

**LEGEND**

|   |               |             |                  |
|---|---------------|-------------|------------------|
| ○ | UTILITY POLE  | BOW         | BOTTOM OF WALL   |
| □ | WATER GATE    | FG          | FINISHED GRADE   |
| ⊕ | HYDRANT       | SG          | SPOT GRADE       |
| ⊕ | GAS GATE      | THFI        | DEEP TEST HOLE   |
| ⊕ | SEWER MANHOLE | PTFI        | PERCOLATION TEST |
| ⊕ | CLEANOUT      | 71.4 X      | SPOT ELEVATION   |
| ⊕ | DRAIN MANHOLE | 71          | PROPOSED CONTOUR |
| ⊕ | CATCH BASIN   | 71          | EXISTING CONTOUR |
| ○ | TREE          | D           | DRAIN LINE       |
| ○ | LIGHT POLE    | W           | WATER LINE       |
| ○ | SIGN          | SS          | SEWER LINE       |
| ○ | TO BE REMOVED | G           | GAS LINE         |
| ○ | TBA           | X           | FENCE            |
| ○ | TOW           | TOP OF WALL | PROPOSED WALL    |

- NOTES:**
- ANY PROPOSED RETAINING WALL SHALL BE DESIGNED BY OTHERS. ANY PROPOSED RETAINING WALL IN SETBACK SHALL NOT EXCEED 4 FEET IN HEIGHT IN.
  - CONTRACTOR SHALL CONFIRM LOCATION OF DOWNSPOUTS PRIOR TO CARRYING OUT ANY DRAINAGE WORK.
  - SURFACE WATER SHALL BE DIVERTED AWAY FROM ALL SIDES OF FOUNDATION WALL.
  - IT IS THE GENERAL CONTRACTORS RESPONSIBILITY TO CONTACT THE ENGINEER OF RECORD FOR ALL INSPECTIONS OUTLINED IN NOTE 33 ON THIS SHEET.
  - CONTRACTOR TO ENSURE THAT THE BUILDING FOOTPRINT REPRESENTED ON THIS PLAN IS THE SAME AS THE PROPOSED ARCHITECTURAL / STRUCTURAL PLANS AND INCORPORATES ALL OVERHANGS, CANTILEVERS AND ANY COMPONENT THAT IS SUBJECT TO ZONING RESTRICTIONS. IF THIS IS FOUND NOT TO BE THE CASE THE CONTRACTOR MUST CONTACT THE ENGINEER / SURVEYOR AND REQUEST A REVISED PLAN WHICH MUST BE RESUBMITTED TO I.S.D. CITY OF NEWTON.
  - CONTRACTOR TO ENSURE ALL RAIN WATER FROM SPLASH BLOCKS (IF ANY) IS DIVERTED AWAY FROM BUILDING FOUNDATION AND DIVERTED AWAY FROM NEIGHBORING PROPERTIES.
  - CONTRACTOR TO ENSURE SEWER LINE IS PITCHED AT AN EQUAL SLOPE OF BETWEEN 2% AND 10% FROM HOUSE TO MAIN CONNECTION.
  - ANY TREE BEING REMOVED SHALL COMPLY WITH CITY OF NEWTON TREE ORDINANCE.

NOTE: THE EXISTING DRAIN LINE MUST BE CTD/D BOTH PRE AND POST CONNECTION FROM THE PROPERTY. AN INSPECTOR FROM THE ENGINEERING DIVISION MUST BE PRESENT AT THIS TIME.

NOTE: IT IS THE GENERAL CONTRACTORS RESPONSIBILITY TO CONTACT THE ENGINEER OF RECORD FOR ALL INSPECTIONS OUTLINED IN NOTE 35 ON THIS SHEET.

