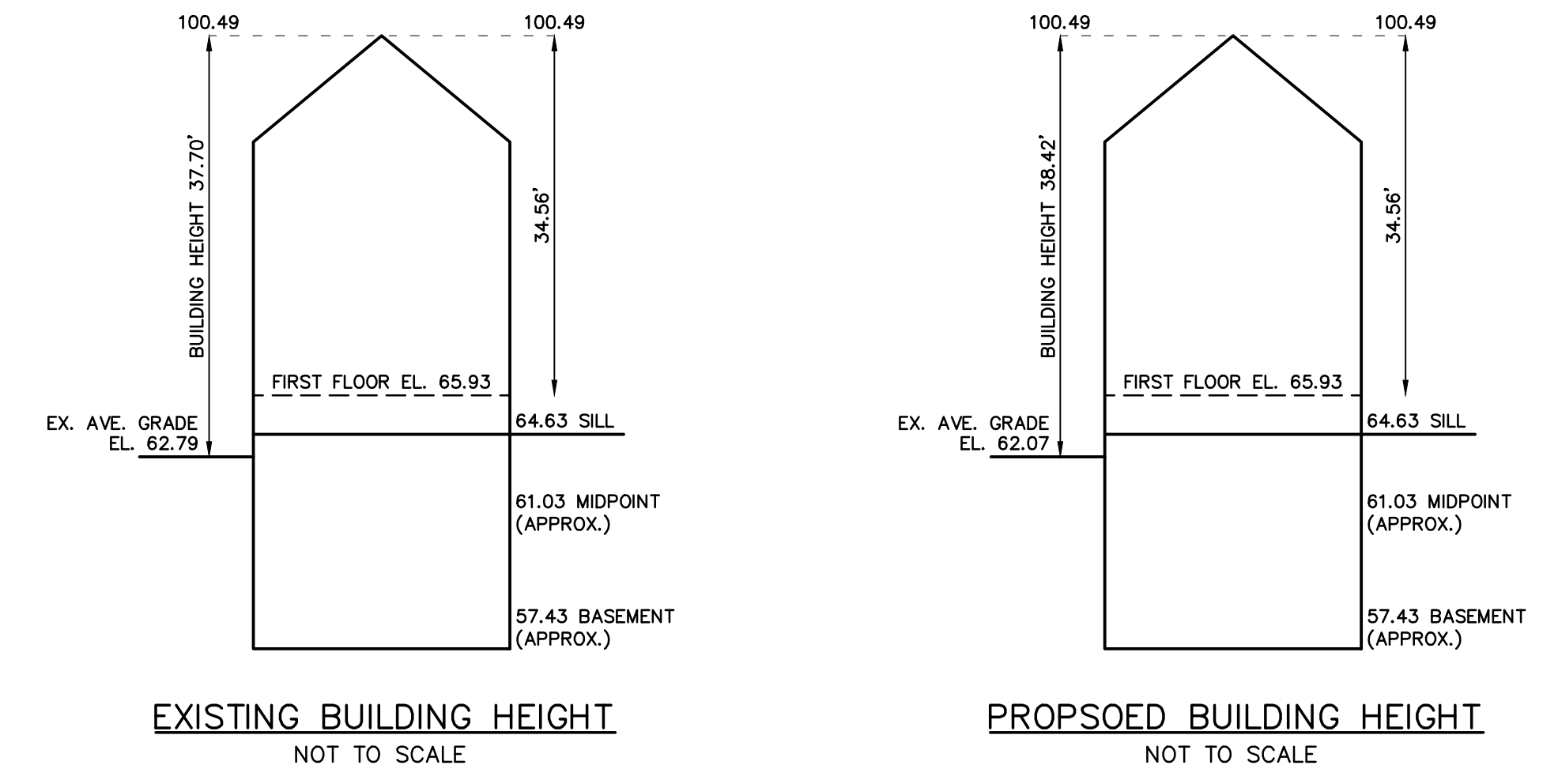
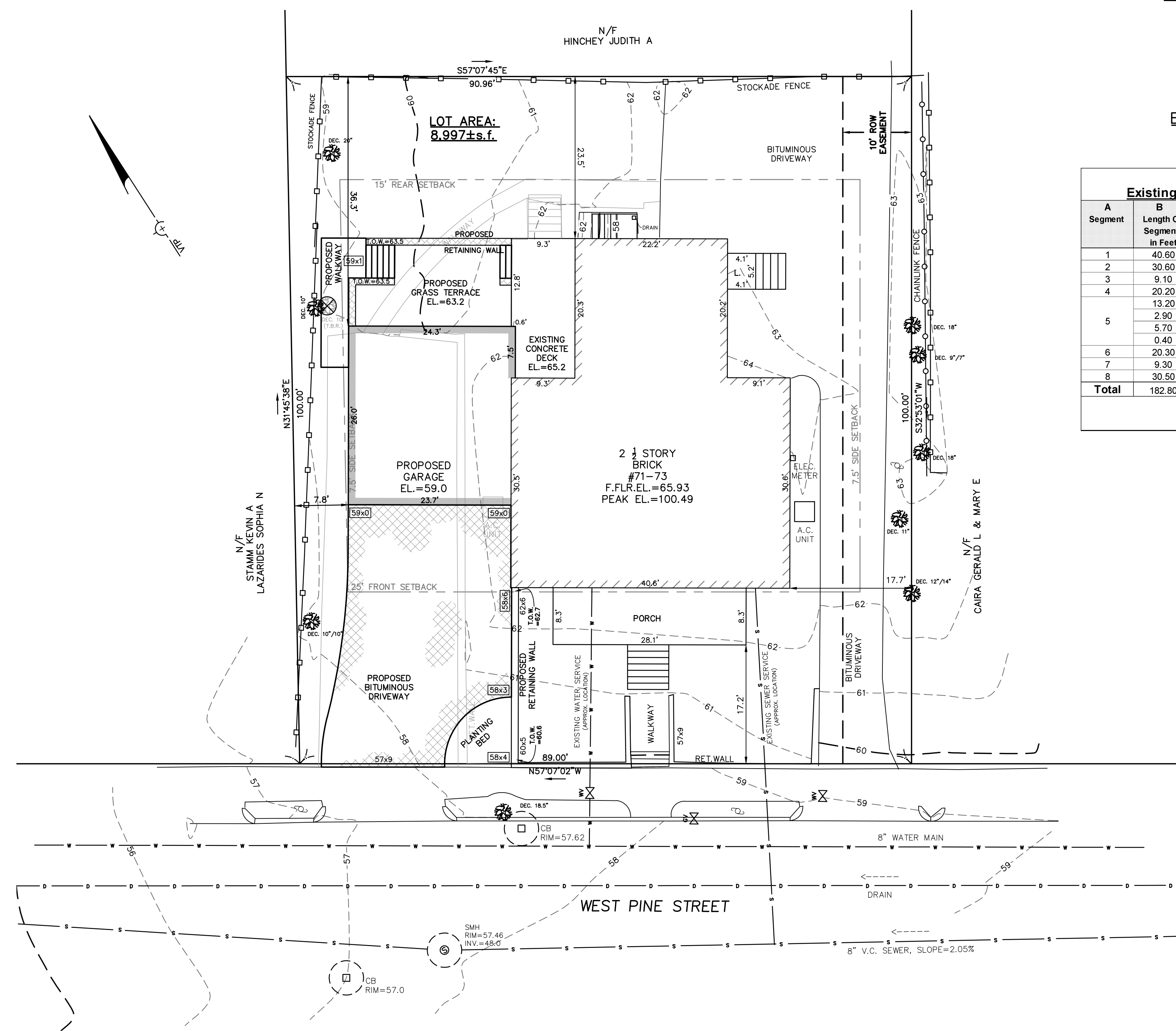
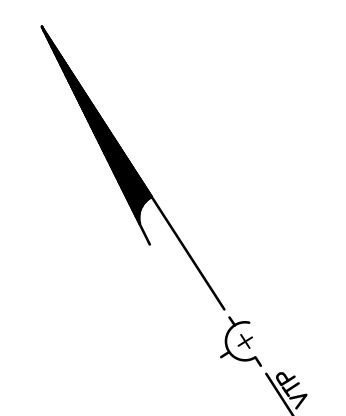


