATIVE COVER, AND PERMANENT STABILIZATION WITH SOD.
- SPRAY-ON ADHESIVES - ON MINERAL SOILS (NOT EFFECTIVE ON MOCK SOILS). KEEP TRAFFIC OFF THESE AREAS.

	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ACRE
ANIONIC ASPHALT	7:1	COARSE SPRAY	1,200
EMULSION			
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIN IN WATER	4:1	FINE SPRAY	300

- 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 WINDWARD SIDE OF CHANNEL-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 - SOLD BOARD FENCES, SNOW FENCES, BURIAL FENCES, CRATE WALLS, BALES 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 GRANULES OR 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.

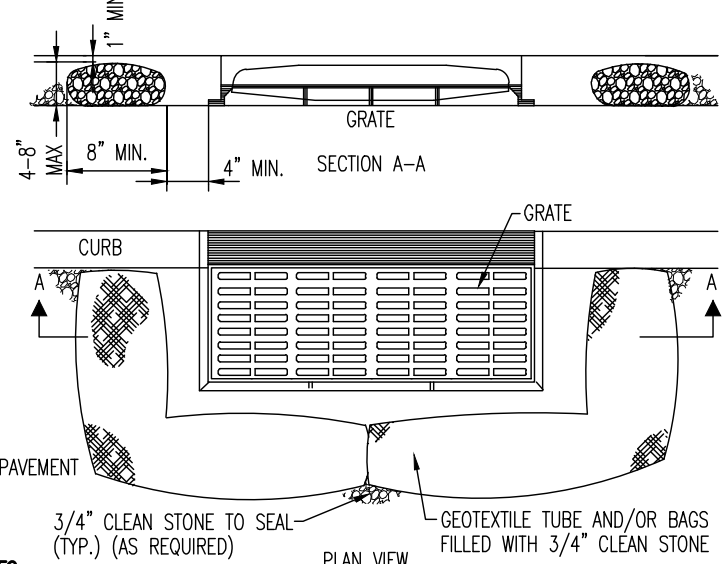


- ESTIMATE A TREE'S PROTECTED ROOT ZONE (PRZ) BY CALCULATING THE CRITICAL ROOT RADIUS (CRR)
- MEASURE THE DBH (DIAMETER OF TREE AT BREAST HEIGHT, 4.5' ABOVE GROUND ON THE UPHILL SIDE OF TREE) IN INCHES.
 - MULTIPLY MEASURED DBH BY 1.5 OR 1.0. EXPRESS THE RESULT IN FEET

- DBH x 1.5: CRITICAL ROOT RADIUS FOR OLDER, UNHEALTHY, OR SENSITIVE SPECIES.
- DBH x 1.0: CRITICAL ROOT RADIUS FOR YOUNGER, HEALTHY OR TOLERANT SPECIES.

TREE PROTECTION DURING SITE CONSTRUCTION DETAIL

NOT TO SCALE



NOTES:

- GEOTEXTILE TO BE WOVEN POLYPROPYLENE PRODUCT 117T, BY SYNTHETIC INDUSTRIES INC., OR TERRACE SC, BY WETEC INC., OR APPROVED EQUAL.
- 3/4" CLEAN STONE CORE SHALL BE COMPLETELY CONTAINED WITHIN GEOTEXTILE. SEAMS SHALL BE SEWN OR CLOSED BY SUITABLE MECHANICAL MEANS TO PREVENT LEAKAGE OF STONE.
- WHERE NO CURB IS PRESENT, BARRIER SHALL COMPLETELY ENCLOSE THE GRASS INLET.
- INLET GRATE OPENING IS TO BE KEPT CLEAR OF OBSTRUCTIONS AT ALL TIMES.
- THE PROTECTION DEVICE WILL BE DESIGNED TO CAPTURE OR FILTER RUNOFF FROM THE 1 YEAR, 24 HOUR STORM EVENT AND SHALL SPECIFICALLY CATCH FLOW DIRECTLY INTO THE STORM SEWER SYSTEM.
- OTHER METHODS THAT ACCOMPLISH THE PURPOSE OF STORM SEWER INLET PROTECTION MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.
- INSPECTIONS SHALL BE FREQUENT. MAINTENANCE, REPAIR, AND REPLACEMENT SHALL BE MADE PROMPTLY, AS NEEDED. THE BARRIER SHALL BE REMOVED WHEN THE AREA DRAINING TOWARDS THE INLET HAS BEEN STABILIZED.

INLET FILTER, TYPE 1

NOT FOR USE WITHIN MAJOR RIGHT-OF-WAY

INLET FILTER COMBINED DETAIL

NOT TO SCALE

MUNICIPAL, COUNTY, STATE AND MUA DETAILS TO SUPERSEDE DYNAMIC ENGINEERING DETAILS WHERE APPLICABLE

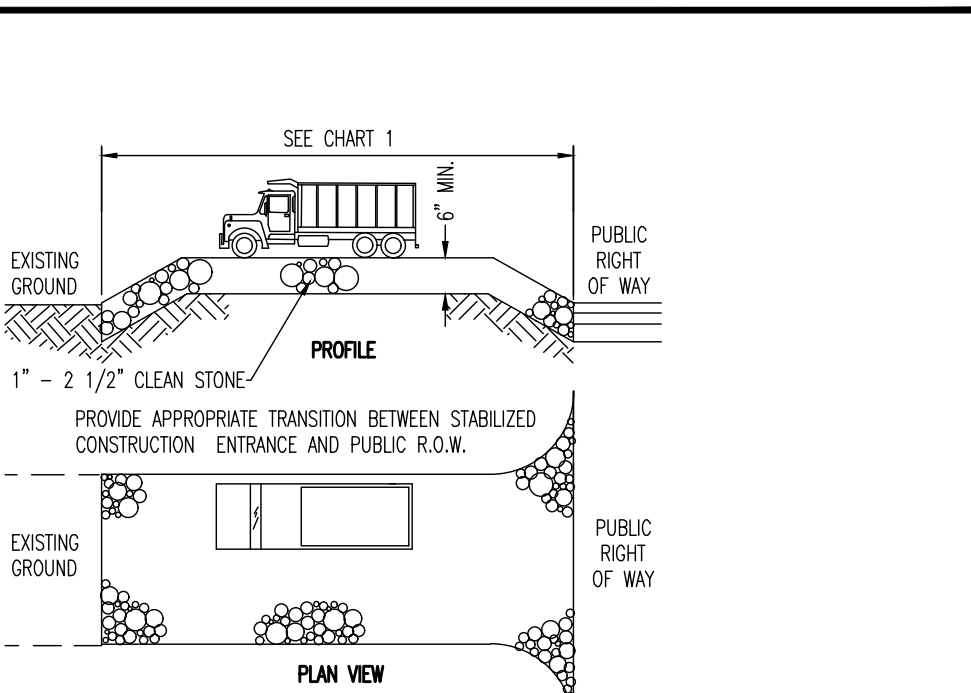


CHART 1

PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED
0% TO 2%	COARSE GRAINED SOILS FINE GRAINED SOILS
2% TO 5%	50 FT 100 FT
>5%	100 FT 200 FT
	ENTIRE ENTRANCE STABILIZED WITH FABR BASE COURSE (1)

(1) AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY.

STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