**AVERAGE GRADE PLANE (ALL UNITS IN FEET) #1**

| SEGMENT   | LEGTH | POINT 1 | POINT 2 | MEAN 1 & 2 | MEAN x LENGTH |
|---|-------|---------|---------|------------|---------------|
| 1   | 21.60 | 135.80  | 134.80  | 135.30     | 2,922.48      |
| 2   | 23.60 | 134.80  | 137.00  | 135.90     | 3,207.24      |
| 3   | 21.60 | 137.00  | 137.00  | 137.00     | 2,959.20      |
| 4   | 23.60 | 137.00  | 135.80  | 136.40     | 3,219.04      |
| SUM =   | 90.40 |         |         |            | 12,307.96     |
| SUM OF MEAN x LENGTH / SUM OF LENGTHS = AVERAGE GRADE PLANE = |       |         |         |            | 136.15        |

**AVERAGE GRADE PLANE (ALL UNITS IN FEET) #2**

| SEGMENT   | LEGTH | POINT 1 | POINT 2 | MEAN 1 & 2 | MEAN x LENGTH |
|---|-------|---------|---------|------------|---------------|
| 1   | 21.60 | 136.40  | 135.80  | 136.10     | 2,939.76      |
| 2   | 23.60 | 135.80  | 137.00  | 136.40     | 3,219.04      |
| 3   | 21.60 | 137.00  | 137.00  | 137.00     | 2,959.20      |
| 4   | 23.60 | 137.00  | 136.40  | 136.70     | 3,226.12      |
| SUM =   | 90.40 |         |         |            | 12,344.12     |
| SUM OF MEAN x LENGTH / SUM OF LENGTHS = AVERAGE GRADE PLANE = |       |         |         |            | 136.55        |

- NOTES:**
- INFORMATION SHOWN ON THIS PLAN IS THE RESULT OF A FIELD SURVEY PERFORMED BY PETER NOLAN & ASSOCIATES LLC AS OF 11/15/2020.
  - DEED REFERENCE: BOOK 75816, PAGE 433  
PLAN REFERENCE: PLAN BOOK 397, PLAN 38  
MIDDLESEX COUNTY SOUTH DISTRICT REGISTRY OF DEEDS
  - THIS PLAN IS NOT INTENDED TO BE RECORDED.
  - I CERTIFY THAT THE DWELLING SHOWN IS NOT LOCATED WITHIN A SPECIAL FLOOD HAZARD ZONE. IT IS LOCATED IN ZONE X, ON FLOOD HAZARD BOUNDARY MAP NUMBER 25017C0554E, IN COMMUNITY NUMBER: 250208, DATED 6/4/2010.
  - THIS PLAN DOES NOT SHOW ANY UNRECORDED OR UNWRITTEN EASEMENTS WHICH MAY EXIST. A REASONABLE AND DILIGENT ATTEMPT HAS BEEN MADE TO OBSERVE ANY APPARENT USES OF THE LAND; HOWEVER THIS NOT CONSTITUTE A GUARANTEE THAT NO SUCH EASEMENTS EXIST.
  - FIRST FLOOR ELEVATIONS ARE TAKEN AT THRESHOLD.
  - NO RESPONSIBILITY IS TAKEN FOR ZONING TABLE AS PETER NOLAN & ASSOCIATES LLC ARE NOT ZONING EXPERTS. TABLE IS TAKEN FROM TABLE PROVIDED BY LOCAL ZONING ORDINANCE. CLIENT AND/OR ARCHITECT TO VERIFY THE ACCURACY OF ZONING ANALYSIS.
  - THE ELEVATIONS SHOWN ARE BASED ON CITY OF NEWTON DATUM.
  - ZONING INFORMATION: MR-1 (MULTI-RESIDENCE-1), LOT WAS CREATED BEFORE 1953

