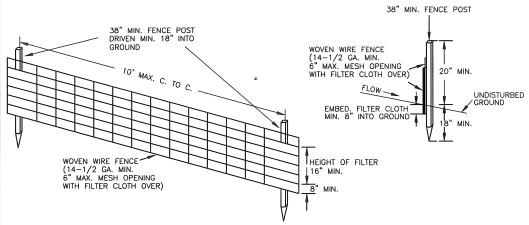
GENERAL NOTES:

1. ELEVATIONS REFER TO CITY OF NEWTON BASE. BENCHMARK: MACHETIC PK NAIL SET IN UTILITY POLE, ELEVATION=118.25.
2. THE LOCATION AND ELEVATIONS OF ALL EXISTING UTILITIES SHALL BE CONSIDERED APPROXIMATE AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ANY CROSSINGS OF PROPOSED AND EXISTING UTILITIES.
3. MASSACHUSETTS STATE LAW REQUIRES UTILITY NOTIFICATION AT LEAST THREE BUSINESS DAYS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CALL DIG-SAFE AT 811 OR 1-888-DIG-SAFE (1-888-344-7233) IN ORDER TO COMPLY WITH STATE LAW.
4. ALL UTILITY CONSTRUCTION SHALL CONFORM TO THE CITY OF NEWTON GENERAL CONSTRUCTION DETAILS, LATEST EDITION, PREPARED AND ISSUED BY THE NEWTON ENGINEERING DEPARTMENT. COPIES MAY BE OBTAINED AT THE OFFICE OF THE CITY ENGINEER.
5. NO WORK WITHIN ANY CITY OF NEWTON RIGHT-OF-WAY IS ALLOWED BETWEEN NOVEMBER 15TH AND APRIL 15TH. IF AN EMERGENCY EXISTS OR THERE ARE EXTENUATING CIRCUMSTANCES. THE APPLICANT MAY REQUEST PERMISSION FORM THE CITY ENGINEER, OR DESIGNEE FOR SUCH WORK.
6. ALL CONSTRUCTION ACTIVITIES WITHIN THE CITY OF NEWTON RIGHT-OF-WAY MUST FULLY COMPLY WITH ALL CITY OF NEWTON CONSTRUCTION SPECIFICATIONS AS WELL AS 521 CMR 21.00 AND 22.00.
7. ALL WORK SHALL BE SUBJECT TO THE INSPECTION BY AND APPROVAL OF THE CITY ENGINEER.
8. NO EXCAVATION SHALL BE MADE BY THE CONTRACTOR IN ANY PUBLIC WAY OR UTILITY EASEMENT UNLESS AT LEAST FORTY-EIGHT (48) HOURS, EXCLUSIVE OF SATURDAYS, SUNDAYS AND HOLIDAYS, BEFORE THE PROPOSED EXCAVATION IS TO BE MADE. HE HAS SUBMITTED BY WRITTEN NOTICE OF THE PROPOSED EXCAVATION TO THE FOLLOWING:
   A. SUCH PUBLIC UTILITY COMPANIES AS SUPPLY GAS, ELECTRICITY AND TELEPHONE SERVE IN THE CITY.
   B. SUCH PRIVATE COMPANIES AS PROVIDE CABLE TELEVISION SERVICE IN THE CITY.
   C. CITY OF NEWTON WATER & SEWER DEPARTMENT.
   SUCH NOTICE SHALL SET FORTH THE STREET NAME AND A REASONABLY ACCURATE DESCRIPTION OF THE LOCATION OF THE EXCAVATION.
9. THE CONTRACTOR SHALL PROVIDE CITY OF NEWTON POLICE OFFICERS FOR THE DIRECTION AND CONTROL OF TRAFFIC, AS REQUIRED BY THE CITY ENGINEER.
10. NO WORK SHALL BE PREFORMED UNTIL THE NECESSARY PERMITS ARE OBTAINED FROM THE CITY OF NEWTON PUBLIC WORKS DEPARTMENT.
11. ALL TRENCHES IN PAVED STREETS SHALL BE TEMPORARILY PATCHED TO THE SAME DEPTH OF THE EXISTING PAVEMENT (BINDER & TOP), OR AS DIRECTED BY THE ENGINEERING SITE INSPECTOR, LAID HOT AND MAINTAINED UNTIL THE PERMANENT PATCH IS INSTALLED.
12. WITH THE EXCEPTION OF THE GAS UTILITY SERICES, ALL UTILITY TRENCHES WITHIN ANY CITY OF NEWTON RIGHT-OF-WAY WILL BE BACKFILLED WITH TYPE IE (EXCAVATABLE) CONTROLLED DENSITY FILL, AS SPECIFIED BY THE CITY OF NEWTON ENGINEERING SPECIFICATIONS.
13. WARNING SIGNS SHALL CONFORM TO PAGE 12 OF THE CITY OF NEWTON GENERAL CONSTRUCTION DETAILS.
