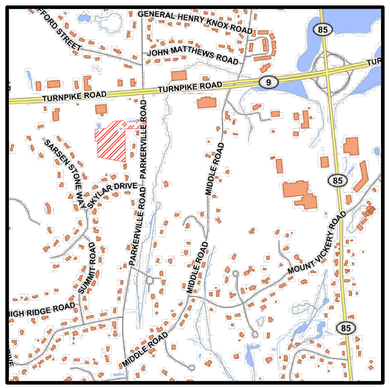
# SITE PLAN OF LAND
# AT 250 TURNPIKE ROAD

IN

## SOUTHBOROUGH, MASSACHUSETTS




LOCUS MAP

### ZONING COMPLIANCE TABLE

THE SITE IS LOCATED IN THE RESIDENCE A ZONING DISTRICT. THE FOLLOWING TABLE COMPARES THE RESIDENCE A ZONING REQUIREMENTS AND DIMENSIONS PROPOSED AT THIS SITE:

| DIMENSION | REQUIREMENT | PROPOSED |
|---|---|---|
| MIN. LOT AREA | 43,560 | 226,047 S.F. |
| MIN. FRONTAGE | 150' | 150.14' |
| MIN. FRONT YARD | 35' | 242'(UNIT 2 TO PARKERVILLE RD) |
| MIN. SIDE YARD | 25' | 2'(UNIT 1) |
| MIN. REAR YARD | 50' | 24'(UNIT 31) |
| MAX. FLOOR AREA RATIO | 0.18 | 0.36 |
| MAX. BUILDING HEIGHT | 35' | 34' |

PROPOSED SCOPE:
RESIDENTIAL:
- TWO BEDROOM UNITS: 28
- THREE BEDROOM UNITS: 4
- TOTAL UNITS: 32
- TOTAL BEDROOMS: 68

OFF-STREET PARKING:
PARKING SPACES PROVIDED – RESIDENTIAL 75
PARKING SPACES PROVIDED
- GARAGES 32
- INDIVIDUAL DRIVEWAYS 32
- SURFACE SPACES 11

TOTAL: 75

OWNER & APPLICANT:

FD 250 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MASSACHUSETTS 01772

CLIENT NUMBER: 502
JOB NUMBER: 245–502
DRAWING : 250TURNPIKECURRENT.dwg

PREPARED BY

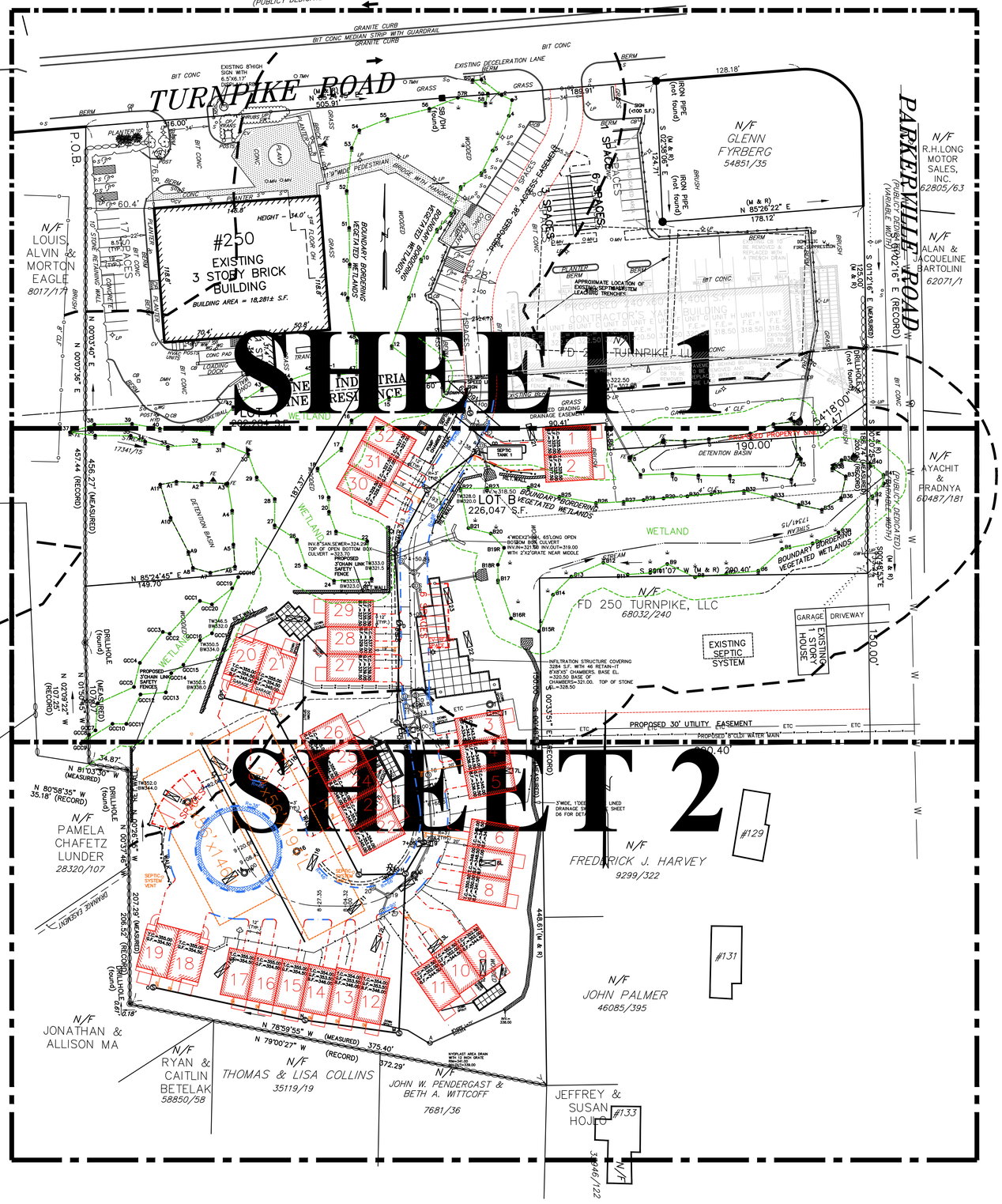
EXPEDITED ENGINEERING, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MASSACHUSETTS 01772
TELEPHONE (508) 399-9993
EMAIL: james@expeditedengineers.com

DATE:
MAY 28, 2023
REVISED NOVEMBER 20, 2024
REVISED JANUARY 31, 2025
REVISED JULY 25, 2025

COMMONWEALTH OF MASSACHUSETTS
JAMES L. TETREAULT
CIVIL
No. 38548
PROFESSIONAL ENGINEER

### SHEET DIRECTORY


| | |
|---|---|
| TITLE SHEET | (THIS SHEET) |
| KEY SHEET | |
| EXISTING CONDITIONS PLANS (UNCHANGED) | E1 – E2 |
| SITE LAYOUT PLANS | S1 – S2 |
| GRADING & DRAINAGE PLANS | G1 – G2 |
| UTILITY PLANS | U1 – U2 |
| EROSION & SEDIMENT CONTROL PLANS | ESC1 – ESC2 |
| LANDSCAPE PLAN, LIGHTING PLAN | L1, L2 |
| DETAIL SHEETS | D1 – D6 |
| PLAN AND PROFILE SHEET | P1 |




NOTES:

1) THE PROPOSED UNITS WILL ALL BE LOCATED ON LOT B. AT THE CONCLUSION OF REVIEW BY THE ZONING BOARD OF APPEALS, A REVISED ANR PLAN WITH THIS LOT LAYOUT WILL BE SUBMITTED TO THE PLANNING BOARD.
2) THE APPLICANT AND OWNER, FD 250 TURNPIKE, LLC, PROPOSES TO CONSTRUCT 32 TOWNHOUSE STYLE RENTAL UNITS UNDER THE AUSPICES OF MGL CHAPTER 40B. 25% OF THE UNITS WILL QUALIFY AS AFFORDABLE UNDER STATE GUIDELINES.
3) A TOTAL OF 75 PARKING SPACES WILL BE CREATED, AMONG UNIT GARAGES, INDIVIDUAL UNIT DRIVEWAYS AND 11 SPACES OFF THE CURB. THIS IS 2.34 SPACES PER UNIT.
4) LESSEES WILL ACCESS THIS SITE THROUGH A 28 FOOT WIDE DRIVEWAY EASEMENT THROUGH THE EXISTING PARKING AREA ON LOT A. THIS ACCESS WILL ENTER ONTO ROUTE 9 AT AN EXISTING DRIVEWAY ACCESS AT A POINT IN THE MIDDLE OF AN EXISTING DECELERATION LANE.

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

COMMONWEALTH OF MASSACHUSETTS
JAMES L. TETREAULT
CIVIL
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*Professional Engineers & Erosion Control Specialists*
118 Turnpike Road, Suite 300, Southborough, MA 01772
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| CLT. NO. | JOB NO. |
|---|---|
| 502 | 245-502 |
| DATE: APRIL 15, 2024 | DWG NO. 250TURNPIKECURRENT |

REVISIONS

| DATE: | DESCRIPTION |
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| 11/20/24 | FROM SINGLE BUILDING TO TOWNHOUSES |
| 1/31/25 | TOWN REVIEW |
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SCALE: 1 INCH = 50 FEET
FEET 0 25 50 100 150
METERS 0 25 50

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OWNER & APPLICANT:
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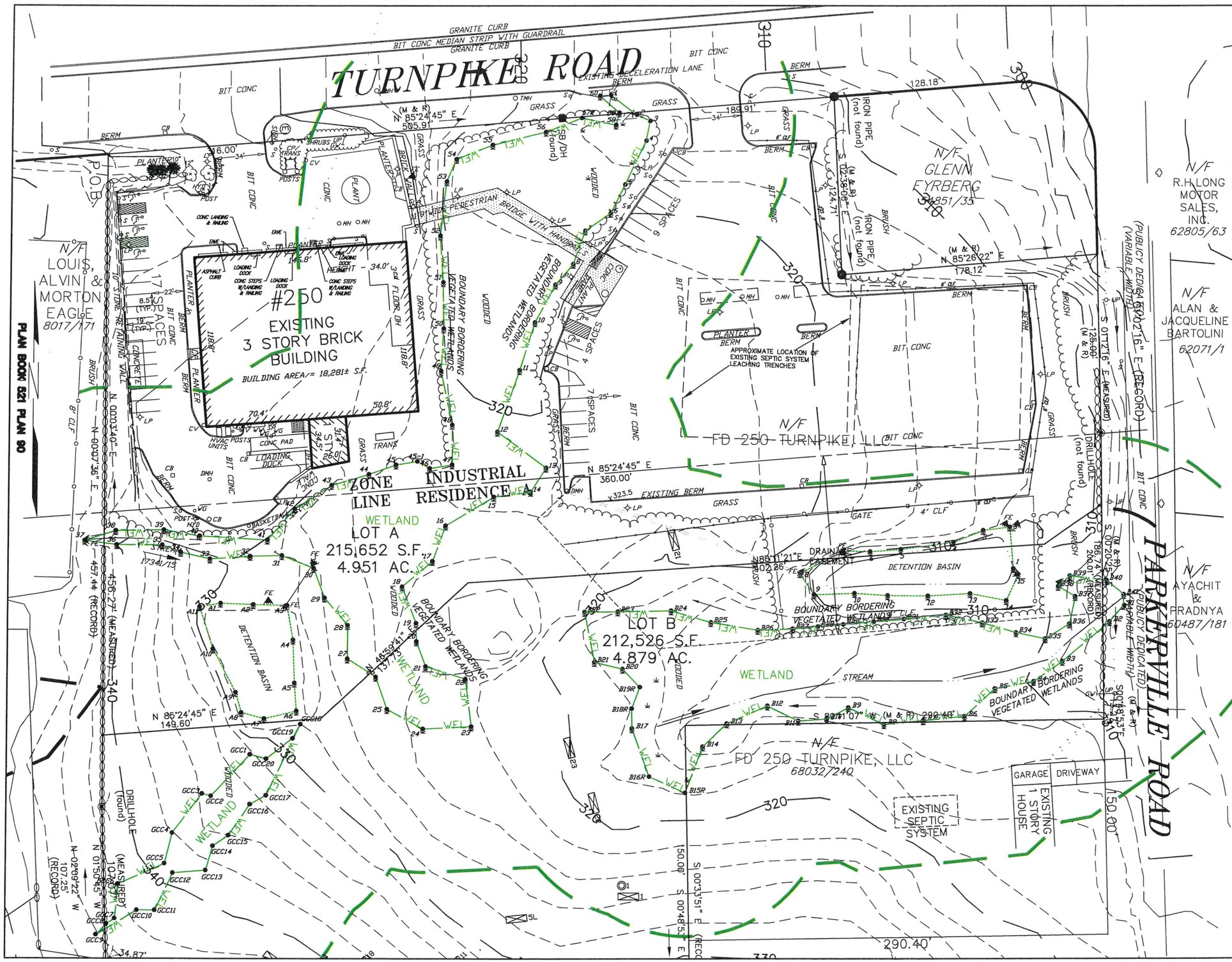
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

KEY SHEET




KEY

- 320 — 2' CONTOUR
- 320 — 10' CONTOUR
- EXISTING EDGE OF PAVEMENT
- UTILITY POLE
- OHW — OVERHEAD WIRES
- WEL WEL WEL — WETLAND EDGE
- 100' BUFFER ZONE EDGE
- STONE WALL
- EXISTING TREE LINE
- OFFICIAL DEEP OBSERVATION HOLE
- OFFICIAL PERCOLATION TEST

NOTES:

1) THE DEED TO THE PROPERTY SHOWING FD 250 TURNPIKE, LLC AS THE OWNER IS RECORDED AT BOOK 67212 PAGE 69 AT THE WORCESTER DISTRICT REGISTRY OF DEEDS.
2) THE PROPERTY BOUNDARIES, TOPOGRAPHY AND EXISTING FEATURE SHOWN ON THIS PLAN ARE THE WORK PRODUCT OF CONTROL POINT ASSOCIATES, INC. THE LOT DIVISION SHOWN ON THIS PLAN, WAS CREATED WITH THE RECORDING OF AN APPROVAL NOT REQUIRED PLAN OF LAND AT PLAN BOOK 964 PLAN 51.
3) THE BOUNDARIES OF WETLAND RESOURCE AREAS SHOWN ON THIS PLAN WERE CONFIRMED BY AN ORDER OF RESOURCE AREA DELINEATION ISSUED TO THE APPLICANT FOR WORK ON LOT A UNDER DEP FILE#290-1091 AND RECORDED AT THE WORCESTER DISTRICT REGISTRY OF DEEDS AT BOOK 69428 PAGE 113.

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____


AZIMUTH LAND DESIGN, LLC
*Professional Engineers & Erosion Control Specialists*
118 Turnpike Road, Suite 200, Southborough, MA 01772
Telephone (508)-455-0137 jamest@azimuthlanddesign.co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FEET 0 15 30 60 90

METERS 0 15 30

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EXISTING CONDITIONS E1


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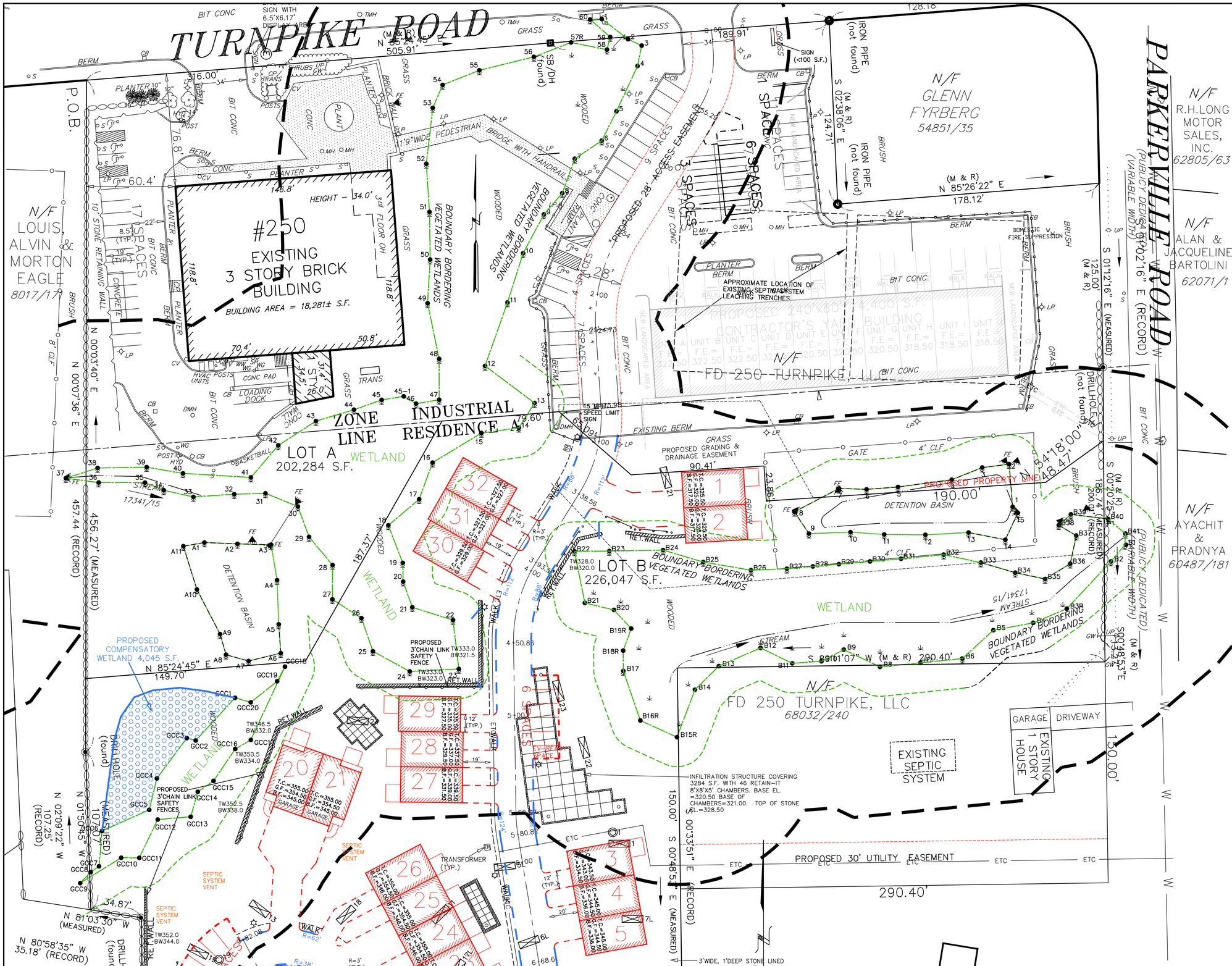
EXISTING CONDITIONS E2

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- STONE WALL
- PROPOSED EDGE OF PAVEMENT, MAIN DRIVE
- PROPOSED EDGE OF PAVEMENT, INDIVIDUAL UNIT'S DRIVE
- PROPOSED LIMIT OF WORK

NOTES:

1) UNITS #'S 1–17 AND 22–32 MEASURE 24 FEET WIDE AND 42 FEET DEEP. UNITS #'S 18–21 28.17 FEET WIDE AND 45 FEET DEEP.
2) ALL PROPOSED RETAINING WALLS ARE TO BE MADE OF CONIGLIARO BLOCK 2'X2'X4' PIECES.
3) THE PROPOSED CONTRACTOR'S YARD BUILDING AND EXISTING SELF–STORAGE BUILDING ON LOT A ARE SHOWN FOR REFERENCE BUT THEY ARE NOT PART OF THIS PROJECT.
4) EACH INDIVIDUAL DRIVEWAY IS 12 FEET WIDE.
5) DRIVEWAYS WITH SIDEWALK BETWEEN THE GARAGE AND CURB ALL MEASURE AT LEAST 23 FEET FROM GARAGE TO CURB. ON THE SIDE OF THE MAIN DRIVE WITH NO SIDEWALK, INDIVIDUAL DRIVEWAYS MEASURE AT LEAST 19 FEET LONG.