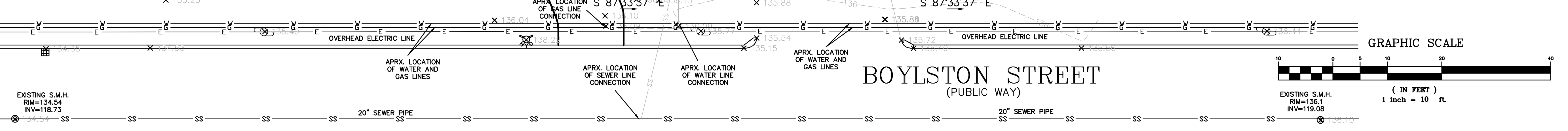
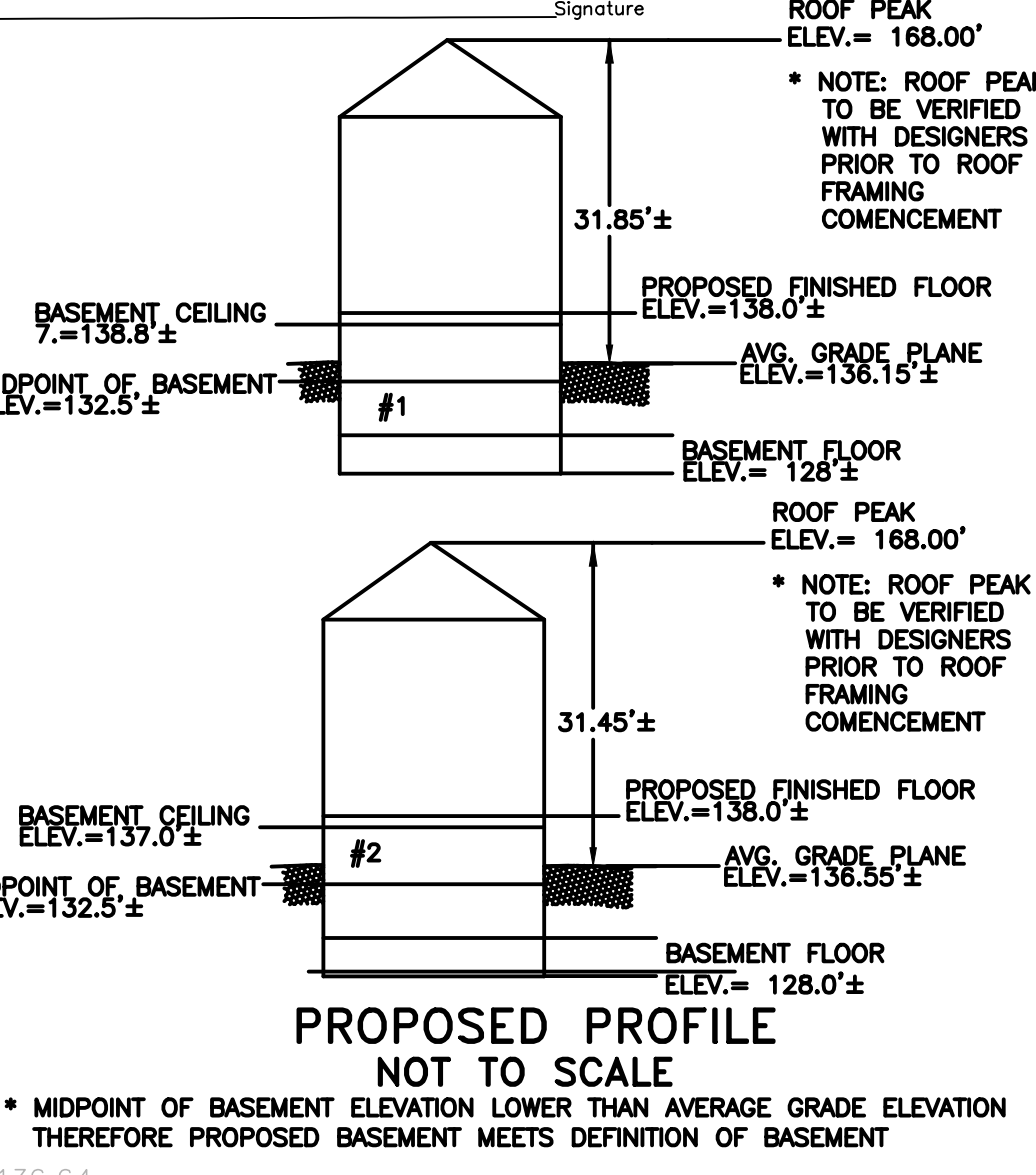
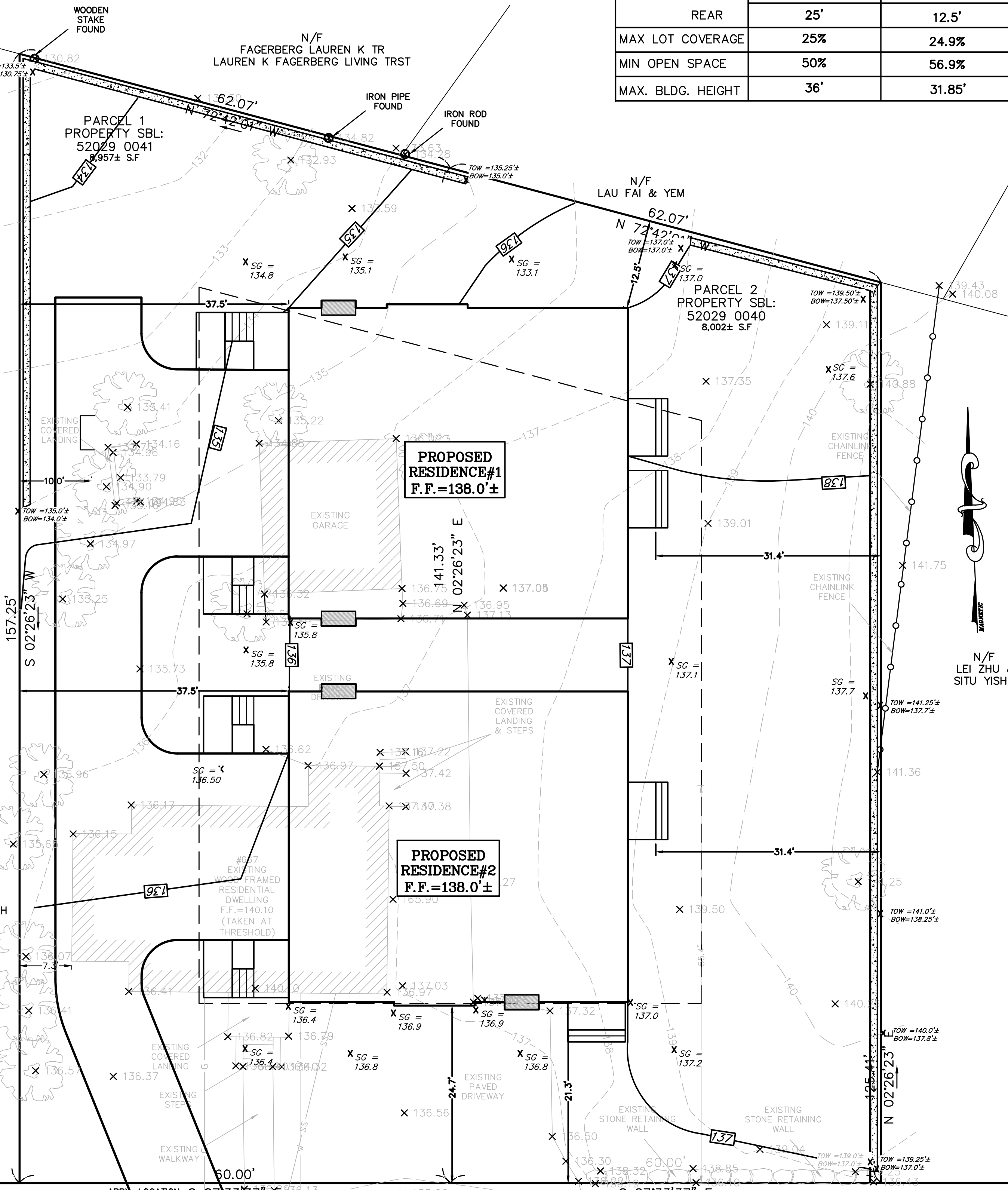
**EXISTING:**  
BUILDING 1134 GARAGE 400 DRIVEWAY 1484 WALKWAY/STEPS/LANDING 174  
TOTAL EXISTING IMPERVIOUS AREA: 3,192 SF