14. THE APPLICANT WILL HAVE TO APPLY FOR A STREET OPENING AND UTILITIES CONNECTION PERMITS AS WELL AS A SIDEWALK CROSSING PERMIT WITH THE DPW.
15. ALL TRENCH EXCAVATION CONTRACTORS SHALL COMPLY WITH MASSACHUSETTS GENERAL LAWS CHAPTER 82A, TRENCH EXCAVATION SAFETY REQUIREMENTS, TO PROTECT THE GENERAL PUBLIC FROM UNAUTHORIZED ACCESS TO UNATTENDED TRENCHES. TRENCH EXCAVATION PERMIT REQUIRED. THIS APPLIES TO ALL TRENCHES ON PUBLIC AND PRIVATE PROPERTY.
16. IN CASES WHERE LEDGE OR BOULDERS ARE ENCOUNTERED, EVERETT M. BROOKS CO. INC, WILL NOT BE RESPONSIBLE FOR THE AMOUNT OF ROCK ENCOUNTERED.
17. IF ANY PART OF THIS DESIGN IS TO BE ALTERED IN ANY WAY, THE DESIGN ENGINEER, AS WELL AS THE APPROVING AUTHORITIES, SHALL BE NOTIFIED IN WRITING BEFORE CONSTRUCTION.
18. PRIOR TO AN OCCUPANCY PERMIT BEING ISSUED, AN AS-BUILT PLANS SHOULD BE SUBMITTED TO THE ENGINEERING DIVISION IN BOTH DIGITAL FORMAT AND HARD COPY. THE PLAN SHOULD SHOW ALL UTILITIES AND DRAINAGE (INCLUDING SWING-TIES), EASEMENTS AND FINAL GRADING.
19. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE DESIGN ENGINEER FOR INSPECTIONS OR AS-BUILT LOCATIONS. EVERETT M. BROOKS CO, INC. WILL NOT PROVIDE AS-BUILT CERTIFICATIONS TO UNINSPECTED BACKFILLED UTILITIES. A MINIMUM OF 48 HOURS NOTICE IS REQUIRED PRIOR TO INSPECTIONS.
20. APPROVAL OF THIS PLAN BY THE CITY OF NEWTON ENGINEERING DIVISION IMPLIES THAT THE PLAN MEETS THE MINIMAL DESIGN STANDARDS OF THE CITY OF NEWTON. HOWEVER, THE ENGINEERING DIVISION MAKES NO REPRESENTATIONS AND ASSUMES NO RESPONSIBILITY FOR THE DESIGN(S) IN TERMS OF SUITABILITY FOR THE PARTICULAR SITE CONDITIONS OR OF THE FUNCTIONALITY OR PERFORMANCE OF ANY ITEMS CONSTRUCTED IN ACCORDANCE WITH THE DESIGN(S).
   THE CITY OF NEWTON ASSUMES NO LIABILITIES FOR DESIGN ASSUMPTIONS, ERRORS OR OMISSIONS BY THE ENGINEER OF RECORD.
21. THIS PLAN IS THE RESULT OF AN INSTRUMENT SURVEY DONE ON THE GROUND MAY 2019.
22. ANY PROPOSED WALLS BY OTHERS.
23. CONSTRUCTION FENCING AND SILT FENCING SHALL BE PLACED AROUND THE ENTIRE SITE, AS REQUIRED.
24. THE ENGINEER OF RECORD IS RESPONSIBLE FOR THE ON-SITE INSPECTION(S) OF ALL SUBSURFACE STRUCTURES. THIS INCLUDES BUT IS NOT LIMITED TO DRAINAGE, UTILITIES (INCLUDING SEWER PIPE SLOPE), ROOF LEADER COLLECTION SYSTEM, TRENCH DRAINS, MANHOLES, ETC. ENGINEER OF RECORD MUST ALSO CONDUCT "BOTTOM OF HOLE" INSPECTION(S) PRIOR TO SUBSURDFACE DRAINAGE SYSTEM(S) BEING INSTALLED.
25. PRIOR TO THE ENGINEERING DIVISION RECOMMENDING THAT A CERTIFICATE OF OCCUPANCY BE ISSUED, AN AS-BUILT PLAN MUST BE SUBMITTED. THE AS-BUILT PLAN MUST SHOW DIMENSIONAL TIES FROM FIXED POINTS (FOUNDATION CORNERS) TO ALL SUBSURFACE COMPONENTS AS WELL AS FINAL GRADING. THE AS-BUILT PLAN MUST BE STAMPED, SIGNED AND DATED BY THE ENGINEER OF RECORD.