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

COMMONWEALTH OF MASSACHUSETTS
JAMES L TETREAULT
CIVIL
No. 38548
PROFESSIONAL ENGINEER


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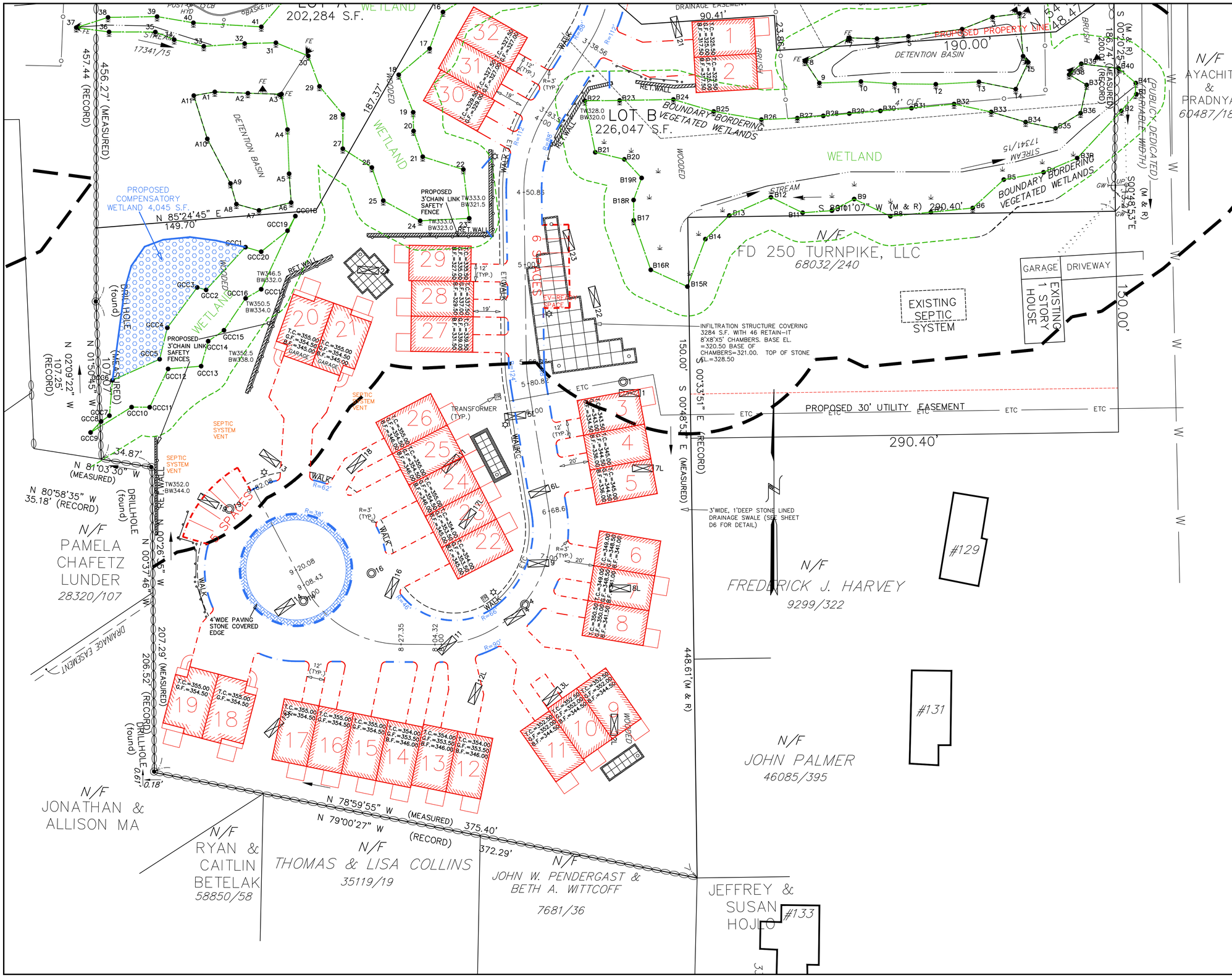
SITE LAYOUT S1

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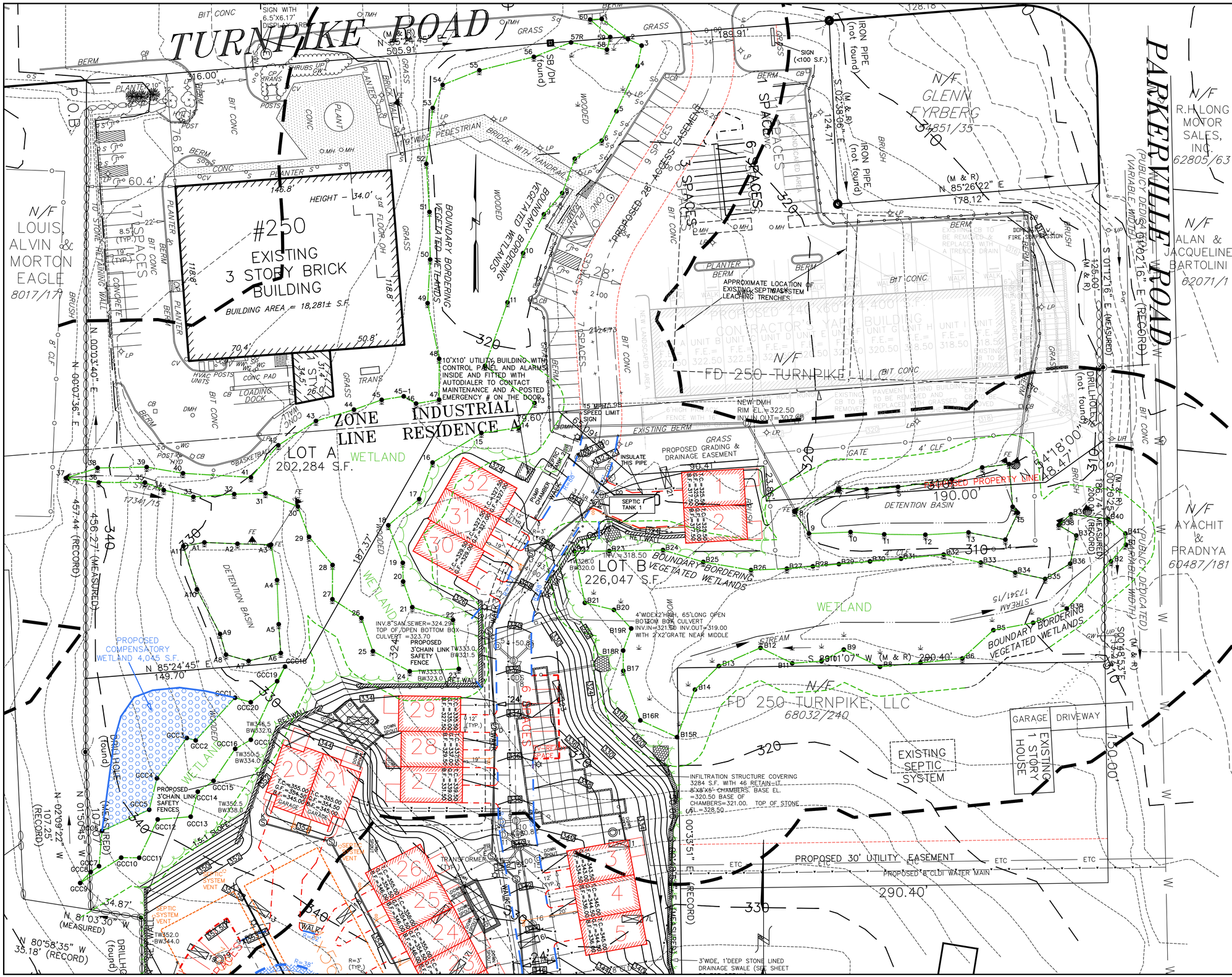


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- 340 — PROPOSED ELEVATION CONTOUR
- PROPOSED CATCH BASIN
- PROPOSED DRAIN MANHOLE
- PROPOSED SEWER MANHOLE
- PROPOSED HYDRANT
- W — W — PROPOSED WATER MAIN

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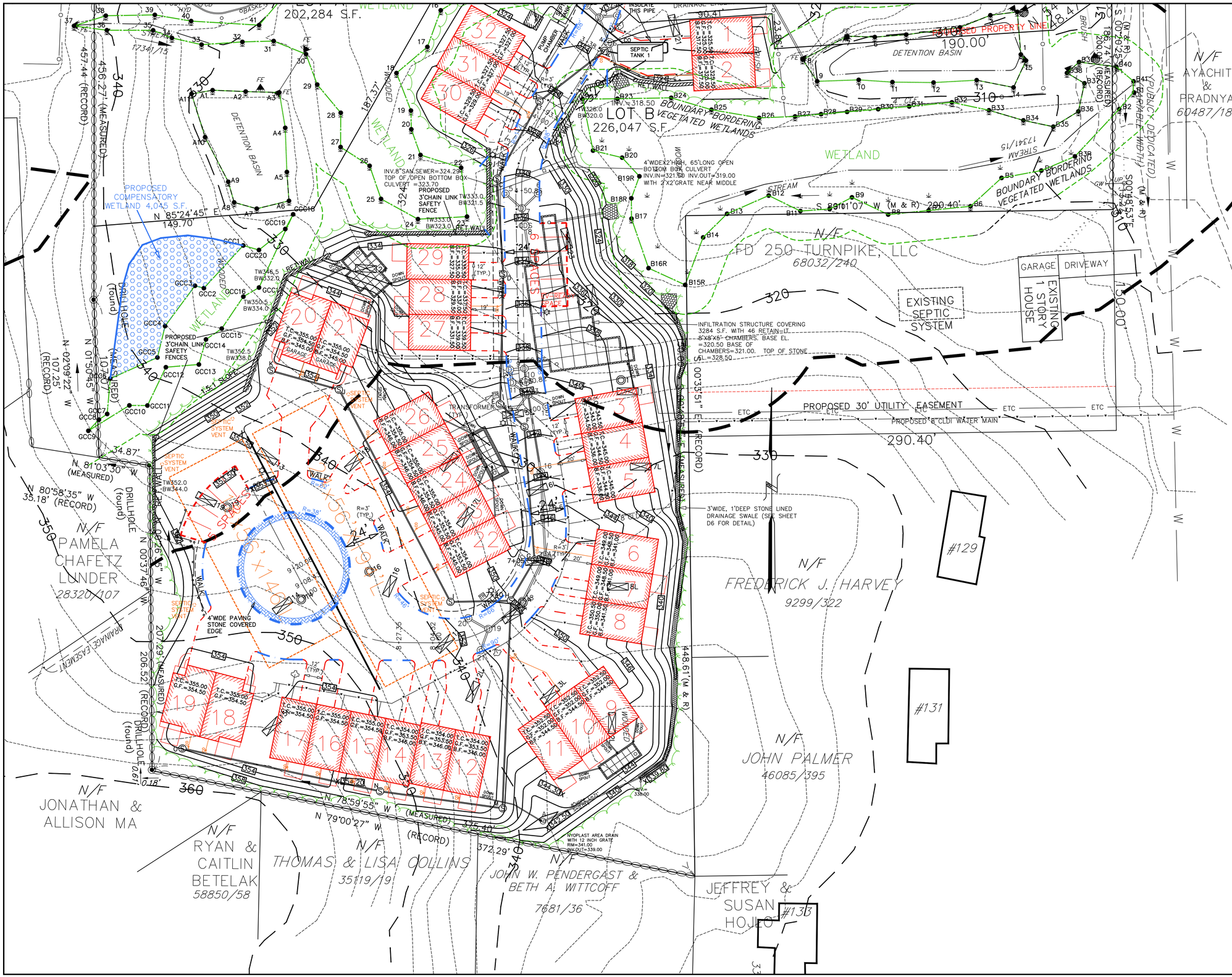
GRADING & DRAINAGE PLAN G1

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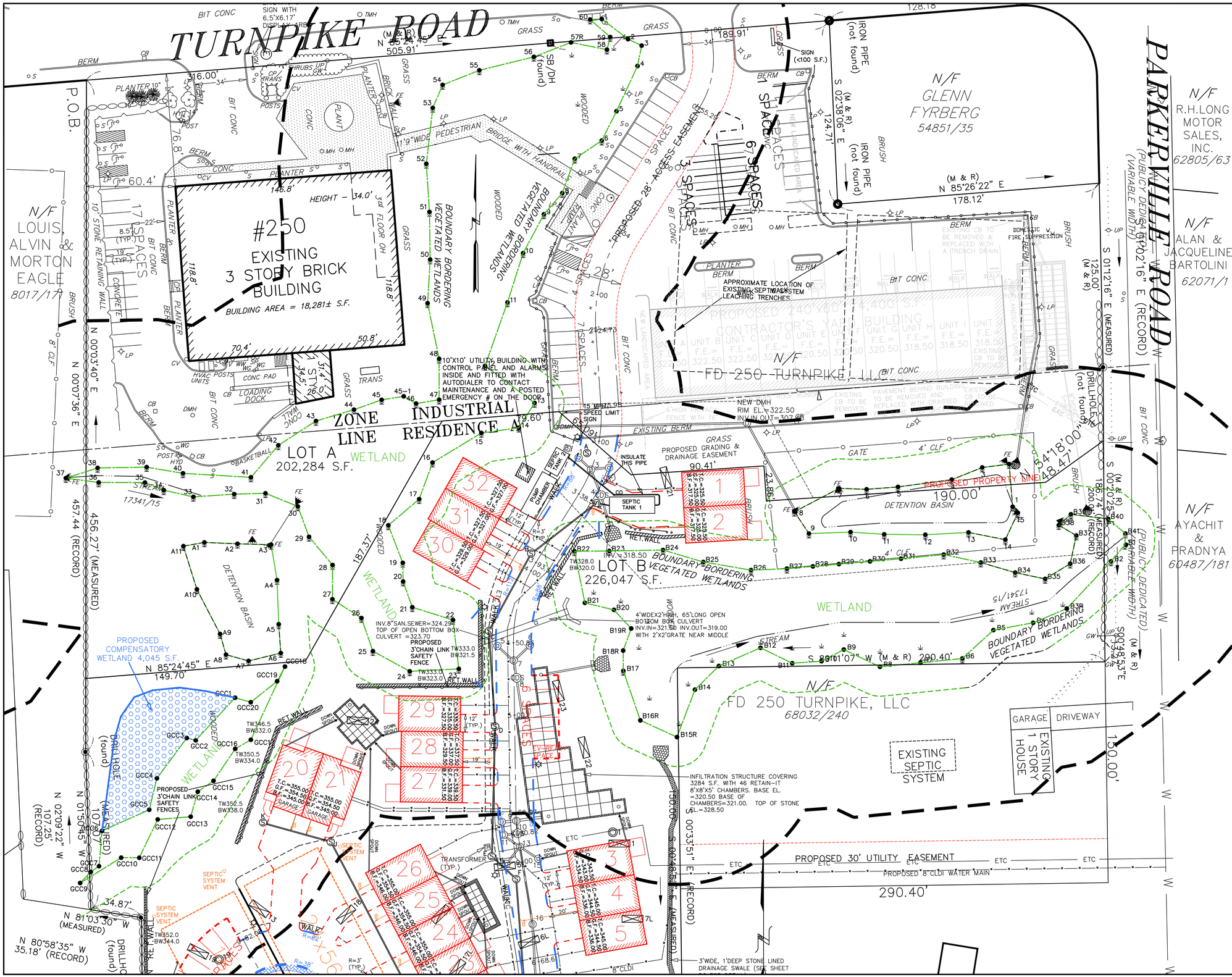
GRADING & DRAINAGE PLAN G2