**PROPOSED:**  
BUILDINGS 4098.4 COVERED PORCHES 124 DECKS 204 DRIVEWAY 2591.5  
FIRE PLACE 20 WALLS 275 WALKWAY 128  
TOTAL PROPOSED IMPERVIOUS AREA: 7,440.9 SF

**ZONING LEGEND**  
ZONING DISTRICT: MULTI-RESIDENCE 1 (BEFORE 12/7/1953)

| ATTACHED DWELLINGS | REQUIRED   | PROPOSED   |
|--------------------|------------|------------|
| MIN. AREA          | 7,000 S.F. | ±16,959 SF |
| MIN. FRONTAGE      | 70'        | 120'       |
| MIN. YARD FRONT    | 25'        | 21.3'      |
| SIDE               | 25'        | 31.4'      |
| REAR               | 25'        | 12.5'      |
| MAX LOT COVERAGE   | 25%        | 24.9%      |
| MIN OPEN SPACE     | 50%        | 56.9%      |
| MAX. BLDG. HEIGHT  | 36'        | 31.85'     |

- NOTES:**
- ELEVATIONS REFER TO CITY OF NEWTON DATUM.
  - THE LOCATIONS AND DEPTHS 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.
  - MASSACHUSETTS STATE LAW REQUIRES UTILITY NOTIFICATION AT LEAST THREE BUSINESS DAYS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CALL 800-SAVE AT 1-888-344-7233 IN ORDER TO COMPLY WITH STATE LAW.
  - 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. REFER TO NOTE 29 FOR DETAILS. NOTE A TRENCH PERMIT MUST BE OBTAINED PRIOR TO ANY EXCAVATION BEING CARRIED OUT.
  - PROPOSED SEWER PIPE SHALL BE 6" PVC SDR 35.
  - PROPOSED WATER SERVICE SHALL BE 1" TYPE K COPPER.
  - THIS PLAN IS THE RESULT OF AN INSTRUMENT SURVEY DONE ON THE GROUND 10/21/20.
  - ALL WORK SHALL BE SUBJECT TO THE INSPECTION BY AND APPROVAL OF THE CITY ENGINEER.
  - 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 NOTICE OF THE PROPOSED EXCAVATION TO THE FOLLOWING:
    - SUCH PUBLIC UTILITY COMPANIES AS SUPPLY GAS, ELECTRICITY, AND TELEPHONE SERVICE IN THE CITY.
    - SUCH PRIVATE COMPANIES AS PROVIDE CABLE TELEVISION SERVICE IN THE CITY.
    - 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.
  - THE CONTRACTOR SHALL PROVIDE CITY OF NEWTON POLICE OFFICERS FOR THE DIRECTION AND CONTROL OF TRAFFIC, AS REQUIRED BY THE CITY ENGINEER.
  - NO WORK SHALL BE PERFORMED UNTIL THE NECESSARY PERMITS ARE OBTAINED FROM THE CITY OF NEWTON PUBLIC WORKS DEPARTMENT.
  - ALL TRENCHES IN PAVED STREETS SHALL BE TEMPORARILY PATCHED WITH PAYMENT OF EXISTING PAVEMENT THICKNESS OR AS DIRECTED BY THE CITY ENGINEERING INSPECTOR. PATCHES SHALL BE MAINTAINED UNTIL THE PERMANENT PATCHING IS COMPLETED.
  - WARNING SIGNS SHALL CONFORM TO PAGE 66 OF THE CITY OF NEWTON GENERAL CONSTRUCTION DETAILS.
  - ALL TOPSOIL, SUBSOIL OR IMPERVIOUS SOIL MUST BE EXCAVATED AND REMOVED BELOW THE LEADING SYSTEM AND TO A DISTANCE 5' LATERALLY IN ALL DIRECTIONS BEYOND THE SIDES OF THE GALLEYS, BACKFILL AS REQUIRED WITH A CLEAN GRANULAR SAND, FREE FROM ORGANIC MATTER AND DELETERIOUS SUBSTANCES. SAND SHALL HAVE A PERMEATION RATE OF 2 MINUTES PER FOOT.
  - IN CASES WHERE LEDGE OR BouldERS ARE ENCOUNTERED, SPRUHAN ENGINEERING, P.C. WILL NOT BE RESPONSIBLE FOR THE AMOUNT OF ROCK ENCOUNTERED.
  - 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.