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID-SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

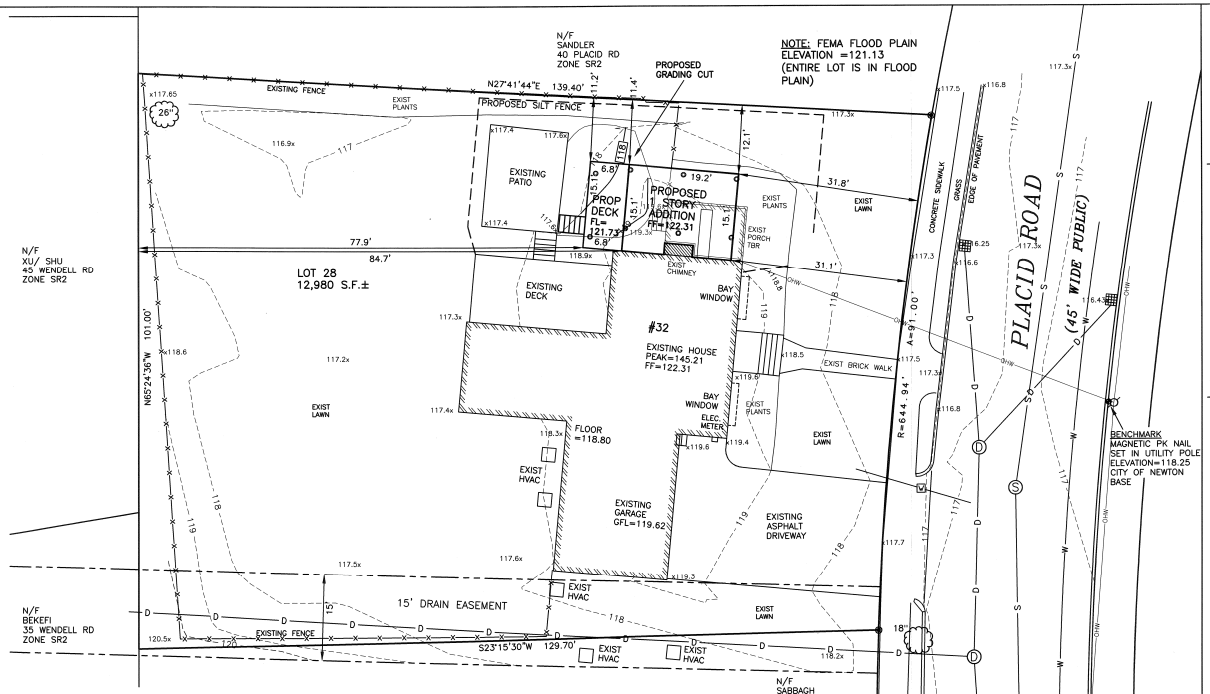
POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

FENCE: WOVEN WIRE, 14-1/2 GA. 6" MAX. MESH OPENING.

FILTER CLOTH: FILTER X, MIRAFI 100X, STABLINKA T140N OR APPROVED EQUAL.

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

SILT FENCE DETAIL
N.T.S.