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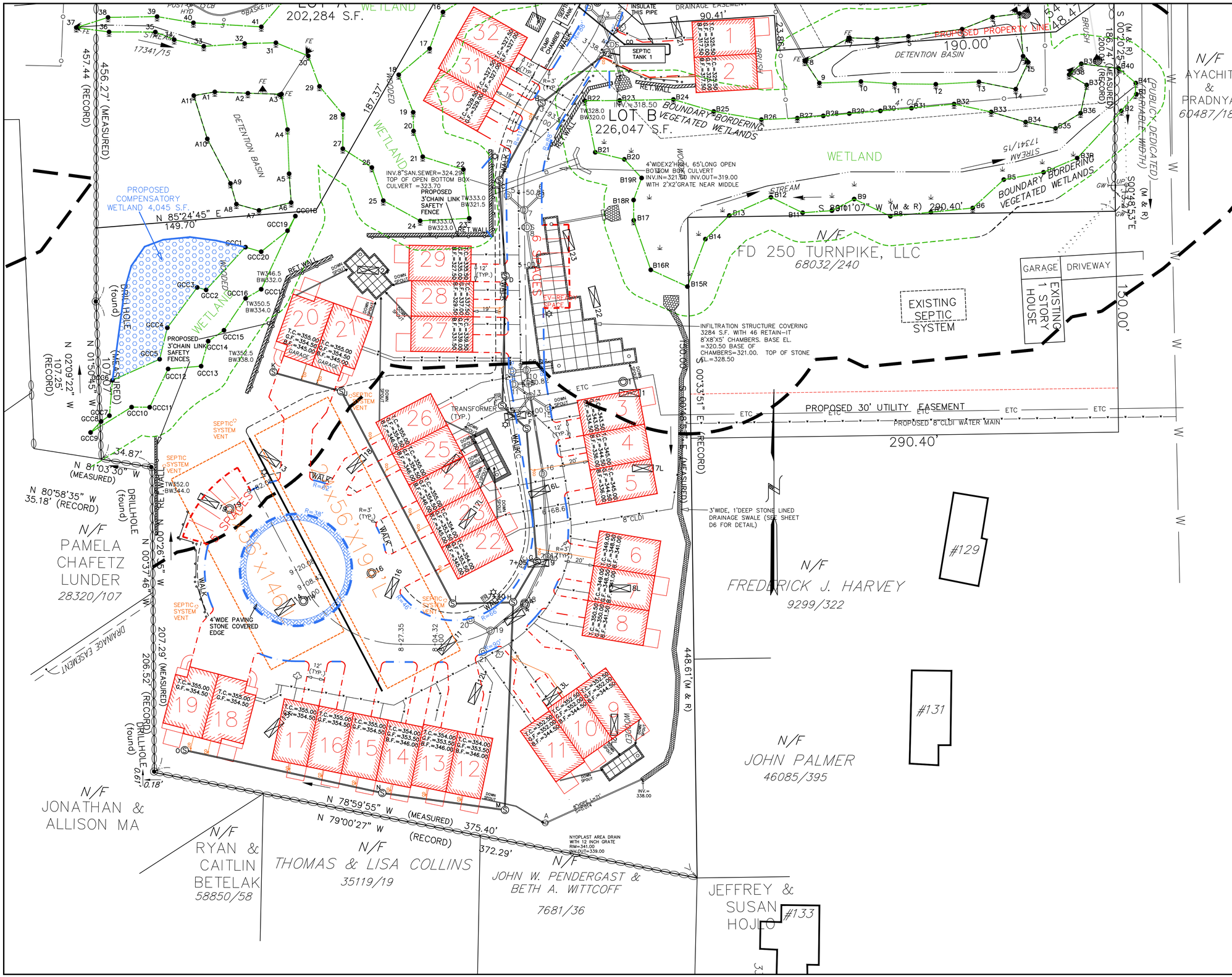
UTILITY PLAN U1

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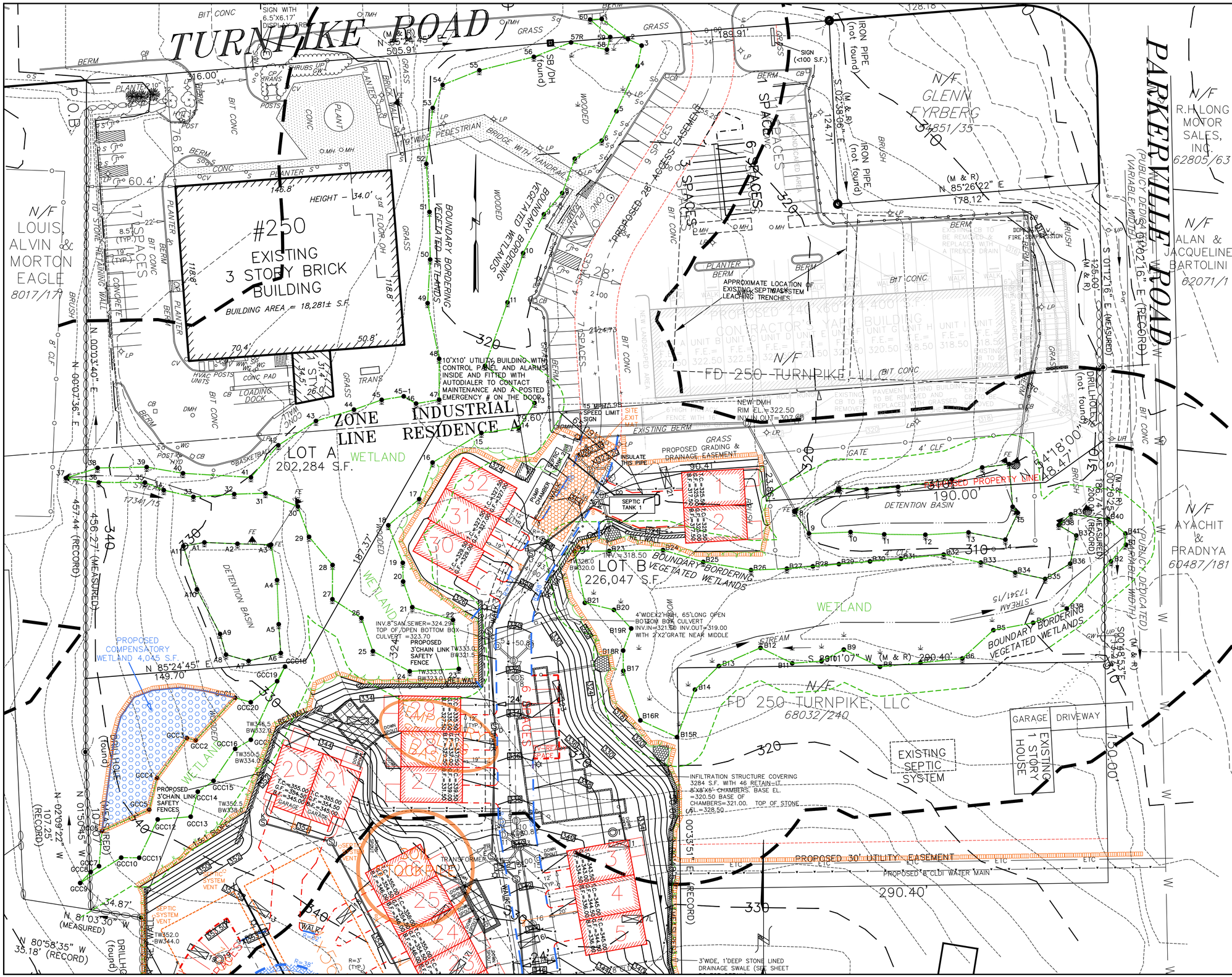
UTILITY PLAN U2

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- PROPOSED WATER MAIN
- PROPOSED SEDIMENT CONTROL BARRIER

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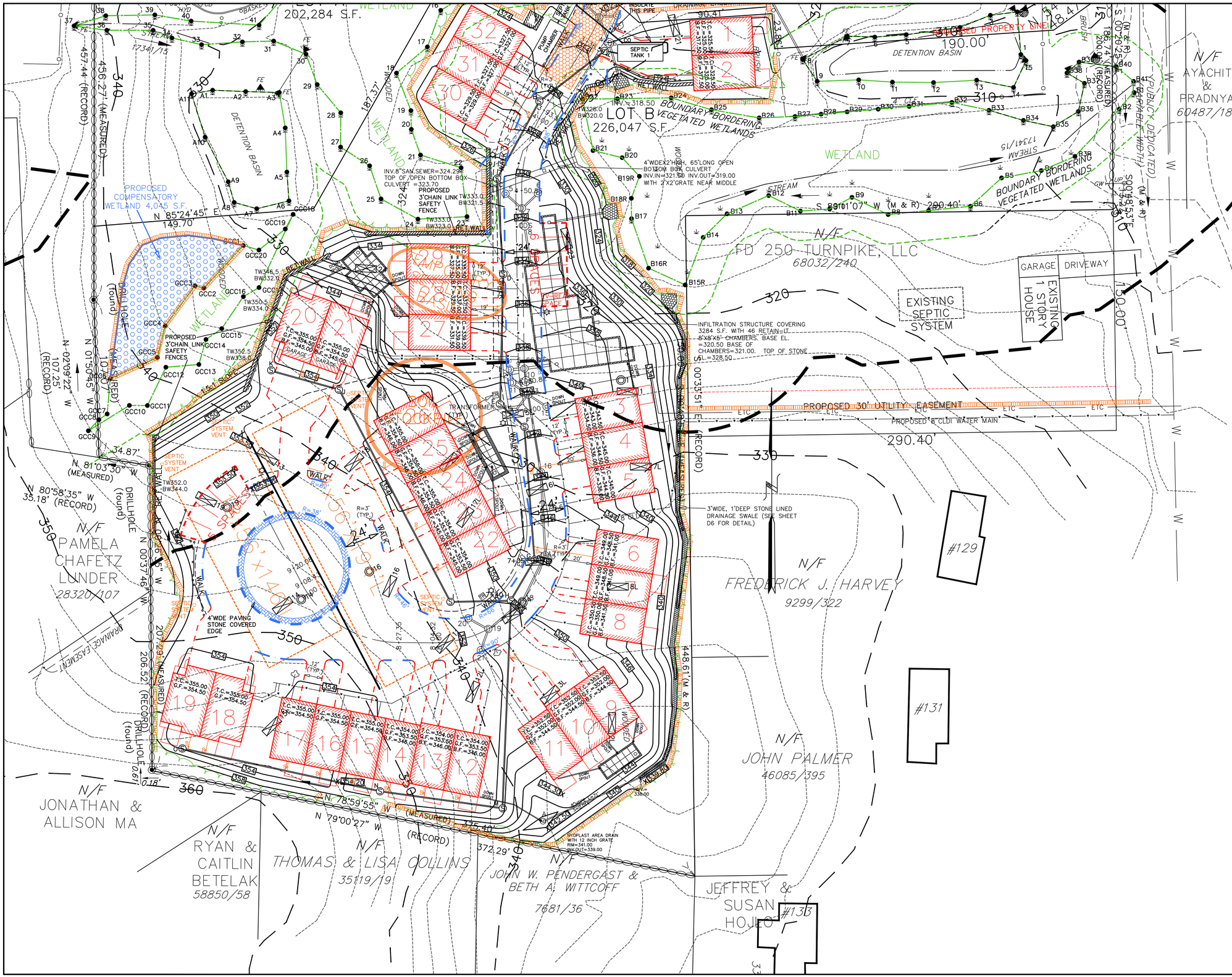
IN
SOUTHBOROUGH, MASS.

OWNER & APPLICANT:
FD 250 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

EROSION & SEDIMENT CONTROL PLAN ESC1




KEY

- 2' CONTOUR
- 10' CONTOUR
- EXISTING EDGE OF PAVEMENT
- UTILITY POLE
- OVERHEAD WIRES
- WETLAND EDGE
- TOWN 20' NO DISTURB ZONE
- 100' BUFFER ZONE EDGE
- STONE WALL
- PROPOSED TREE LINE
- PROPOSED EDGE OF PAVEMENT, MAIN DRIVE
- PROPOSED EDGE OF PAVEMENT, INDIVIDUAL UNIT'S DRIVE
- PROPOSED ELEVATION CONTOUR
- PROPOSED CATCH BASIN
- PROPOSED DRAIN MANHOLE
- PROPOSED SEWER MANHOLE
- PROPOSED HYDRANT
- PROPOSED WATER MAIN
- PROPOSED SEDIMENT CONTROL BARRIER

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____

COMMONWEALTH OF MASSACHUSETTS
JAMES L. TETREAULT
CIVIL
No. 38548
PROFESSIONAL ENGINEER


EXPEDITED ENGINEERING, LLC
*Professional Engineers & Erosion Control Specialists*
118 Turnpike Road, Suite 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com


| CLT. NO. | JOB NO. |
|---|---|
| 502 | 245-502 |
| DATE: APRIL 15, 2024 | DWG NO. 250TURNPIKECURRENT |

REVISIONS

| DATE: | DESCRIPTION |
|---|---|
| 11/20/24 | FROM SINGLE BUILDING TO TOWNHOUSES |
| 1/31/25 | TOWN REVIEW |
| 7/25/25 | TOWN REVIEW |

SCALE: 1 INCH = 30 FEET
FEET 0 15 30 60 90
METERS 0 15 30

# SITE PLAN OF LAND

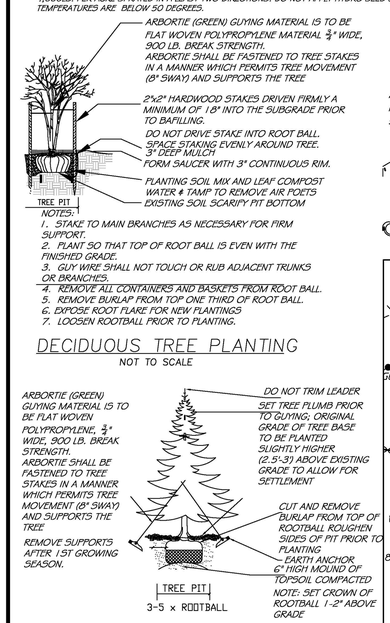
AT 250 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.