  - THE ROOF RAINFALL FROM THE ROOF SURFACES SHALL BE COLLECTED BY GUTTERS AND DIRECTED TO THE STORM WATER DRAINAGE SYSTEM.
  - PRIOR TO AN OCCUPANCY PERMIT BEING ISSUED, AN AS-BUILT PLAN MUST BE SUBMITTED TO THE ENGINEERING DIVISION IN BOTH DIGITAL FORMAT AND HARD COPY. THE PLAN SHOULD SHOW ALL UTILITIES AND FINAL GRADES, TIES TO ALL GATES, VALVES, CLEAN-OUTS, CONNECTION POINTS AT MAINS, STRUCTURE ACCESS/MAINTENANCE COVERS, ANY EASEMENTS AND FINAL GRADING.
  - THE APPLICANT WILL HAVE TO APPLY FOR A STREET OPENING & UTILITIES CONNECTION PERMITS AS WELL AS A SIDEWALK CROSSING PERMIT AND A TRENCH PERMIT WITH THE DPW.
  - THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE DESIGN ENGINEER FOR INSPECTIONS OR AS-BUILT LOCATIONS. PETER NOLAN & ASSOCIATES, LLC WILL NOT PROVIDE AS-BUILT CERTIFICATION TO UNINSPECTED BACKFILLED UTILITY CONNECTIONS.
  - ALL PROPOSED PVC PIPES UNDER PAVING OR CONCRETE WITH LESS THAN 30" OF COVER MUST BE ENCASED IN CONCRETE. (SEE PAGE 21, CITY OF NEWTON GENERAL CONSTRUCTION DETAILS).
  - EXISTING WATER & SEWER SERVICES SHALL BE CUT AND CAPPED AT THE MAIN AND BE COMPLETELY REMOVED FROM THE SITE, REPLACED AS SPECIFIED AND PROPERLY BACKFILLED. THE ENGINEERING DIVISION MUST INSPECT THIS WORK. FAILURE TO HAVE THIS WORK INSPECTED MAY RESULT IN THE DELAY OF ISSUANCE OF THE UTILITY CONNECTION PERMIT.
  - THE CONTRACTOR SHALL NOTIFY THE ENGINEERING DIVISION 48 HOURS IN ADVANCE AND SCHEDULE AN APPOINTMENT TO HAVE THE DRAINAGE SYSTEM, WATER & SEWER SERVICES INSPECTED. THE SYSTEM & UTILITIES MUST BE FULLY EXPOSED FOR THE INSPECTOR. ONCE THE INSPECTOR IS SATISFIED, THE SYSTEM & UTILITIES MAY THEN BE BACKFILLED.
  - THE EXISTING CONTOURS OF THE LAND ARE NOT TO BE ALTERED BY MORE THAN THREE (3) FEET AS A RESULT OF THE PLACEMENT OR REMOVAL OF SOIL, LOAM, CLAY, GRAVEL, OR STONE, OR OTHER SOLID MATERIAL UNLESS A PROPOSED RETAINING WALL OR SWALE IS INSTALLED AFTER IT IS APPROVED BY BOTH CITY OF NEWTON ENGINEERING DEPARTMENT & CITY OF NEWTON I.S.D.
  - NO WORK IS ALLOWED WITHIN A CITY OF NEWTON RIGHT-OF-WAY BETWEEN NOVEMBER 15TH AND APRIL 15TH. IF AN EMERGENCY EXISTS OR THERE ARE ESTIMATING CIRCUMSTANCES, APPLICANT MAY REQUEST PERMISSION FROM THE CITY ENGINEER. IF ALLOWED, SPECIAL CONSTRUCTION REQUIREMENTS WILL BE REQUIRED, AND AS SUCH IT IS RECOMMENDED THAT THE APPLICANT OR APPLICANTS REPRESENTATIVE CONTACT THE CITY OF NEWTON ENGINEERING DEPARTMENT PRIOR TO START OF WORK FOR CLARIFICATION.
  - AT THE END OF CONSTRUCTION, ALL DRAINAGE STRUCTURES ARE TO BE CLEANED OF SALT, STONES AND OTHER DEBRIS.
  - DURING CONSTRUCTION, THE EROSION CONTROL MEASURES SHALL BE INSPECTED ONCE PER WEEK AND WITHIN 24 HOURS OF ANY STORM EVENT GENERATING MORE THAN 1/2" OF RAINFALL. THE EROSION CONTROL MEASURES SHALL BE CLEANED REGULARLY AND ADJUSTED IF NECESSARY TO ENSURE THAT NO SOIL OR DEBRIS LEAVES THE SITE.
  - WITH EXCEPTION OF GAS UTILITY SERVICES, ALL UTILITY TRENCHES WITHIN ANY CITY OF NEWTON RIGHT-OF-WAY WILL BE BACKFILLED WITH TYPE E (EXCAVATABLE) CONTROLLED DENSITY FILL, AS SPECIFIED BY THE CITY OF NEWTON ENGINEERING SPECIFICATIONS.