221112\_topo.dwg (2-2020)

**LEGEND**

|                                      |                        |
|--------------------------------------|------------------------|
| BUILDING                             |                        |
| PROPERTY LINE W/<br>BEARING DISTANCE | S81°56'34"E<br>116.23' |
| CONTOUR                              | - 70 -                 |
| STOCKADE FENCE                       |                        |
| CHAINLINK FENCE                      |                        |
| PICKET FENCE                         |                        |
| SEWER LINE                           | S                      |
| DRAIN LINE                           | D                      |
| WATER LINE                           | W                      |
| GAS LINE                             | G                      |
| GAS VALVE                            |                        |
| WATER VALVE                          |                        |
| DRAIN MANHOLE                        |                        |
| SEWER MANHOLE                        |                        |
| CATCH BASIN                          |                        |
| UTILITY POLE                         |                        |
| LIGHT POLE                           |                        |
| DECIDUOUS TREE                       | DEC. 22'               |
| CONIFEROUS TREE                      | CON. 12'               |
| FIRE HYDRANT                         |                        |



**Length Weighted Mean  
Existing Conditions Average Grade Calculation**

| A Segment    | B Length Of Segment in Feet | C Height of High Point of Segment | D Height of Low Point of Segment | E=(C+D)/2 Average Segment Height | F=BxE                   |
|--------------|-----------------------------|-----------------------------------|----------------------------------|----------------------------------|-------------------------|
| 1            | 40.60                       | 62.63                             | 62.28                            | 62.46                            | 2535.67 Sq. Ft.         |
| 2            | 30.60                       | 63.01                             | 62.20                            | 62.61                            | 1915.71 Sq. Ft.         |
| 3            | 9.10                        | 63.69                             | 62.95                            | 63.32                            | 576.21 Sq. Ft.          |
| 4            | 20.20                       | 63.69                             | 62.74                            | 63.22                            | 1276.94 Sq. Ft.         |
| 5            | 13.20                       | 62.59                             | 62.27                            | 62.43                            | 824.08 Sq. Ft.          |
|              | 2.90                        | 57.86                             | 57.78                            | 57.82                            | 167.68 Sq. Ft.          |
|              | 5.70                        | 61.95                             | 58.00                            | 59.98                            | 341.86 Sq. Ft.          |
| 6            | 20.30                       | 65.40                             | 65.40                            | 65.40                            | 1327.62 Sq. Ft.         |
| 7            | 9.30                        | 65.40                             | 65.40                            | 65.40                            | 608.22 Sq. Ft.          |
| 8            | 30.50                       | 61.92                             | 61.28                            | 61.60                            | 1878.80 Sq. Ft.         |
| <b>Total</b> | <b>182.80</b>               |                                   |                                  |                                  | <b>11477.54 Sq. Ft.</b> |

Total Column F / Total Column B = Average Grade  
**Average Grade: 62.79'**

**Length Weighted Mean  
Proposed Conditions Average Grade Calculation**

| A Segment    | B Length Of Segment in Feet | C Height of High Point of Segment | D Height of Low Point of Segment | E=(C+D)/2 Average Segment Height | F=BxE                   |
|--------------|-----------------------------|-----------------------------------|----------------------------------|----------------------------------|-------------------------|
| 1            | 40.60                       | 62.63                             | 62.28                            | 62.46                            | 2535.67 Sq. Ft.         |
| 2            | 30.60                       | 63.01                             | 62.20                            | 62.61                            | 1915.71 Sq. Ft.         |
| 3            | 9.10                        | 63.69                             | 62.95                            | 63.32                            | 576.21 Sq. Ft.          |
| 4            | 20.20                       | 63.69                             | 62.74                            | 63.22                            | 1276.94 Sq. Ft.         |
| 5            | 13.20                       | 62.59                             | 62.27                            | 62.43                            | 824.08 Sq. Ft.          |
|              | 2.90                        | 57.86                             | 57.78                            | 57.82                            | 167.68 Sq. Ft.          |
|              | 5.70                        | 61.95                             | 58.00                            | 59.98                            | 341.86 Sq. Ft.          |
| 6            | 20.30                       | 65.20                             | 65.20                            | 65.20                            | 1323.56 Sq. Ft.         |
| 7            | 8.70                        | 65.20                             | 65.20                            | 65.20                            | 567.24 Sq. Ft.          |
| 8            | 7.50                        | 65.20                             | 65.20                            | 65.20                            | 489.00 Sq. Ft.          |
| 9            | 24.30                       | 63.20                             | 63.20                            | 63.20                            | 1535.76 Sq. Ft.         |
| 10           | 26.00                       | 58.70                             | 57.60                            | 58.15                            | 1511.90 Sq. Ft.         |
| 11           | 23.70                       | 58.90                             | 58.90                            | 58.90                            | 1385.93 Sq. Ft.         |
| 12           | 12.00                       | 59.00                             | 58.90                            | 58.95                            | 707.40 Sq. Ft.          |
| <b>Total</b> | <b>245.20</b>               |                                   |                                  |                                  | <b>15193.69 Sq. Ft.</b> |