OWNER & APPLICANT:
FD 250 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

EROSION & SEDIMENT CONTROL PLAN ESC2

LANDSCAPING NOTES

1. NOTIFY DIG-SAFE AT 1-888-DIG-SAFE AND LOCAL AUTHORITIES PRIOR TO ANY TYPE OF SITE PREPARATION OR CONSTRUCTION.
2. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIAL AND MULCH IN SUFFICIENT QUANTITIES TO COMPLETE PLANTING AS SHOWN ON THE DRAWINGS.
3. DRAWING QUANTITIES TAKE PRECEDENCE OVER PLANT LIST QUANTITIES.
4. ALL PLANT MATERIAL SHALL CONFORM TO THE GUIDELINES SET FORTH BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION.
5. ALL TREES AND SHRUBS SHALL BE PLANTED WITH THE BEST FACE SHOWING. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN, UNLESS OTHERWISE APPROVED BY THE LANDSCAPE ARCHITECT.
6. ALL CONTAINER GROWN STOCK SHALL BE HEALTHY, VIGOROUS, WELL ROOTED AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE GROWING. THEY SHALL HAVE TOPS OF GOOD QUALITY, NO APPARENT INJURY AND BE IN A HEALTHY GROWING CONDITION. A CONTAINER GROWN PLANT SHALL HAVE A WELL ESTABLISHED ROOT SYSTEM REACHING THE SIDES OF THE CONTAINER TO MAINTAIN A FIRM BALL.
7. THE QUALITY OF ALL TREES & SHRUBS IS TO BE NORMAL FOR THE SPECIES. ALL PLANTS ARE TO HAVE DEVELOPED ROOT SYSTEMS, TO BE FREE OF INSECTS AND DISEASES AS WELL AS MECHANICAL INJURIES, AND IN ALL RESPECTS BE SUITABLE FOR PLANTINGS.
8. ALL CONIFERS SHALL HAVE DORMANT BUDS AND SECONDARY NEEDLES.
9. WHERE SPECIFIED, CALIPER SIZE IS TO BE THE OVERRIDING FACTOR IN TREE SELECTION. CALIPER SIZE SHALL BE MEASURED 12" ABOVE THE ROOTBALL.
10. PLANT SUBSTITUTIONS ARE NOT ALLOWED UNLESS APPROVED BY THE PROJECT LANDSCAPE ARCHITECT AND TOWN PLANNER.
11. ALL DISTURBED AREAS NOT SHOWN OTHERWISE SHALL BE LOAMED AND SEEDED AND BLENDED INTO EXISTING GRADE AND CONDITIONS.
12. PRIOR TO INSTALLING ANY PLANT MATERIAL, THE CONTRACTOR SHALL SUBMIT A LOAM SOIL SAMPLE FOR A ROUTINE, ORGANIC, SALTS, AND NITRATE SOIL TEST. UPON THE RESULTS OF THIS TEST, THE SITE CONTRACTOR SHALL AMEND THE LOAM AS RECOMMENDED.
13. PRIOR TO PLANTING, THE LANDSCAPER SHALL REVIEW AND COORDINATE WITH THE SITE UTILITY PLAN AND GRADING PLAN.
14. THE ROOTS OF NEWLY PLANTED TREES AND SHRUBS MUST BE KEPT STEADILY MOIST, AS THE DEVELOPING ROOTS ESTABLISH IN THE NEW SOIL. AT PLANTING, WATER THOROUGHLY TO SOAK THE ROOTS AND TO SETTLE THE NEW SOIL AROUND THE ROOT BALL. THE AMOUNT OF SUPPLEMENTAL WATER NEEDED EACH WEEK DURING THE FIRST GROWING SEASON AFTER PLANTING DEPENDS ON RECENT RAINFALL, TEMPERATURE, AND WIND. IF LESS THAN ONE-INCH OF RAIN HAS FALLEN OVER THE PAST FIVE TO SEVEN DAYS, THE NEW PLANTINGS MUST BE WATERED. LAWNS, TREES, AND SHRUBS WATERING SHALL OCCUR AT A MINIMUM OF TWO (2) TIMES A DAY FOR THE FIRST TWO (2) MONTHS; ONCE IN THE EARLY MORNING AND THEN THE OTHER IN THE LATE AFTERNOON. IN GENERAL TEN GALLONS OF WATER APPLIED TWICE A WEEK WILL WET A 20"-24" ROOT BALL AND PROVIDE THE EQUIVALENT OF ONE INCH OF RAIN FALL. NEW LAWNS SHALL BE WATERED SO THAT IS RECEIVES AT A MINIMUM ONE INCH (1") OF WATER EVERY WEEK.
15. THE LANDSCAPE BEDS ADJACENT TO THE RESIDENTIAL FOUNDATIONS, NO (HEMLOCK, PINE, SPRUCE, OR CEDAR) MULCH OR OTHER COMBUSTIBLE LANDSCAPE MATERIALS SHALL BE INSTALLED WITHIN 18" OF THE FOUNDATION.
16. ALL OTHER LANDSCAPE BEDS SHALL RECEIVE THREE-INCHES OF BARK MULCH.
17. LANDSCAPE AREAS SHALL BE DEEP TILLED TO A DEPTH OF TWELVE INCHES TO FACILITATE DEEP WATER PENETRATION.
18. ANY TREE AND VEGETATION REMOVAL SHALL BE IN COORDINATION WITH THE PROJECT LANDSCAPE ARCHITECT AND WITH APPROVAL FROM THE PLANNING BOARD.
19. LAWN SEED MIX SHALL BE THE PREVIOUS YEARS CROP: 35% JEFFERSON KENTUY BLUEGRASS, 35% CARMEN CHEWING FESCUE AND 30% STALLION PERENNIAL RYEGRASS, OR APPROVED EQUAL. PLANT AT A RATE OF 1 LB. PER 150 SQUARE FEET.
20. SLOPE SEED MIX SHALL BE THE PREVIOUS YEARS CROP. PLANT AT A RATE OF 1 LB. PER 150. SQUARE FEET. SEED MIX SHALL BE STALLION PERENNIAL RYE 10%, CREEPING RED FESCUE 50%, ANNUAL RYE GRASS 15%, JEFFERSON KENTUCY BLUE GRASS 10%, RED TOP CLOVER 5%, AND LADINO CLOVER 5%, OR APPROVED EQUAL. PLANT AT A RATE OF 1 LB. PER 150SF.
21. LAWN SEED AREAS SHALL BE NOT BE DEEMED ACCEPTABLE UNTIL IN EXCESS OF 80% OF EACH AREA, INDEPENDENTLY, IS GERMINATED, GROWING AND DISPLAYING HEALTHY, UNIFORM GROWTH AND HAS BEEN CUT TWICE. THE SITE CONTRACTOR IS RESPONSIBLE FOR APPLYING AT A MINIMUM 1" OF WATER A WEEK UNTIL THE SEEDED AREAS HAVE BEEN ACCEPTED. THE WATERING SHALL OCCUR IN SMALL DOSES. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY WEEDS (CRAB GRASS) WITHIN THE SEEDED AREAS UNTIL THE SEEDED AREAS HAVE BEEN ACCEPTED.
22. THE HYDRO SEED SLURRY SHALL BE A HF-FGM (HIGH PERFORMANCE FLEXIBLE GROWTH MEDIA- FLEXTERRA ). THE APPLICATION RATE SHALL BE 4,000LB. PER ACRE SPRAYED IN A LEAST TWO DIRECTIONS. DO NOT APPLY HYDRO SEED SLURRY IF RAIN IS EXPECTED WITHIN 12 HOURS, AND WHEN TEMPERATURES ARE BELOW 50 DEGREES.




NOTES:
1. STAKE TO MAIN BRANCHES AS NECESSARY FOR FIRM SUPPORT.
2. PLANT SO THAT TOP OF ROOT BALL IS EVEN WITH THE FINISHED GRADE.
3. GUY WIRE SHALL NOT TOUCH OR RUB ADJACENT TRUNKS OR BRANCHES.
4. REMOVE ALL CONTAINERS AND BASKETS FROM ROOT BALL.
5. REMOVE BURLAP FROM TOP ONE THIRD OF ROOT BALL.
6. EXPOSE ROOT FLARE FOR NEW PLANTINGS
7. LOOSEN ROOTBALL PRIOR TO PLANTING.

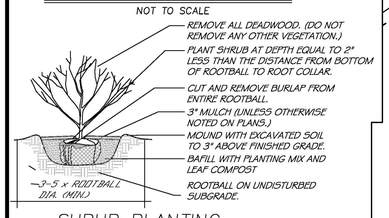
## DECIDUOUS TREE PLANTING

NOT TO SCALE



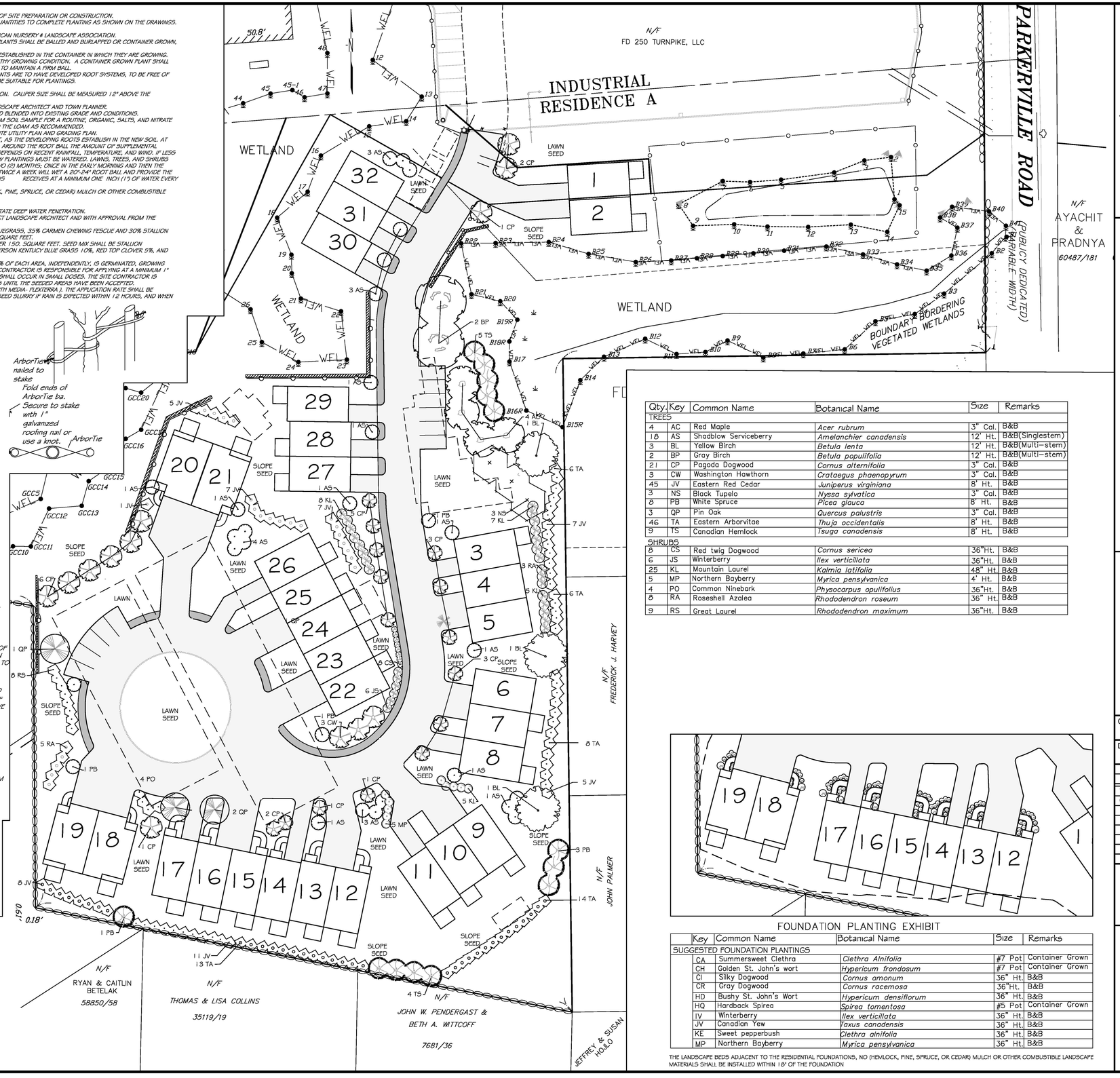

## EVERGREEN TREE PLANTING

NOT TO SCALE




## SHRUB PLANTING

(NOT TO SCALE)




| Qty. | Key | Common Name | Botanical Name | Size | Remarks |
|---|---|---|---|---|---|
| TREES | | | | | |
| 4 | AC | Red Maple | *Acer rubrum* | 3" Cal. | B&B |
| 18 | AS | Shadblow Serviceberry | *Amelanchier canadensis* | 12' Ht. | B&B(Singlestem) |
| 3 | BL | Yellow Birch | *Betula lenta* | 12' Ht. | B&B(Multi-stem) |
| 2 | BP | Gray Birch | *Betula populifolia* | 12' Ht. | B&B(Multi-stem) |
| 21 | CP | Pagoda Dogwood | *Cornus alternifolia* | 3" Cal. | B&B |
| 3 | CW | Washington Hawthorn | *Crataegus phaenopyrum* | 3" Cal. | B&B |
| 45 | JV | Eastern Red Cedar | *Juniperus virginiana* | 8' Ht. | B&B |
| 3 | NS | Black Tupelo | *Nyssa sylvatica* | 3" Cal. | B&B |
| 8 | PB | White Spruce | *Picea glauca* | 8' Ht. | B&B |
| 3 | QP | Pin Oak | *Quercus palustris* | 3" Cal. | B&B |
| 46 | TA | Eastern Arborvitae | *Thuja occidentalis* | 8' Ht. | B&B |
| 9 | TS | Canadian Hemlock | *Tsuga canadensis* | 8' Ht. | B&B |
| SHRUBS | | | | | |
| 8 | CS | Red twig Dogwood | *Cornus sericea* | 36"Ht. | B&B |
| 6 | JS | Winterberry | *Ilex verticillata* | 36"Ht. | B&B |
| 25 | KL | Mountain Laurel | *Kalmia latifolia* | 48" Ht. | B&B |
| 5 | MP | Northern Bayberry | *Myrica pensylvanica* | 4' Ht. | B&B |
| 4 | PO | Common Ninebark | *Physocarpus opulifolius* | 36"Ht. | B&B |
| 8 | RA | Roseshell Azalea | *Rhododendron roseum* | 36" Ht. | B&B |
| 9 | RS | Great Laurel | *Rhododendron maximum* | 36"Ht. | B&B |




FOUNDATION PLANTING EXHIBIT

| Key | Common Name | Botanical Name | Size | Remarks |
|---|---|---|---|---|
| SUGGESTED FOUNDATION PLANTINGS | | | | |
| CA | Summersweet Clethra | *Clethra Alnifolia* | #7 Pot | Container Grown |
| CH | Golden St. John's wort | *Hypericum frondosum* | #7 Pot | Container Grown |
| CI | Silky Dogwood | *Cornus amonum* | 36" Ht. | B&B |
| CR | Gray Dogwood | *Cornus racemosa* | 36"Ht. | B&B |
| HD | Bushy St. John's Wort | *Hypericum densiflorum* | 36" Ht. | B&B |
| HQ | Hardback Spirea | *Spirea tomentosa* | #5 Pot | Container Grown |
| IV | Winterberry | *Ilex verticillata* | 36" Ht. | B&B |
| JV | Canadian Yew | *Taxus canadensis* | 36" Ht. | B&B |
| KE | Sweet pepperbush | *Clethra alnifolia* | 36" Ht. | B&B |
| MP | Northern Bayberry | *Myrica pensylvanica* | 36" Ht. | B&B |

THE LANDSCAPE BEDS ADJACENT TO THE RESIDENTIAL FOUNDATIONS, NO (HEMLOCK, PINE, SPRUCE, OR CEDAR) MULCH OR OTHER COMBUSTIBLE LANDSCAPE MATERIALS SHALL BE INSTALLED WITHIN 18" OF THE FOUNDATION

KEY

- 320 — 2' CONTOUR
- 10' CONTOUR
- EXISTING EDGE OF PAVEMENT
- UTILITY POLE
- OHW — OVERHEAD WIRES
- WEL WEL WEL — WETLAND EDGE
- 100' BUFFER ZONE EDGE
- STONE WALL
- EXISTING TREE LINE
- PROPOSED EDGE OF PAVEMENT

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____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| CLT. NO. 502 | JOB NO. 245-502 |
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| DATE: APRIL 15, 2024 | DWG NO. 250TURNPIKECURRENT |

REVISIONS

| DATE: | DESCRIPTION |
|---|---|
| 11/20/24 | FROM SINGLE BUILDING TO TOWNHOUSES |
| 01/31/25 | REVISIONS |

SCALE: 1 INCH = 30 FEET
FEET 0 15 30 60 90
METERS 0 15 30

# SITE PLAN OF LAND

AT 250 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.

OWNER & APPLICANT:
FD 250 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

LANDSCAPE PLAN LS2


KEY

- 320 — 2' CONTOUR
- 10' CONTOUR
- EXISTING EDGE OF PAVEMENT
- UTILITY POLE
- OHW — OVERHEAD WIRES
- WEL WEL WEL — WETLAND EDGE
- 100' BUFFER ZONE EDGE
- STONE WALL
- EXISTING TREE LINE
- PROPOSED EDGE OF PAVEMENT

NOTES:
174.12.1(G–R)

G: THE CCT SITE LIGHTING IS 3000K
H: SITE LIGHTING PROVIDED
I: NO WAIVERS REQUESTED AT THIS TIME
K: NO RECREATIONAL LIGHTS ARE PROPOSED
L: THE STREET LIGHT CCT LIGHTING IS 3000K
M: SITE LIGHTING FIXTURES ARE FULL CUTOFF
N: NO FLICKERING LIGHTS ARE PROPOSED
O: WALL MOUNTED FIXTURES ARE MOUNTED AT 6'. POLE MOUNTED FIXTURES ARE MOUNTED AT 16'.
P: NO CEILING MOUNTED FIXTURES ARE PROPOSED
Q: SITE LUMEN LEVELS ARE LISTED IN THE LIGHTING TABLE
R: NO LIGHT TRESPASS IS PROPOSED

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____



GARAGE LIGHT FIXTURE



DRIVEWAY LIGHT FIXTURE

SITE LIGHTING SUMMARY

| Calculation Summary | | | | | | |
|---|---|---|---|---|---|---|
| Label | Units | Avg | Max | Min | Avg/Min | Max/Min |
| SITE | Fc | 0.12 | 3.5 | 0.0 | N.A. | N.A. |
| CUL-DE-SAC | Fc | 0.54 | 3.2 | 0.0 | N.A. | N.A. |
| ROAD | Fc | 1.23 | 3.5 | 0.2 | 6.15 | 17.50 |

| LPD Area Summary | | | |
|---|---|---|---|
| Label | Area | Total Watts | LPD |
| LPD | 43640 | 734.0374 | 0.017 |

| Luminaire Schedule | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Symbol | Qty | Label | Description | LLF | Luminaire Lumens | Luminaire Watts | Mounting Height | BUG Rating |
| | 10 | A | INVUE: EMM2-XXX-SA1B-730-U-T3-XX--XX-CL-XX-HSS | 0.900 | 4121 | 44 | 16 | B0-U0-G1 |
| | 32 | W | WAC: WS-W15708 | 0.900 | 330 | 9.18868 | 6 | B0-U1-G0 |


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| 01/31/25 | REVISIONS |
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SCALE: 1 INCH = 30 FEET
FEET 0 15 30 60 90
METERS 0 15 30

# SITE PLAN OF LAND

AT 250 TURNPIKE ROAD
IN
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OWNER & APPLICANT:
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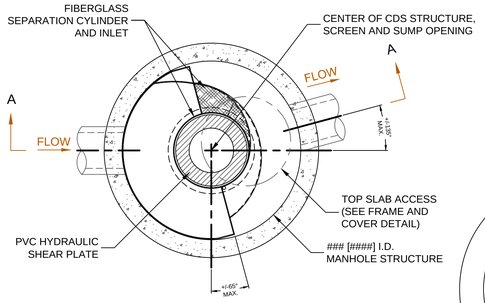
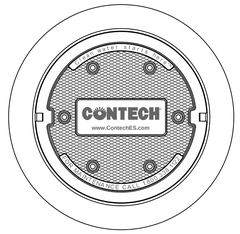
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

LIGHTING PLAN LS2

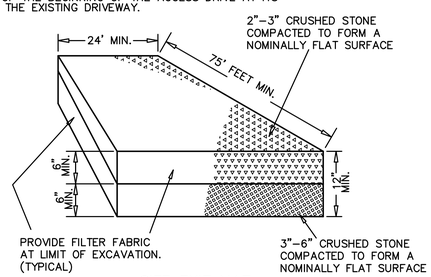



**PLAN VIEW B-B**
N.T.S.

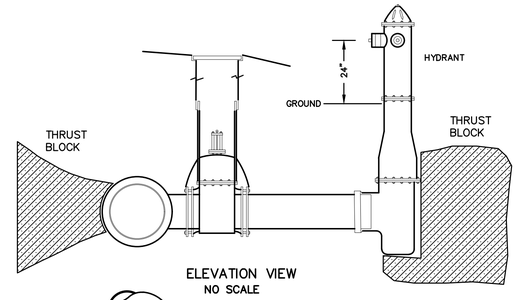



**FRAME AND COVER**
(DIAMETER VARIES)
N.T.S.

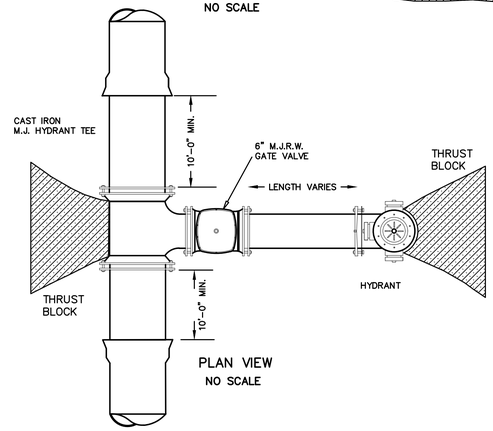
NOTE:
THE PROPOSED LOCATION OF THE SITE ENTRANCE MAT WILL BE IN THE LOCATION OF THE BEGINNING OF THE ACCESS DRIVE AT ITS ENTRANCE OFF THE EXISTING DRIVEWAY.