FILL CALCULATIONS IN FLOOD PLAIN

PROPOSED STEPS
TREADS = (3.0' X 0.9' X 0.16") X 5 STEPS = 2.16 C.F.
RISERS = (3.0' X 0.66' X 0.083") X 5.2 STEPS = 0.85 C.F.
STRINGERS = (3.21 S.F. X 0.16') X 4 STRINGERS = 2.11 C.F.
RAILING = (PICKET+3" POST+BOTTOM RAIL) X 2 RAILINGS = 0.97 C.F.
6.11 C.F.

PROPOSED BOTTOM OF 2" X 8" DECK LEDGER
(121.13 -121.06) X 0.166' X 0.66' X 12 LEDERS = 0.09 C.F.

PROPOSED POST & CONC. BASE
A =((120.9-118.4) X 0.25 S.F.) + ((118.4-117.9) X 0.55 S.F.) = 1.03 C.F.
B =((120.9-119.0) X 0.25 S.F.) + ((119.0-118.5) X 0.55 S.F.) = 0.75 C.F.
C =((120.9-119.3) X 0.25 S.F.) + ((119.3-118.8) X 0.55 S.F.) = 0.98 C.F.
D =((120.9-119.0) X 0.25 S.F.) + ((119.0-118.5) X 0.55 S.F.) = 0.75 C.F.
E =((120.9-119.5) X 0.25 S.F.) + ((119.5-119.0) X 0.55 S.F.) = 0.63 C.F.
F =((120.9-119.5) X 0.25 S.F.) + ((119.5-119.0) X 0.55 S.F.) = 0.63 C.F.
G =((120.9-119.5) X 0.25 S.F.) + ((119.5-119.0) X 0.55 S.F.) = 0.63 C.F.
H =((120.9-119.0) X 0.25 S.F.) + ((119.0-118.5) X 0.55 S.F.) = 0.75 C.F.
3.53 C.F.

PROPOSED 2" X 8" PORCH BEAMS
(121.13 -120.30) X 0.166 X 0.66' X 12 BEAMS = 0.30 C.F.

PROPOSED 2" X 8" BRACES
18.67' X 0.166' X 0.66' X 4 BRACES = 8.18 C.F.

PROPOSED INSULATED BOX
(121.13-120.9) X 8.5' X 2.0' = 3.91 C.F.

PROPOSED LATTICE
PORCH:(121.13-119) X 34.3' X 0.021' = 1.53 C.F.
DECK: (121.13-113) X 27.3' X 0.021' = 1.76 C.F.
3.29 C.F.

TOTAL FILL IN FLOODPLAIN = 27.71 C.F. (1.03 C.Y.)

CUT CALCULATIONS IN FLOOD PLAIN

EXISTING PORCH TBR
FOUNDATION WALLS = (121.13-119.0) 12.7 S.F. = 27.05 C.F.

EXISTING STEPS TBR
TREADS = (3.2' X 0.9' X 0.16") X 3 TREADS = 1.38 C.F.
RISERS = (3.2' X 0.66' X 0.083') X 3 RISERS = 0.53 C.F.
STRINGERS = (1.80 S.F. X 0.16') X 3 STRINGERS = 0.90 C.F.
2.80 C.F.

EXISTING PORCH LATTICE TBR
(121.13-118.5) X 5.7' X 0.166' = 2.49 C.F.

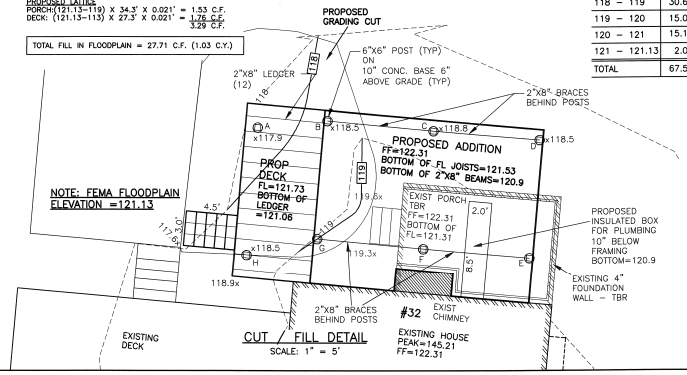
PART EXISTING FENCE - TBR
(121.13-118.5) X 5.7' X 0.166' = 2.49 C.F.

GRADING CUT
VOLUME = 34.90 C.F.