  - ALL CONSTRUCTION ACTIVITIES WITHIN THE CITY OF NEWTON RIGHT-OF-WAY MUST FULLY COMPLY WITH ALL OF CITY OF NEWTON CONSTRUCTION SPECIFICATIONS AS WELL AS 801 CMR 21.00 AND 22.00.
  - ALL NEW SEWER SERVICE AND/OR STRUCTURES SHALL BE PRESSURE TESTED OR VIDEOGRADED AFTER FINAL INSTALLATION IS COMPLETE. METHOD OF FINAL INSPECTION SHALL BE DETERMINED SOLELY BY THE CONSTRUCTION INSPECTOR FROM THE CITY ENGINEERING DIVISION. ALL SEWER MANHOLES SHALL BE BACKFILLED TO THE CITY CONSTRUCTION STANDARDS & SPECIFICATIONS. THE SEWER SERVICE WILL NOT BE ACCEPTED UNTIL ONE OF THE TWO METHODS STATED ABOVE IS COMPLETED. ALL TESTING MUST BE WITNESSED BY A REPRESENTATIVE OF THE ENGINEERING DIVISION. A CERTIFICATE OF OCCUPANCY WILL NOT BE RECOMMENDED UNTIL THIS TEST IS COMPLETED AND A WRITTEN REPORT IS RECEIVED BY THE CITY ENGINEER.
  - ALL SITUATION CONTROL NEEDS TO BE INSTALLED PRIOR TO ANY CONSTRUCTION. THE CONTRACTOR SHALL CONTACT THE CITY ENGINEER'S OFFICE FOR APPROVAL PRIOR TO COMMENCEMENT.
  - ALL TRENCH EXCAVATION CONTRACTORS SHALL COMPLY WITH MGL CHAPTER 82A, TRENCH EXCAVATION SAFETY REQUIREMENTS, TO PROTECT THE GENERAL PUBLIC FROM UNAUTHORIZED ACCESS TO UNATTENDED TRENCHES. A TRENCH EXCAVATION PERMIT IS REQUIRED.
  - APPROVAL OF THIS PLAN BY 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 REPRESENTATION 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 ASSUMPTION, ERRORS OR OMISSIONS BY THE ENGINEER OF RECORD.
  - PER CITY OF NEWTON ORDINANCE NOLB-42, COUNCIL ITEM #251-18, BUILDING SEWER, WATER SERVICE PIPE & SIDEWALK/CURB REPLACEMENT ORDINANCE: THE APPLICANT IS REQUIRED TO INSTALL/REPAIR SIDEWALK & CURB ALONG THE ENTIRE FRONTAGE. THIS SHALL INCLUDE APPROPRIATE TRANSITION TO ADJACENT CURBING & WALKWAYS, INCLUDING ACCESSIBLE CURB CUTS & OTHER ACCESS AS REQUIRED. THE ENGINEERING CONSTRUCTION INSPECTOR MAKES A DETERMINATION, BASED AS THE MATERIAL & MANNER OF CONSTRUCTION OF THE EXISTING SIDEWALK & CURB, THAT THE EXISTING SIDEWALK & CURB HAS THE ABILITY TO BE RE-SET OR REUSED WITHOUT REPLACEMENT.
  - 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 subsurface drainage system(s) being installed. CONTRACTOR TO NOTIFY ENGINEER BEFORE BACKFILL OR SIGN OFF CANNOT OCCUR WITHOUT RE-EXCAVATION.
  - 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.



**Spruhan Engineering, P.C.**  
80 JEWETT ST, (SUITE 2)  
NEWTON, MA 02458  
Tel: 617-816-0722  
Email: edmond@spruhaneng.com

**667 BOYLSTON STREET,  
NEWTON,  
MASSACHUSETTS**

**CIVIL PLAN**

**REVISION BLOCK**

| BY | DESCRIPTION   | DATE     |
|----|---------------|----------|
| CM | ZONING REVIEW | 01/14/21 |
| CM | ZONING REVIEW | 03/08/21 |



**SCALE 1"=10'**

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SHEET:  
**1 OF 1**

|              |            |
|--------------|------------|
| DATE:        | 01/13/2021 |
| DRAWN BY:    | C.M.       |
| CHECKED BY:  | E.S.       |
| APPROVED BY: | E.S.       |

**PROPOSED  
CIVIL PLAN**