SITE EXIT MAT
(NOT TO SCALE)
THE ACCESS DRIVEWAY WILL BE SWEPT DAILY IF HAULING IS IN PROGRESS.




ELEVATION VIEW
NO SCALE




PLAN VIEW
NO SCALE

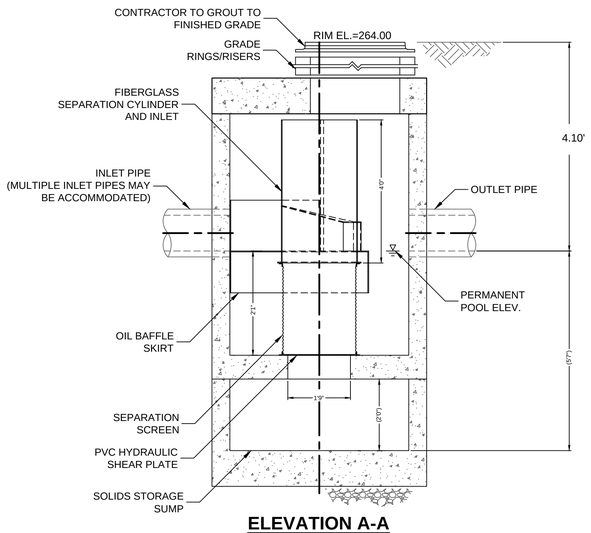
TYPICAL HYDRANT W/GATE
(NOT TO SCALE)

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____.

_____
_____
_____
_____
_____

## GENERAL NOTES:

1) THERE ARE NO FEMA FLOOD ZONES ON THESE LOTS.
2) ACCORDING TO THE MASSMAPPER WEB SITE, THERE ARE NO ENDANGERED SPECIES HABITATS AND NO VERNAL POOLS ON OR ADJACENT TO THIS SITE.
3) THE PROJECT SITE IS SHOWN AS PARCEL 46 ON ASSESSOR MAP 27.
4) TOTAL SITE ALTERATION IS EXPECTED TO BE 3.5 ACRES.
5) TOPSOIL WILL BE STOCKPILED IN THE AREA OF PROPOSED UNIT 25 OR OTHER SUITABLE LOCATION OUTSIDE OF THE 100 FOOT BUFFER ZONE.
6) TOTAL PROPOSED FLOOR AREA IN THE 32 UNITS WILL BE 79,842 S.F. THIS GIVES A FLOOR-AREA RATIO OF 0.36.
7) A GENERAC GP6500 GENERATOR, OR APPROVED EQUAL, SHALL BE PROVIDED TO SUPPLY EMERGENCY POWER TO THE SEPTIC SYSTEM PUMPS.

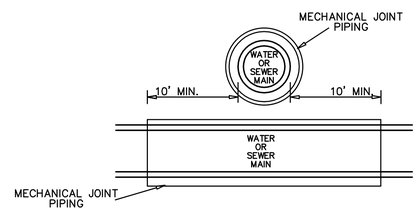



**ELEVATION A-A**
N.T.S.

CONTECH CDS MODEL 2015
STORMWATER FILTRATION UNIT
(NOT TO SCALE)

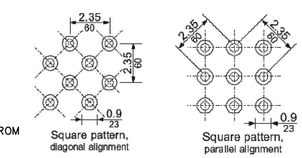
NOTE:
SANITARY SEWER SHALL BE INSTALLED WITH A MINIMUM HORIZONTAL SEPARATION OF 10 FEET TO ALL WATER SUPPLY LINES. WHEN A 10 FOOT HORIZONTAL SEPARATION BETWEEN THE SEWER AND WATER CANNOT BE MAINTAINED, THE WATER MAIN SHALL BE INSTALLED IN A SEPARATE TRENCH ABOVE THE SEWER WITH AN 18 INCH VERTICAL SEPARATION BETWEEN THE CROWN OF THE SEWER AND THE INVERT OF THE WATER MAIN.

HOWEVER, WHEN THE ELEVATION OF THE SEWER CANNOT BE VARIED TO MEET THIS REQUIREMENT, THE WATER MAIN SHOULD BE RELOCATED TO PROVIDE THIS SEPARATION OR CONSTRUCTED WITH MECHANICAL-JOINT PIPE FOR A DISTANCE OF 10 FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHOULD BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR FROM THE SEWER AS POSSIBLE. SEE DETAIL.



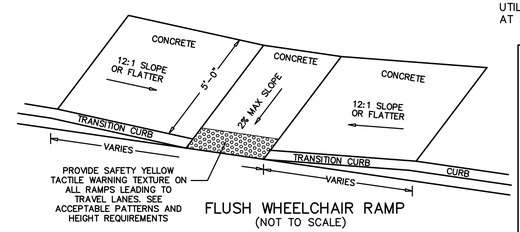

MECHANICAL JOINT PIPING OF BOTH WATER AND SEWER SHALL EXTEND FOR 10 FEET FROM THE INTERSECTION OF THE MAINS AND ALONG EACH MAIN. CENTER ONE FULL PIPE LENGTH OF BOTH WATER AND SEWER OVER THE INTERSECTION.

WATER MAIN/SEWER MAIN CROSSING
WHERE 18" VERTICAL CLEARANCE IS NOT PROVIDED
(NOT TO SCALE)




**Detectable warnings shall consist of raised truncated domes with a diameter of nominal 0.9 in (23 mm), a height of nominal 0.2 in (5 mm) and a center-to-center spacing of nominal 2.35 in (60 mm) and shall contrast visually with adjoining surfaces, either light-on-dark or dark-on-light.**

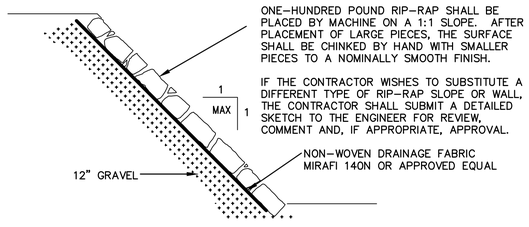
**The material used to provide contrast shall be an integral part of the walking surface. Detectable warnings used on interior surfaces shall differ from adjoining walking surfaces in resiliency or sound-on-cane contact.** ADAAG 4.29.2



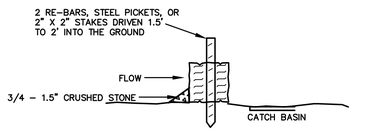

FLUSH WHEELCHAIR RAMP
(NOT TO SCALE)

## DIG SAFE:

EXCEPT FOR VISIBLE STRUCTURES (MANHOLES, GATES, POLES, ETC.) LOCATED BY THE PROJECT SURVEYOR, ALL UNDERGROUND UTILITIES SHOWN WERE COMPILED ACCORDING TO AVAILABLE RECORD PLANS FROM THE VARIOUS UTILITY COMPANIES AND PUBLIC AGENCIES AND ARE APPROXIMATE ONLY. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD BEFORE DESIGNING, EXCAVATING, BLASTING OR INSTALLING, BACKFILLING, GRADING, PAVEMENT RESTORATION, OR REPAIRING. ALL UTILITY COMPANIES, PUBLIC & PRIVATE, MUST BE CONTACTED, INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN. EXPEDITED ENGINEERING, LLC ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. CALL "DIG SAFE" AT 811 or 1-888-DIG-SAFE.

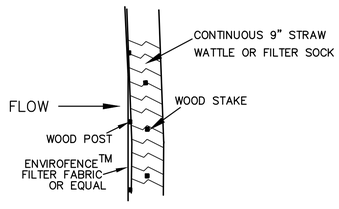



1:1 RIP-RAP SLOPE
(NOT TO SCALE)

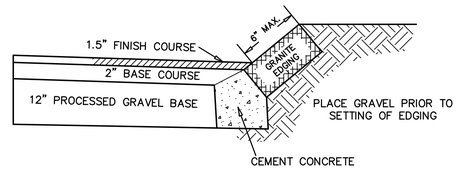



TO BE PLACED AROUND CATCH BASINS DURING CONSTRUCTION

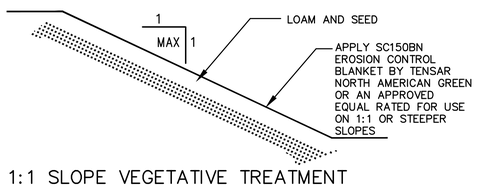
STRAW BALE DIKE
(NOT TO SCALE)



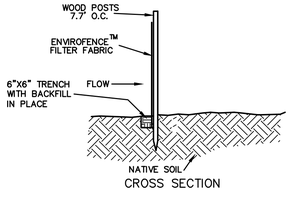

PLAN VIEW




SETTING SLOPED GRANITE CURBING
(NOT TO SCALE)

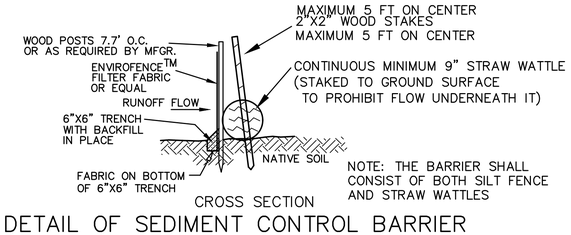



3:1 TO 1:1 SLOPE VEGETATIVE TREATMENT
(NOT TO SCALE)




CROSS SECTION

SEDIMENTATION CONTROL FENCING
(NOT TO SCALE)




CROSS SECTION

DETAIL OF SEDIMENT CONTROL BARRIER
(NOT TO SCALE)


COMMONWEALTH OF MASSACHUSETTS
JAMES L TETREAULT
CIVIL
No. 38548
PROFESSIONAL ENGINEER

EXPEDITED ENGINEERING, LLC
*Professional Engineers & Erosion Control Specialists*
118 Turnpike Road, 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com


| CLT. NO. 504 | JOB NO. 290-504 |
|---|---|
| DATE: NOVEMBER 20, 2024 | DWG NO. 250TURNPIKECURRENT |

REVISIONS

| DATE: | DESCRIPTION |
|---|---|
| 1/31/25 | TOWN REVIEW |
| 7/25/25 | TOWN REVIEW |

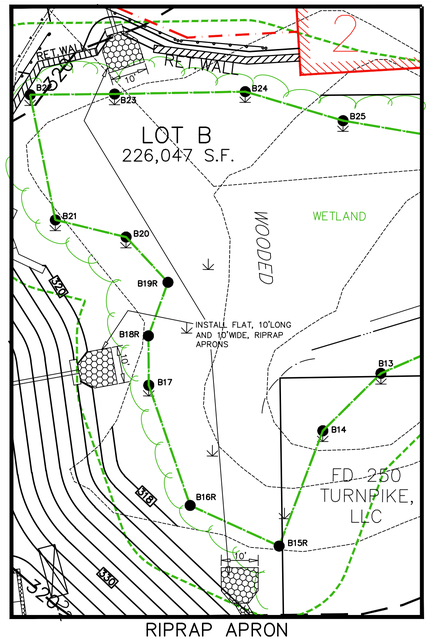
SCALE: AS NOTED

# SITE PLAN OF LAND

AT 250 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.

OWNER & APPLICANT:
FD 250 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

DETAIL SHEET D1




RIPRAP APRON
SCALE: 1" = 20'

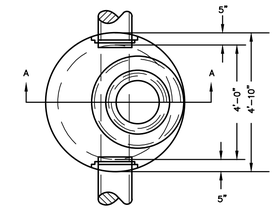
NOTES:
1)THE MEDIAN SIZE OF THE STONES ON THE RIPRAP APRON SHALL BE 6 INCHES
2)THE STONES SHALL REST ON A LAYER OF MIRAFI 1100N FABRIC(OR APPROVED EQUAL) ON TOP OF AN 8 INCH GRAVEL BASE

SANITARY SEWER PIPE AND INVERT TABLE

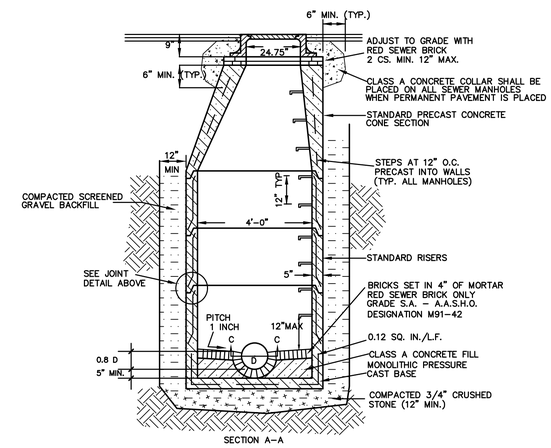
| FROM | | | | PIPE | | | | TO | | |
|---|---|---|---|---|---|---|---|---|---|---|
| STRUCTURE | | RIM/GRATE | INVERT OUT | LENGTH (FT.) | SIZE (IN.) | SLOPE (FT/FT) | TYPE | STRUCTURE | | INVERT IN |
| SMH | O | 353.90 | 347.90 | 134' | 8" | 0.015 | PVC | SMH | N | 345.90 |
| SMH | N | 352.80 | 345.70 | 80' | 8" | 0.013 | PVC | SMH | M | 345.70 |
| SMH | M | 350.50 | 344.50 | 137' | 8" | 0.012 | PVC | SMH | H | 342.90 |
| SMH | K | 353.50 | 347.50 | 44' | 8" | 0.023 | PVC | SMH | J | 346.50 |
| SMH | J | 353.60 | 346.30 | 159' | 8" | 0.013 | PVC | SMH | I | 344.30 |
| SMH | I | 352.50 | 344.10 | 48' | 8" | 0.025 | PVC | SMH | H | 342.90 |
| SMH 7+40 | H | 349.88 | 342.70 | 28' | 8" | 0.064 | PVC | SMH | G | 340.90 |
| SMH 7+05 | G | 348.00 | 340.70 | 87' | 8" | 0.071 | PVC | SMH | F | 334.50 |
| SMH 6+11 | F | 341.40 | 334.30 | 19' | 8" | 0.021 | PVC | SMH | E | 333.90 |
| SMH 5+93 | E | 341.10 | 333.70 | 84' | 8" | 0.067 | PVC | SMH | D | 328.10 |
| SMH 5+07 | D | 334.90 | 327.90 | 61' | 8" | 0.062 | PVC | SMH | C | 324.10 |
| SMH 4+44 | C | 330.60 | 323.90 | 56' | 8" | 0.066 | PVC | SMH | B | 320.20 |
| SMH 3+90 | B | 326.60 | 320.00 | 74' | 8" | 0.028 | PVC | SMH | A | 317.90 |
| SMH 3+10 | A | 323.10 | 317.70 | 11' | 8" | 0.016 | PVC | S.TANK 1 | A | 317.50 |
| S.TANK | 1 | N/A | 317.25 | 4' | 8" | 0.083 | PVC | S.TANK 2 | A | 317.15 |
| S.TANK | 2 | N/A | 316.90 | 6' | 8" | 0.019 | PVC | PUMP CHAMBER | | 316.70 |
| PUMP CHAMBER | | N/A | 316.45 | 399' | 6"CL150 FORCE MAIN | | | MANIFOLD | | 349.00 |