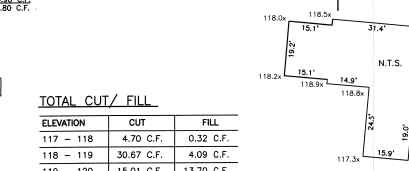
TOTAL CUT IN FLOODPLAIN = 67.58 C.F. (2.50 C.Y.)

TOTAL CUT/ FILL

ELEVATION	CUT	FILL
117 - 118	4.70 C.F.	0.32 C.F.
118 - 119	30.67 C.F.	4.09 C.F.
119 - 120	15.01 C.F.	13.70 C.F.
120 - 121	15.18 C.F.	6.92 C.F.
121 - 121.13	2.02 C.F.	2.68 C.F.
TOTAL	67.58 C.F.	27.71 C.F.



CUT / FILL DETAIL
SCALE: 1" = 5'



NOTES:
1. GRADES REFER TO LOWEST POINT WITHIN 6' OF BUILDING.
2. NOT INTENDED FOR F.A.R. CALCULATION.
3. AVERAGE GRADE SKETCH N.T.S.

AVERAGE GRADE CALCULATION:
[SEC 1.5.4(F)]
AVG = Σ[(E1+E2)/2] / P
AVG = 27,820.30 / 235.1 = 118.3

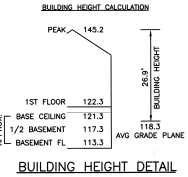
AVERAGE GRADE DETAIL
N.T.S.

IMPERVIOUS AREAS

	EXISTING	PROPOSED
HOUSE & STEPS	1,812 S.F.	1,972 S.F.
DRIVEWAY	800 S.F.	800 S.F.
WALKS/PATIOS/WALLS	319 S.F.	319 S.F.
	2,931 S.F.	3,091 S.F.

IMPERVIOUS INCREASE = 3,091 S.F. - 2,931 S.F. = 160 S.F.

BUILDING HEIGHT CALCULATION



BUILDING HEIGHT DETAIL
N.T.S.

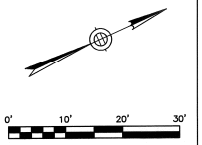
ZONING INFORMATION

ZONE: SR2
PLAN DATED: DECEMBER 8, 1952
DEED REFERENCE: BOOK 64297 PAGE 410

	EXISTING	PROPOSED	REQUIRED
BUILDINGS	1,752 S.F.	1,933 S.F.	
STRUCTURES	2,076 S.F.	2,360 S.F.	
DRIVE	800 S.F. ±	800 S.F. ±	
	2,876 S.F. ±	3,160 S.F. ±	
LOT COVERAGE	13.5%	14.9%	(30% MAX.)
OPEN SPACE	76% ±	76% ±	(50% MIN.)

ZONING COMPLIANCE DETERMINED BY MUNICIPALITY.
AREAS FOR F.A.R. CALCULATION PROVIDED BY ARCHITECT.

ESTABLISHED 1916
EMB
EVERETT M. BROOKS CO.
SURVEYORS & ENGINEERS
49 LEXINGTON STREET
WEST NEWTON, MA 02465
(617) 527-8750
info@everettbrooks.com



LEGEND

- UTILITY POLE
- WATER GATE
- HYDRANT
- GAS GATE
- SEWER MANHOLE
- DRAIN MANHOLE
- CATCH BASIN
- TREE
- TREE
- LIGHT POLE
- SIGN
- TBR — TO BE REMOVED
- TBA — TO BE ABANDONED
- 71.4 X — SPOT ELEVATION
- 71 — PROPOSED CONTOUR
- 71 — EXISTING CONTOUR
- D — DRAIN LINE
- W — WATER LINE
- S — SEWER LINE
- G — GAS LINE
- X — FENCE
- HEDGE
- TREE LINE

COMMONWEALTH OF MASSACHUSETTS MICHAEL S. KOSMO CIVIL No. 34495 REGISTERED PROFESSIONAL ENGINEER

COMMONWEALTH OF MASSACHUSETTS BRUCE BRADFORD No. 38376 REGISTERED PROFESSIONAL LAND SURVEYOR

SITE PLAN OF LAND IN NEWTON, MA

32 PLACID ROAD

SCALE: 1 IN.= 10 FT.
DATE: JUNE 21, 2021
DRAWN: ES
CHECK: BB & MSK

REVISIONS:

PROJECT NO. 25791