Total Column F / Total Column B = Average Grade  
**Average Grade: 61.96'**

**IMPERVIOUS AREA CALCULATION**

|                              | EXISTING           | PROPOSED           |
|------------------------------|--------------------|--------------------|
| BUILDING, PORCH              | 1,921.1s.f.        | 2,540.9s.f.        |
| DRIVEWAY                     | 2,947.4s.f.        | 2,614.3s.f.        |
| RETAINING WALLS              | 137.7s.f.          | 114.5s.f.          |
| WALKWAY, LANDINGS, PADS, ETC | 338.6s.f.          | 305.6s.f.          |
| DECK/TERRACE                 | 187.8s.f.          | 183.4s.f.          |
| <b>TOTAL</b>                 | <b>5,532.6s.f.</b> | <b>5,758.7s.f.</b> |

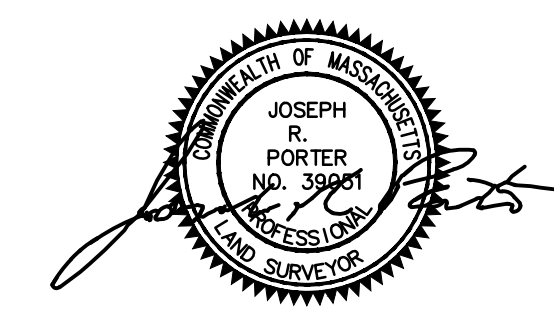
INCREASE IN IMPERVIOUS AREA: 226.1s.f.  
 LOT AREA: 8,997.0s.f.  
 4% OF LOT AREA (OR 400s.f. MAX.): 359.9s.f.  
 226.1s.f. < 359.9s.f. ---> DRAINAGE NOT REQUIRED

**ZONING CHART**  
 NEWTON, MASSACHUSETTS  
 ZONE: SR-3 (OLD) SUBMISSION: PROPOSED

| REGULATION      | REQUIRED  | EXISTING   | PROPOSED |
|-----------------|-----------|------------|----------|
| LOT AREA        | 7,000s.f. | 8,997±s.f. | N/C      |
| LOT FRONTAGE    | 70.0'     | 89.0'      | N/C      |
| FRONT SETBACK   | 25.0'     | 17.2' *    | N/C      |
| SIDE SETBACK    | 7.5'      | 17.7'      | 7.8'     |
| REAR SETBACK    | 15.0'     | 23.5'      | N/C      |
| BUILDING HEIGHT | 36.0'     | 38.22' *   | 38.53' * |
| AVERAGE GRADE   | -         | 62.27      | 61.96    |
| LOT COVERAGE    | 30.0%     | 21.4%      | 28.2%    |
| OPEN SPACE      | 50.0%     | 43.8% *    | 40.7% *  |

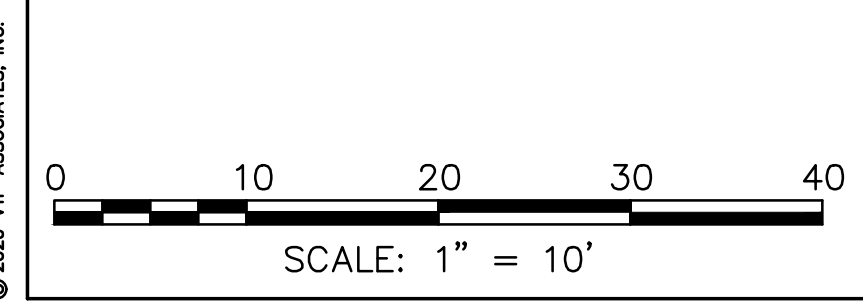
\*DOES NOT MEET REQUIREMENTS

**TOPOGRAPHIC SITE PLAN**  
 NEWTON, MASSACHUSETTS  
 SHOWING EXISTING CONDITIONS AT  
 #71-73 WEST PINE STREET  
 SCALE: 1in.=10ft. DATE: JULY 18, 2021



PROJECT: 221112  
**VTP ASSOCIATES**  
 INC.

LAND SURVEYORS - CIVIL ENGINEERS.  
 132 ADAMS STREET 2ND FLOOR SUITE 3  
 NEWTON, MA 02456  
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