DRAINAGE PIPE AND INVERT TABLE

| FROM | | | | PIPE | | | | TO | | |
|---|---|---|---|---|---|---|---|---|---|---|
| STRUCTURE | | RIM/GRATE | INVERT OUT | LENGTH (FT.) | SIZE (IN.) | SLOPE (FT/FT) | TYPE | STRUCTURE | | INVERT IN |
| TO DISCHARGE AT HEADWALL NORTH OF WETLAND FLAG B23 | | | | | | | | | | |
| CB 3+15 | 1 | 322.96 | 319.30 | 8' | 8" | 0.025 | HDPE | DMH | 3 | 319.10 |
| CB 3+15 | 2 | 322.96 | 319.30 | 8' | 8" | 0.025 | HDPE | DMH | 3 | 319.10 |
| DMH 3+20 | 3 | 323.30 | 318.90 | 3' | 12" | 0.033 | HDPE | CDS2015 | 4 | 318.80 |
| CDS2015 3+25 | 4 | 323.30 | 318.80 | 30' | 12" | 0.010 | HDPE | HEADWALL | | 318.50 |
| TO NORTH END OF PROPOSED IN GROUND INFILTRATION AREA | | | | | | | | | | |
| CB 4+53 | 5 | 330.50 | 326.60 | 11' | 12" | 0.018 | HDPE | DMH | 7 | 326.40 |
| CB 4+53 | 6 | 330.50 | 326.60 | 11' | 12" | 0.018 | HDPE | DMH | 7 | 326.40 |
| DMH 4+63 | 7 | 331.60 | 324.40 | 8' | 15" | 0.013 | HDPE | CDS2015 | 8 | 324.30 |
| CDS2015 4+75 | 8 | 332.38 | 324.30 | 26' | 15" | 0.012 | HDPE | INFILTRATION | | 324.00 |
| TO SOUTH END OF PROPOSED IN GROUND INFILTRATION AREA | | | | | | | | | | |
| CB 7+75 | 21 | 351.35 | 347.30 | 11' | 12" | 0.018 | HDPE | DMH | 19 | 347.10 |
| CB 7+75 | 20 | 351.35 | 347.30 | 11' | 12" | 0.018 | HDPE | DMH | 19 | 347.10 |
| DMH 7+65 | 19 | 351.14 | 346.60 | 26' | 12" | 0.039 | HDPE | DMH | 18 | 345.60 |
| DMH 7+35 | 18 | 349.72 | 344.80 | 31' | 12" | 0.039 | HDPE | DMH | 17 | 343.60 |
| DMH 7+00 | 17 | 347.73 | 341.60 | 53' | 12" | 0.038 | HDPE | DMH | 16 | 339.60 |
| DMH 6+43 | 16 | 343.85 | 338.00 | 49' | 12" | 0.039 | HDPE | DMH | 13 | 336.10 |
| CB 6+00 | 15 | 340.69 | 336.60 | 11' | 12" | 0.018 | HDPE | DMH | 13 | 336.40 |
| CB 6+00 | 14 | 340.69 | 336.60 | 11' | 12" | 0.018 | HDPE | DMH | 13 | 336.40 |
| DMH 5+90 | 13 | 340.25 | 334.30 | 10' | 18" | 0.020 | HDPE | DMH | 11 | 334.10 |
| DMH 5+80 | 11 | 339.32 | 333.90 | 5' | 12" | 0.020 | HDPE | CDS 3035C | 10 | 333.80 |
| CDS3035C 5+80 | 10 | 339.50 | 333.80 | 4' | 12" | 0.025 | HDPE | DMH | 9 | 333.70 |
| DMH 5+80 | 11 | 339.28 | 334.50 | 5' | 18" | 0.020 | HDPE | DMH | 12 | 334.40 |
| DMH 5+72 | 12 | 338.75 | 334.20 | 6' | 18" | 0.033 | HDPE | DMH | 9 | 334.00 |
| DMH 5+72 | 9 | 338.95 | 324.30 | 17' | 18" | 0.018 | HDPE | INFILTRATION | | 324.00 |

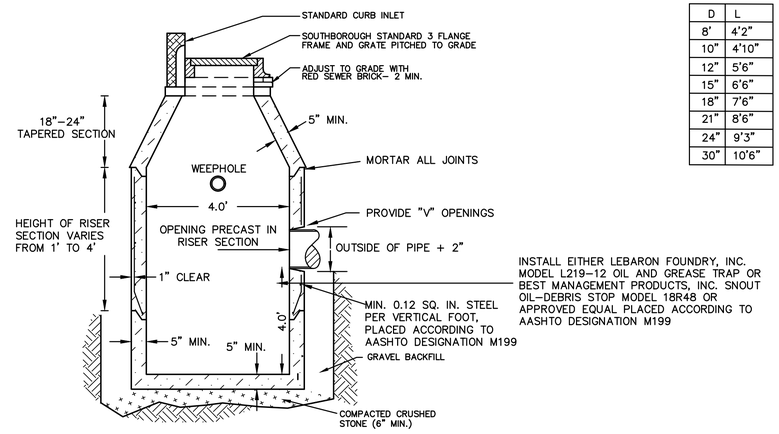



PLAN VIEW OF
TYPICAL PRE-CAST MANHOLE
(NOT TO SCALE)



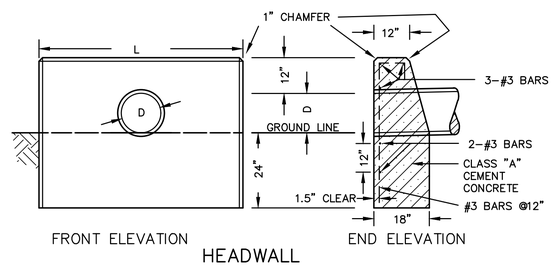

TYPICAL PRE-CAST MANHOLE
(NOT TO SCALE)

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____.

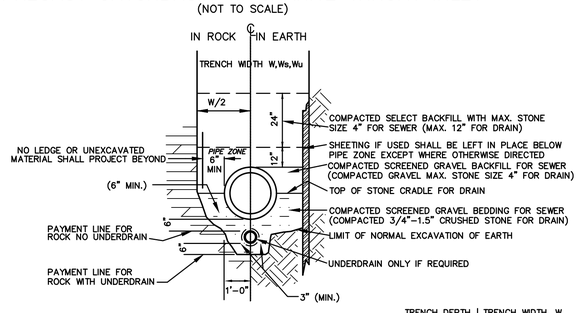



PRECAST CATCHBASIN W. GRANITE THROAT INLET
(NOT TO SCALE)

| D | L |
|---|---|
| 8' | 4'2" |
| 10" | 4'10" |
| 12" | 5'6" |
| 15" | 6'6" |
| 18" | 7'6" |
| 21" | 8'6" |
| 24" | 9'3" |
| 30" | 10'6" |




HEADWALL
(NOT TO SCALE)




TYPICAL TRENCH SECTION
ONE PIPE
(NOT TO SCALE)

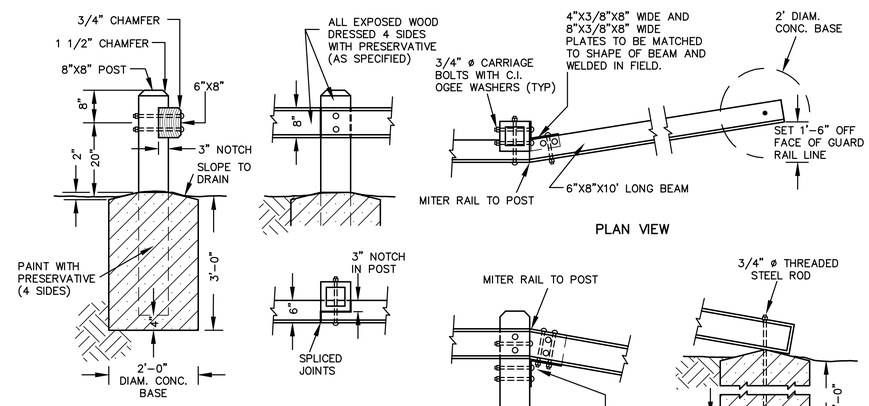
| TRENCH DEPTH TO INVERT | TRENCH WIDTH, W FOR SEWER |
|---|---|
| 0'–12' | 5' |
| 12'–20' | 7' |
| >20' | 9' |


NOTES:
THE SIGN SHALL BE PERMANENTLY LOCATED AT A HEIGHT OF NOT LESS THAN FIVE FEET NOR MORE THAN EIGHT FEET TO THE TOP OF THE SIGN.

THE SIGN SHALL BE LOCATED AT THE HEAD OF THE SPACE AND NO MORE THAN TEN FEET AWAY FROM THE SPACE. THE SIGN SHALL BE MOUNTED ON A NOMINAL 2"X2" GALVANIZED STEEL POST.

THE PROPOSED ACCESS AISLE NEXT TO THE SPACE SHALL BE 8 FEET WIDE.

HC PARKING SIGN
(NOT TO SCALE)




NOTE:
1. POST SPACING OF 7'–4" ALLOWS USE OF 8'–0" LENGTH TIMBER RAILS FOR CONSTRUCTION. USE THIS AS MAXIMUM SPACING.

2. FOR CONCRETE BASES OVER CULVERTS USE 2' DIAMETER AND 2' DEEP.

3. NICK THREADS ON BOLTS.

4. USE C.I. OGEE WASHERS WITH ALL NUTS.

TIMBER GUARD RAIL
NOT TO SCALE

GUARD RAIL END TRANSITION
NOT TO SCALE



EXPEDITED ENGINEERING, LLC
*Professional Engineers & Erosion Control Specialists*
118 Turnpike Road, 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com


| CLT. NO. | JOB NO. |
|---|---|
| 504 | 290–504 |
| DATE: NOVEMBER 20, 2024 | DWG NO. 250TURNPIKECURRENT |

REVISIONS

| DATE: | DESCRIPTION |
|---|---|
| 1/31/25 | TOWN REVIEW |
| 7/25/25 | TOWN REVIEW |

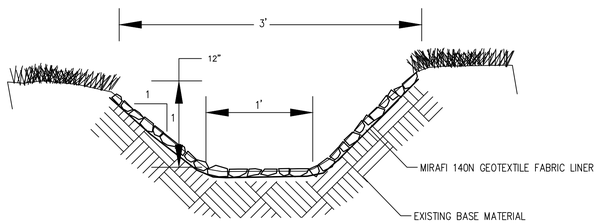
SCALE: AS NOTED

# SITE PLAN OF LAND

AT 250 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.

OWNER & APPLICANT:
FD 250 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

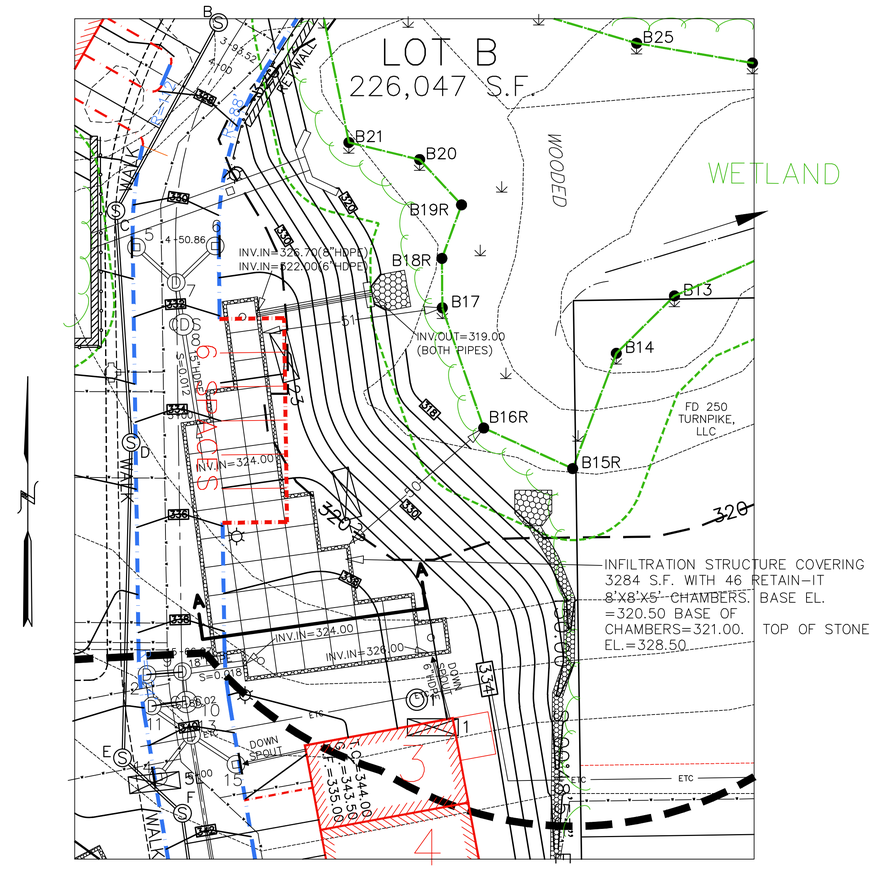
DETAIL SHEET D2



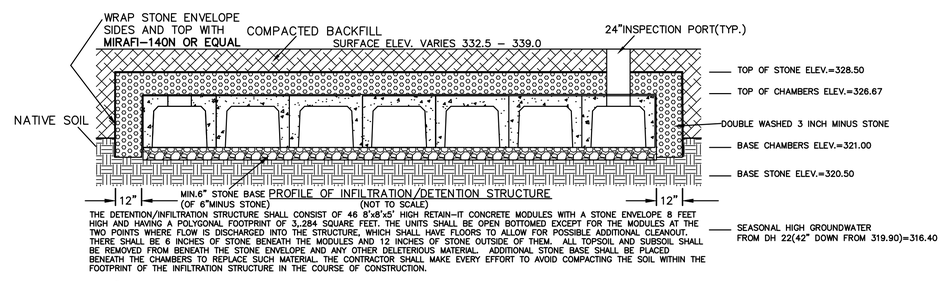

NOTE: RIPRAP SWALE LINING SHALL BE ANGULAR PIECES WITH A MEAN DIAMETER OF 6"

PROPOSED DRAINAGE SWALE

NOT TO SCALE




PLAN VIEW OF INFILTRATION STRUCTURE
(SCALE: 1" = 20')




PROFILE OF INFILTRATION/DETENTION STRUCTURE
(NOT TO SCALE)

THE DETENTION/INFILTRATION STRUCTURE SHALL CONSIST OF 46 8'x8'x5' HIGH RETAIN-IT CONCRETE MODULES WITH A STONE ENVELOPE 8 FEET HIGH AND HAVING A POLYGONAL FOOTPRINT OF 3,284 SQUARE FEET. THE UNITS SHALL BE OPEN BOTTOMED EXCEPT FOR THE MODULES AT THE TWO POINTS WHERE FLOW IS DISCHARGED INTO THE STRUCTURE, WHICH SHALL HAVE FLOORS TO ALLOW FOR POSSIBLE ADDITIONAL CLEANOUT. THERE SHALL BE 6 INCHES OF STONE BENEATH THE MODULES AND 12 INCHES OF STONE OUTSIDE OF THEM. ALL TOPSOIL AND SUBSOIL SHALL BE REMOVED FROM BENEATH THE STONE ENVELOPE AND ANY OTHER DELETERIOUS MATERIAL. ADDITIONAL STONE BASE SHALL BE PLACED BENEATH THE CHAMBERS TO REPLACE SUCH MATERIAL. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO AVOID COMPACTING THE SOIL WITHIN THE FOOTPRINT OF THE INFILTRATION STRUCTURE IN THE COURSE OF CONSTRUCTION.

THE 8"HDPE OUTLET PIPE AT INV.=326.70 SHALL HAVE AN AGRI-DRAIN CAP.

DETAIL OF INFILTRATIION STRUCTURE ON EAST SIDE OF MAIN DRIVE
(SCALE: 1" = 20')

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____.

COMMONWEALTH OF MASSACHUSETTS
JAMES L TETREAULT
CIVIL
No. 38548
PROFESSIONAL ENGINEER


EXPEDITED ENGINEERING, LLC

*Professional Engineers & Erosion Control Specialists*

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| CLT. NO. | JOB NO. |
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| 504 | 290-504 |
| DATE: NOVEMBER 20, 2024 | DWG NO. 250TURNPIKECURRENT |

REVISIONS

| DATE: | DESCRIPTION |
|---|---|
| 1/31/25 | TOWN REVIEW |
| 7/25/25 | TOWN REVIEW |

SCALE: AS NOTED

# SITE PLAN OF LAND

AT 250 TURNPIKE ROAD

IN

SOUTHBOROUGH, MASS.

OWNER & APPLICANT:

FD 250 TURNPIKE, LLC

118 TURNPIKE ROAD, SUITE 300

SOUTHBOROUGH, MA 01772

DETAIL SHEET D3

# POLLUTION PREVENTION PLAN
# FOR
# 250 TURNPIKE ROAD, SOUTHBOROUGH, MA

PROJECT DESCRIPTION

This is a proposal to develop this site and construct 32 townhouse units for rent along with associated parking and driving aisles and necessary utility infrastructure on Lot B, having an area of 5.19 acres.

Construction will take place in a single phase and is expected to last from the winter of 2024/2025 into the fall of 2026. Total site alteration will be approximately 3.5 acres.

Construction Process
Before construction begins, erosion control barriers consisting of silt fencing attached to posts and backed by staked straw wattles will be placed at the limit of work as shown on the Erosion & Sediment Control Plans, Sheets ESC1–ESC2.

The first step of the construction process will be the cutting of trees within the limits of proposed development. After this has been accomplished in the demarcated areas, clearing and grubbing will take place and loam will be stockpiled in the area of proposed unit 25. Stumps will be ground on site to use the grindings as temporary stabilization. Temporary settling basins will be installed downgradient of work where appropriate with one suggested location shown, in the area of proposed unit 28.

The time of construction requiring the most attention and care occurs between the stripping of natural overburden and the stabilization of construction areas. Cut and fill areas create additional risk by increasing the possibility of stormwater runoff causing erosion.

The contractor will, to the extent possible, leave natural cover untouched at the edges of the property and surrounding the wetland. The contractor will limit to the shortest time possible the time that areas are exposed. The landscaping will be completed as early as weather and building construction allow. During the times between clearing and landscaping, soils will be stabilized with a combination of stump grindings, wood chips, hay/straw mulch, temporary grass seeding and other measures as necessary to prevent any significant erosion of soils.

Soil stockpile areas will be kept as far from wetlands and ponds as possible on site. Soil stockpiles shall be surrounded by staked silt fence placed at least 5 foot off the toe of slope of the stockpile. One suitable stockpile location is shown in the area of proposed unit 25.

In conjunction with the site grading process, a number of sedimentation control procedures will be followed. The object of the procedures is to prevent the erosion of soils and the transport of sediments to adjacent properties and eventually to wetland resource areas off site.

Stabilization
Temporary and permanent stabilization of disturbed surfaces is the most reliable method of preventing the erosion and transport of site soils. Toward that end, the areas that are disturbed will be provided temporary stabilization within two weeks after the last disturbance when:
- Work is not complete in that area,
- Work will remain incomplete for a period of two weeks or more, and
- The planting season has not been reached in areas which will be re–vegetated.

Permanent stabilization will take place when:
- Work is complete in that area and
- The planting season has been reached and areas can be revegetated.

Best Management Practices Employed
To guard against the transport of soils offsite several Best Management Practices (BMP's) may be employed. Sediment control barriers, sediment sumps, temporary settling basins, straw bale check dikes, swales, a site entrance mat, flocculants in both crystal and block forms, and organic media for capture of silt below flocculants may be used on this site as appropriate. All of these measures are temporary. The site's permanent protection against erosion and the deposition of sediment off site at resource areas is the permanent stabilization of formerly exposed surfaces with pavement, lawn and other landscaping.

Soils
According to the MassMapper web site the soils underlying this site are Woodbridge series soils which are categorized as hydrologic soil group C soils and Canton series soils categorized as hydrologic soil group B soils.

Resource Areas
There are multiple bordering vegetated wetland on site, the boundaries of which have already been confirmed by an Order of Conditions.

SITE PLAN DEVELOPMENT
As part of the Site Plans submitted to the Town of Southborough, Expedited Engineering, LLC has prepared this erosion and sediment control plan calling for permanent and temporary erosion control measures. There is an existing drainag system on Lot A to the north of the proposed development but no connection to that drainage system is proposedl.

PHASING
Construction of the project will take place in one phase. Total site alteration will be approximately 3.5 acres.

POLLUTION PREVENTION SITE PLAN
The Site Plans prepared by Expedited Engineering, LLC contain Erosion & Sediment Control Plans. Various Best Management Practices (BMP's) are described herein and/or shown on the Erosion & Sediment Control Plans or the Detail Sheets and will be used to prevent or to mitigate erosion and pollution.

INSPECTION AND MAINTENANCE OF EROSION CONTROLS
1. At all times, siltation fabric fencing, straw wattles or straw bales and stakes sufficient to construct an erosion control barrier a minimum 25 feet long will be stockpiled on the site in order to repair established barriers which may have been damaged or breached.

2. The Developer will designate as Inspector a person or entity other than the site supervisor The Inspector must be accessible seven days a week and be responsible for inspecting and coordinating the maintenance and repair of all erosion control systems on the site.

3. An inspection of all erosion control measures shall be conducted by the Inspector at least once each week until the completion of construction of the subdivision. The Contractor shall inspect all erosion control systems daily and shall notify the Inspector of any breaches or failures. In case of any noted breach or failure, the Contractor shall immediately make appropriate repairs.

4. The Inspector shall inspect all erosion control systems on the site before, during and after any storm event reaching one of the following thresholds:
   a. Any storm in which rain is predicted to last for 12 consecutive hours or more.
   b. Any storm for which a flash flood watch or warning is issued.
   c. Any single storm predicted to have a cumulative rainfall greater than 1/4 inch.
   d. Any storm event not meeting the previous three thresholds but which would mark the third consecutive day of measurable rainfall.

5. The Inspector shall inspect erosion control measures at times of significant increase in runoff due to rapid thawing when the risk of failure of those measures is significant.

6. In such instances as remedial action is necessary, the Inspector shall cause to be repaired within seven days, any and all significant deficiencies in erosion control measures.

7. The Southborough Conservation Commission shall be notified of any significant failure of erosion control measures and shall be notified of any release of pollutants.

EROSION CONTROL DEVICES OR PROCESSES

1. Sediment Control Barrier
The sediment control barrier will consist of an approved siltation fabric fencing installed on posts according to the manufacturer's instructions and backed by staked straw wattles. The barriers will be placed in a manner that prevents the passage of soil materials under, around or over it. Sediment will be removed from against the barrier when the accumulated sediment has reached one third of the original installed height of the barrier.

2. Straw Bale Diversion Dike
Straw bales will be placed in other locations on the site in order to further prevent the flow of sediment from the site or reduce the velocity of runoff crossing open land or running off stockpile or fill areas. Straw bale diversion dikes will also be placed within developing rills to reduce surface runoff velocities and to shift the path of the water flow. The locations where straw bale diversion dikes are installed will be determined in the field at the Inspector's discretion.

3. Slope Stabilization
Slopes or surfaces that are created due to excavation or filling along the edge of the parking or loading areas will be temporarily stabilized with one or more of the following:
- Straw mulch with tackifier
- Soft wood and hard wood chips or stump grindings.

Permanent stabilization of slopes and surfaces will employ one or more of the following:
- 6 inches of loam and grass
- Sod
- Riprap
- Erosion control blankets such as Tensar North American Green SC150BN or approved equal and vegetation
- Mulch and landscaping plantings
- A combination of grasses, riprap and/or plants and shrubbery
- In areas that will be steeper than 2:1, after construction, the slope will be stabilized by the placement of heavy riprap or by the installation of erosion control matting specifically rated by the manufacturer for use on a 1:1 slope. The riprap slope will be formed by placing heavy stone on a one foot thick layer of gravel that is covered by an approved filter fabric.

4. Diversion Swale
Runoff diversion swales may be provided in order to intercept sheet and concentrated flows above areas of cut or fill. The swales will direct runoff to sediment sumps or temporary settling basins. The swales will be approximately 5 feet wide and one foot deep. Straw bale diversion dikes may be installed on the downhill side of the swales to assist in containing the water flow.

5. Sediment Sumps
Sediment sumps are excavated depressions of 10 foot diameter and 2 foot depth. The sumps will collect runoff from unfinished drives and slopes and will allow sediment to settle out before flow continues to a detention area or siltation control barrier. Sediment sumps will be cleaned whenever the accumulated sediment has reached one half of the original depth of the sump.

6. Temporary Settling Basins
Temporary settling basins (TSB's)are larger excavations made at locations that will receive significant stormwater runoff flow. They are used to capture and detain stormwater in the construction phase to settle out some eroded material and to lessen the rate of flow of stormwater from construction phase work areas. Temporary settling basins are larger than sediment sumps and shall have silt fence or straw bale dikes at their entrance and exit to control flow. They shall be sized according to the DEP Stormwater management standards which requires that they have sufficient capacity to hold 1 inch of runoff from the watershed contributing flow to them. For example, a TSB receiving flow from 1 acre of land should have a volume capacity of at least 3,630 square feet. TSB's should have flocculant blocks and at least three layers of jute mesh matting at their outlet. TSB's should be cleaned out whenever the accumulated sediment has reached more than 6 inches deep. No TSB shall be located where the proposed infiltration structures are proposed.

7. Flocculants
If the capture of flows in sediment sumps and temporary settling basins does not sufficiently reduce the turbidity of runoff before it leaves the site, flocculant blocks shall be installed at the outlet of any sediment sump, TSB or swale discharge flow to the site's drainage system. Immediately downstream of the flocculant blocks, a suitable organic media such as jute mesh matting shall be installed over stone for runoff that has contacted the flocculant blocks to flow. This will allow capture of silts.

In addition, crystal flocculants may be used to reduce turbidity of captured runoff in sediment sumps and temporary settling basins.

SEQUENCE OF INSTALLATION AND CONSTRUCTION

The following is a sequence for the construction of the project. The actual schedule may vary somewhat from that stated if site or weather conditions require.

An example of a logical change to the schedule would be deviating from the sequence below to allow the laying of berms prior to a freeze in order to better control the site drainage.

1. The Developer will hold a preconstruction meeting with representatives of the Town of Southborough in order to review permits, procedures and construction methods.

2. The Developer will hold a preconstruction meeting with the Engineer, Contractor's employees and the Inspector in order to review permits, procedures and construction methods.

3. Establish the construction entrance to the site at the southwest corner of the lower parking lot on Lot A.

4. Install the site entrance mat in that location and install sediment control barriers at the limit of work as shown on the Erosion & Sediment Control Plans.

5. Cut trees as necessary for the proposed development but no further. Chip wood and then clear and grub where trees were cut. Grind stumps for use of the grindings as a temporary stabilization cover.

6. Stockpile and compact excavated loam in an area surrounded by staked straw bales or siltation fencing. The suggested location is in the area of proposed unit 25. Place the straw bales or fencing at least five feet from the base of the loam pile.

7. Begin earthwork to bring driveway areas to subgrade and unit areas to basement grades.

8. Begin installation of utilities and construction of townhouse units.

9. Make utility connections to townhouses under construction and install the new septic system.

10. Put down a base course of pavement and continue construction of the townhouse units and install the infiltration strutures as well as proposed retaining walls.

11. Permanently stabilize exposed slopes with 6 inches of loam and grass, erosion control matting, other vegetation and landscaping.

12. Finish townhouse construction including interiors only then put down a finish course of pavement.

13 Remove accumulated sediment and temporary erosion control measures after all slopes have been permanently stabilized and the risk of erosion has passed.

14. Prepare and submit an as–built survey of the work to the Town of Southborough.

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____.

_____

_____

_____

_____

_____

## SEPTIC SYSTEM DESIGN:

1) THE 32 PROPOSED UNITS WILL HAVE A TOTAL OF 68 BEDROOMS. UNDER TITLE 5, THIS CREATES A SEWAGE FLOW GENERATION OF 68X110=7480 GALLONS PER DAY.
2) PERCOLATION TESTS #'S 14, 16 AND 19 IN THE PROPOSED SOIL ABSORPTION SYSTEM AREA, HAD OFFICIALLY OBSERVED PERCOLATION RATES OF 5, 6 AND 20 MINUTES PER INCH. THE SYSTEM DESIGN WILL BE BASED ON A 20 MINUTE PER INCH PERCOLATION RATE WHICH, ACCORDING TO THE TABLE AT 310CMR 15.242(1)B GIVES A LONG TERM ACCEPTANCE RATE OF 0.58 GPD/S.F. TO THE PROPOSED SOIL ABSORPTION SYSTEM.
3) 7,480 GPD REQUIRES A SYSTEM SURFACE AREA OF 7,480/0.58 =12,897 S.F. USING 2' WIDE AND 2' DEEP TRENCHES, EACH 1' LENGTH OF TRENCH HAS 6 S.F. OF SURFACE AREA. SO 12,897/6=2,150 FEET OF TRENCH THAT IS REQUIRED.
4) OUR DESIGN WILL PROPOSE 39 TRENCHES EACH 56 FEET LONG, SPLIT 17 WEST AND 22 EAST OF A CENTRAL MANIFOLD FOR A TOTAL OF 2,184 FEET OF TRENCHES THAT WILL BE FED FROM A PUMP CHAMBER, WITH RESERVE TRENCHES IN BETWEEN.

## PARKING

32 TOWNHOUSE UNITS ARE PROPOSED, CONSISTING OF 28 TWO BEDOOM UNITS AND 4 THREE BEDROOM UNITS. EACH UNIT WILL HAVE A GARAGE SPACE AND A MIN. 18 FOOT DEEP PARKING SPACE IN ITS DRIVEWAY FOR 2 SPACES PER UNIT. IN ADDITION THERE WILL BE 11 GUEST PARKING SPACES IN TWO BLOCKS OFF THE MAIN DRIVEWAY, ONE NEAR STATION 5+00 AND ONE OFF THE CUL DE SAC CIRCLE. THIS IS A TOTAL OF 75 SPACES FOR 32 UNITS OR 2.34 PER UNIT.

## TRAFFIC:

THE 11TH EDITION OF THE ITE MANUAL CATEGORIZES A TOWNHOUSE STYLE UNITS AS MULTI–FAMILY LOW–RISE HOUSING UNITS, IT LAND USE CODE 220. THE ITE PROJECTS A TRAFFIC GENERATION FOR THIS USE OF 6.74 TRIPS PER DAY OR 216 TRIPS BY THE PROPOSED 32 UNITS.

THE ITE PROJECTS A TRAFFIC GENERATION OF 0.40 TRIPS PER UNIT IN THE AM PEAK HOUR AND 0.51 TRIPS PER UNIT IN THE PM PEAK HOURS WHICH, FOR THE 32 UNITS PROPOSED WOULD RESULT IN 13 TRIPS IN THE MORNING PEAK HOUR AND 16 TRIPS IN THE EVENING PEAK HOUR. THIS AMOUNTS TO ANOTHER CAR EVERY 4+ MINUTES IN THE MORNING PEAK HOUR AND EVERY 3+ MINUTES IN THE EVENING PEAK HOUR NEITHER OF WHICH IS SIGNIFICANT AGAINST THE EXISTING BACKGROUND TRAFFIC VOLUME ON ROUTE 9.

## WETLAND DELINEATION

WETLANDS SHOWN ON SITE WERE DELINEATED BY GODDARD CONSULTING, LLC AND THEN REVIEWED BY THE SOUTHBOROUGH CONSERVATION COMMISSION AND CONFIRMED IN THE ORDER OF CONDITIONS UNDER DEP FILE 290–1109 AND RECORDED AT THE WORCESTER DISTRICT REGISTRY OF DEEDS AT BOOK 69915 PAGE 137.

COMMONWEALTH OF MASSACHUSETTS
JAMES L. TETREAULT
CIVIL
No. 38548
PROFESSIONAL ENGINEER


EXPEDITED ENGINEERING, LLC
*Professional Engineers & Erosion Control Specialists*
118 Turnpike Road, 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com


| CLT. NO. | JOB NO. |
|---|---|
| 504 | 290–504 |
| DATE: NOVEMBER 20, 2024 | DWG NO. 250TURNPIKECURRENT |

REVISIONS

| DATE: | DESCRIPTION |
|---|---|
| 1/31/25 | TOWN REVIEW |
| 7/25/25 | TOWN REVIEW |

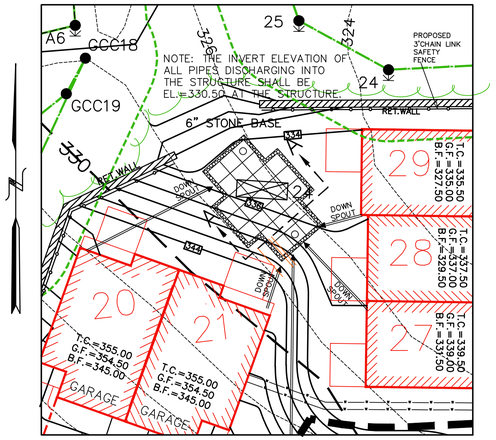
SCALE: AS NOTED

**SITE PLAN OF LAND**

AT 250 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.

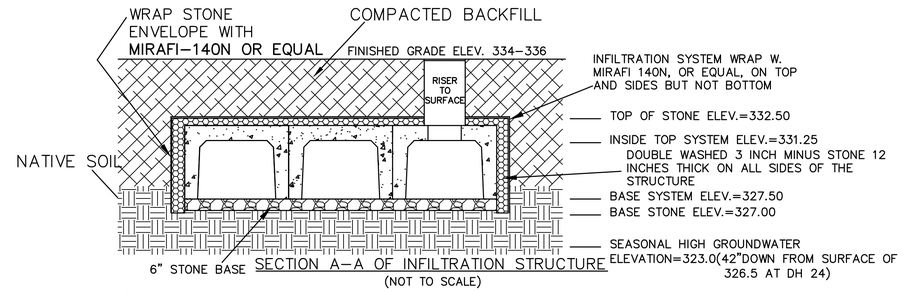
OWNER & APPLICANT:
FD 120 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

DETAIL SHEET D4




## INFILTRATION STRUCTURE

PLAN VIEW 1"=20'




SECTION A–A OF INFILTRATION STRUCTURE

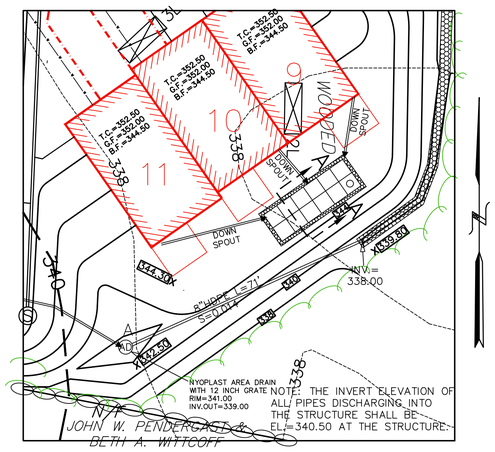
(NOT TO SCALE)

1) THE DETENTION/INFILTRATION STRUCTURE SHALL CONSIST OF 27 SHEA PRECAST 300 GALLON DRYWELLS (OR APPROVED EQUAL) EACH MEASURING 54"X54"X51"HIGH AND INSTALLED TO CREATE A STRUCTURE WITH AN OVERALL FOOTPRINT OF 589 SQ.FT. AND A HEIGH OF 5.5 FEET.
2) THE UNITS SHALL BE OPEN BOTTOMED.
3) THERE SHALL BE ONE FOOT OF DOUBLE WASHED CRUSHED STONE SURROUNDING THE INFILTRATION STRUCTURE ON ALL SIDES, SIX INCHES BELOW THEM AND 15 INCHES ABOVE THEM. IF UNSUITABLE MATERIALS SUCH AS FILL, MULCH, TOPSOIL OR SUBSOIL ARE DISCOVERED BELOW THE PROPOSED BASE STONE ELEVATION IN THE AREA OF THE SYSTEM, THAT UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH MORE DOUBLE WASHED CRUSHED STONE.
4) ACCESS PORTS SHALL BE INSTALLED AS SHOWN ON THE PLAN VIEW WITH A RISER INSTALLED TO BRING THE ACCESS TO THE SURFACE.
5) THIS STRUCTURE SHALL RECEIVE ALL THE ROOF RUNOFF FROM UNITS 20, 21 AND 29 AND THE BACK HALVES OF THE ROOFS OF UNITS 26, 27 AND 28 VIA DOWNSPOUTS PIPED BY 6"HDPE PIPES TO THE STRUCTURE.
6) THE INVERT ELEVATION OF ALL PIPES DISCHARGING INTO THIS STRUCTURE SHALL BE EL.=330.50 AT THE STRUCTURE.
7) INSTALL A 6"HDPE OVERFLOW OUTLET PIPE FROM THE TOP OF THE STRUCTURE TO THE NORTH AND DISCHARGING WEST OF THE RETAINING WALL.

## INFILTRATION STRUCTURE

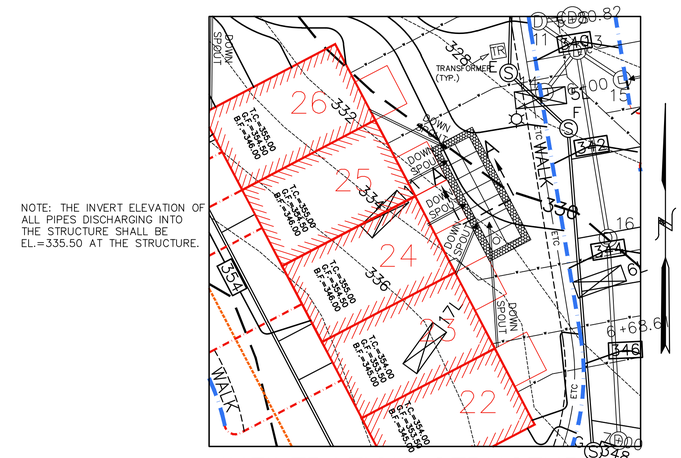
(NOT TO SCALE)

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____.



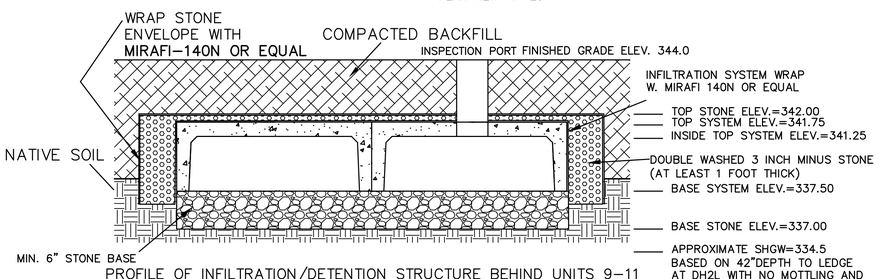

## INFILTRATION STRUCTURE

PLAN VIEW 1"=20'




## INFILTRATION STRUCTURE

PLAN VIEW 1"=20'




PROFILE OF INFILTRATION/DETENTION STRUCTURE BEHIND UNITS 9–11

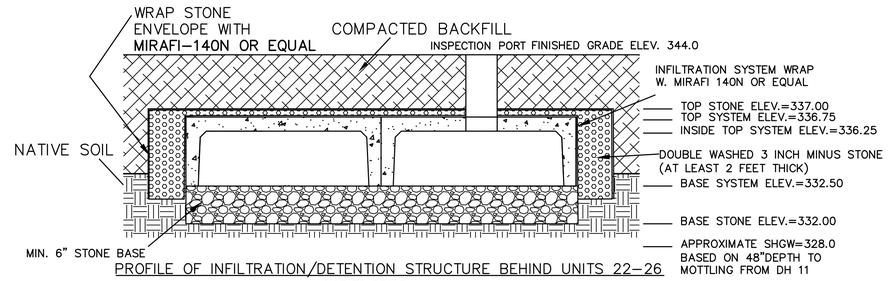
(NOT TO SCALE)

THE DETENTION/INFILTRATION STRUCTURE SHALL CONSIST OF 12 SHEA PRECASET 300 GALLON DRYWELLS (OR APPROVED EQUAL) EACH MEASURING 54"X54"X51"HIGH AND INSTALLED TO CREATE A STRUCTURE WITH AN OVERALL FOOTPRINT OF 270 SQ.FT. AND AN HEIGHT OF 5 FEET. THE UNITS SHALL BE OPEN BOTTOMED THERE SHALL BE ONE FOOT OF CRUSHED STONE SURROUNDING THE INFILTRATION STRUCTURE ON ALL SIDES AND 6 INCHES BELOW.

THE INFILTRATION STRUCTURE WILL RECEIVE DISCHARGE FROM THE DOWNSPOUTS OF ALL OF UNIT 9 AND THE BACKS OF UNITS 10 AND 11.

ANY FILL, TOPSOIL, SUBSOIL OR OTHER INAPPROPRIATE MATERIAL MUST BE REMOVED FROM BENEATH THE INFILTRATION STRUCTURE BEFORE STONE IS PLACED BENEATH THE UNITS.

INSTALL A 6 INCH HDPE OVERFLOW PIPE FROM THE TOP OF THE STRUCTURE THAT DISCHARGES AT THE BEGINNING OF THE STONE LINED DRAINAGE SWALE.




PROFILE OF INFILTRATION/DETENTION STRUCTURE BEHIND UNITS 22–26

(NOT TO SCALE)

THE DETENTION/INFILTRATION STRUCTURE SHALL CONSIST OF 14 SHEA PRECASET 300 GALLON DRYWELLS (OR APPROVED EQUAL) EACH MEASURING 54"X54"X51"HIGH AND INSTALLED TO CREATE A STRUCTURE WITH AN OVERALL FOOTPRINT OF 270 SQ.FT. AND AN HEIGHT OF 5 FEET. THE UNITS SHALL BE OPEN BOTTOMED THERE SHALL BE ONE FOOT OF CRUSHED STONE SURROUNDING THE INFILTRATION STRUCTURE ON ALL SIDES AND 6 INCHES BELOW.

THE INFILTRATION STRUCTURE WILL RECEIVE DISCHARGE FROM THE DOWNSPOUTS ON THE BACKS OF UNITS 22 THROUGH 26.
ANY FILL, TOPSOIL, SUBSOIL OR OTHER INAPPROPRIATE MATERIAL MUST BE REMOVED FROM BENEATH THE INFILTRATION STRUCTURE BEFORE STONE IS PLACED BENEATH THE UNITS.

INSTALL A 6" HDPE OVERFLOW PIPE ON TOP OF THE STRUCTURE THAT DISCHARGES TO CB 14.


COMMONWEALTH OF MASSACHUSETTS
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118 Turnpike Road, 300, Southborough, MA 01772
Telephone (508)-399-9993 james@expeditedengineers.com


| CLT. NO. 504 | JOB NO. 290–504 |
|---|---|
| DATE: NOVEMBER 20, 2024 | DWG NO. 250TURNPIKECURRENT |

REVISIONS

| DATE: | DESCRIPTION |
|---|---|
| 1/31/25 | TOWN REVIEW |
| 7/25/25 | TOWN REVIEW |

SCALE: AS NOTED

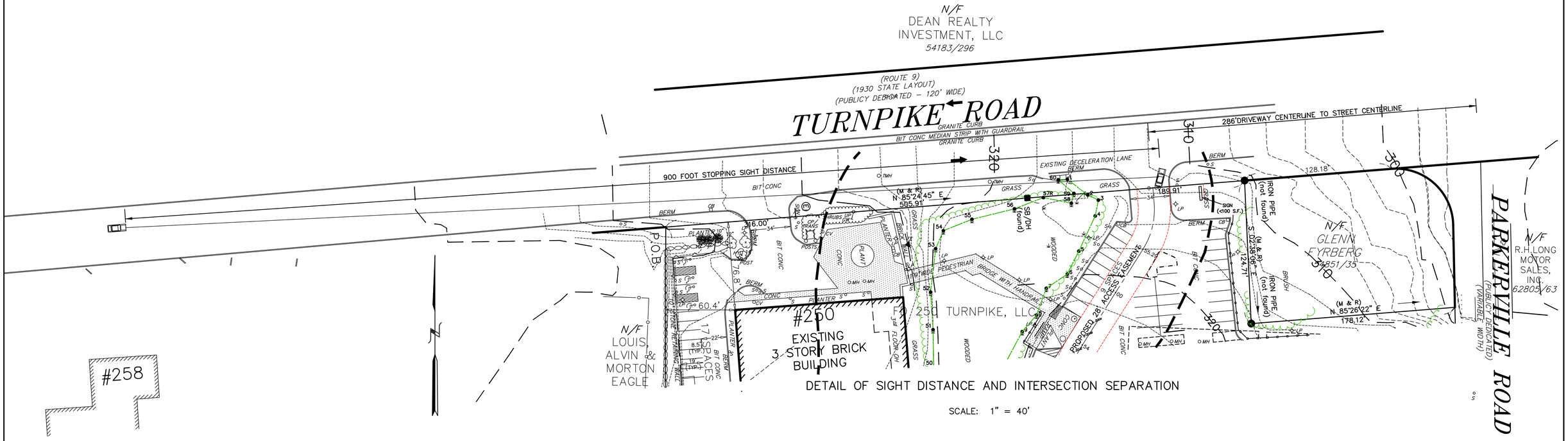
# SITE PLAN OF LAND

AT 250 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.

OWNER & APPLICANT:

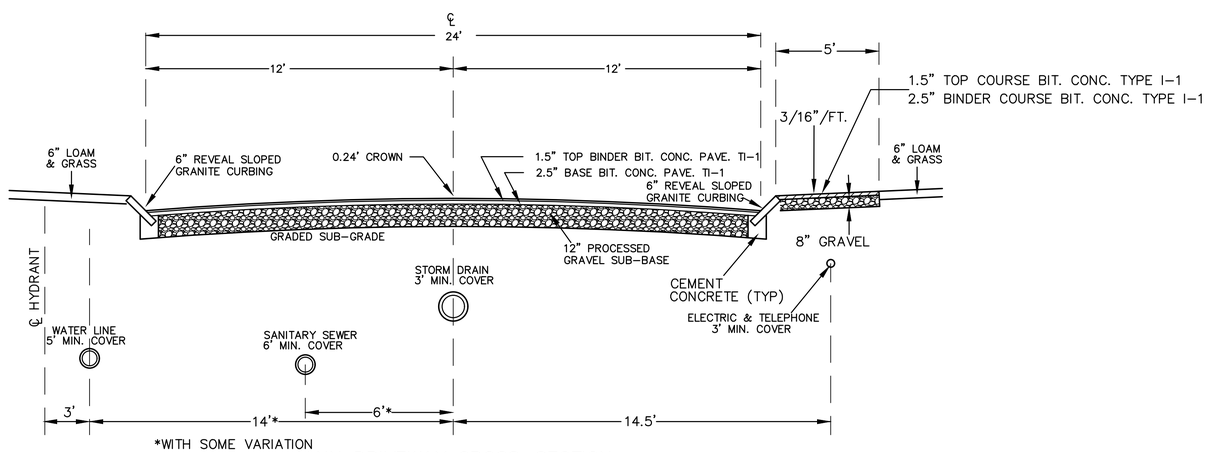
FD 250 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

DETAIL SHEET D5




DETAIL OF SIGHT DISTANCE AND INTERSECTION SEPARATION

SCALE: 1" = 40'




*WITH SOME VARIATION

MAIN DRIVEWAY CROSS-SECTION

NOT TO SCALE

COMMONWEALTH OF MASSACHUSETTS
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| CLT. NO. | JOB NO. |
|---|---|
| 504 | 290-504 |
| DATE: JANUARY 31, 2025 | DWG NO. 250TURNPIKECURRENT |

REVISIONS

| DATE: | DESCRIPTION |
|---|---|
| 7/25/25 | TOWN REVIEW |

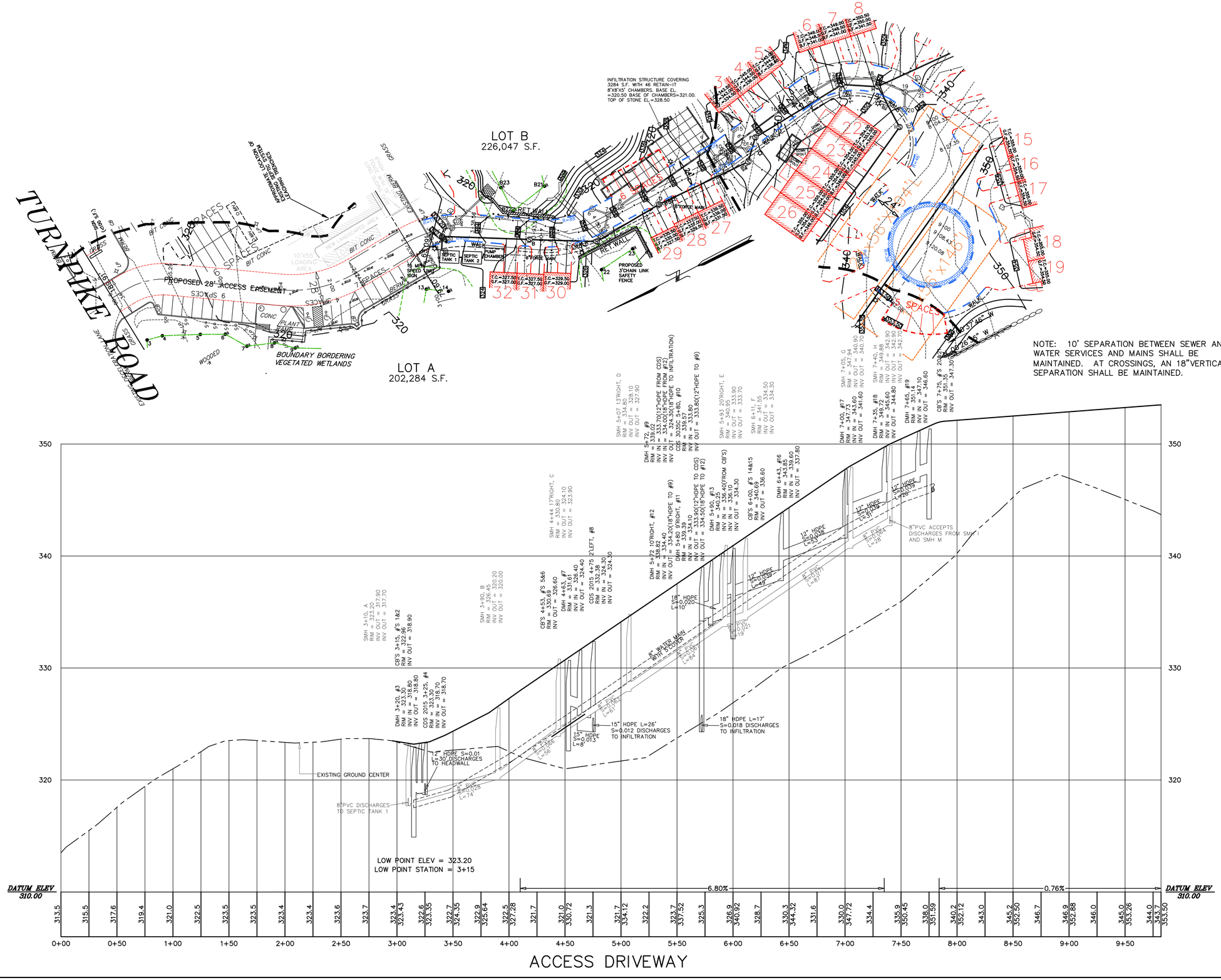
SCALE: AS NOTED

# SITE PLAN OF LAND

AT 250 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.

OWNER & APPLICANT:
FD 250 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

DETAIL SHEET D6




KEY

- 2' CONTOUR
- 10' CONTOUR
- X 123.1 EXISTING SPOT GRADE
- PROPOSED CONTOUR
- PROPOSED CURB
- PROPOSED DRAIN MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED SEWER MANHOLE
- EXISTING UTILITY POLE
- PROPOSED POLE WITH LIGHT
- PROPOSED ELECTRIC CONDUIT
- PROPOSED GUARD RAIL
- PROPOSED RETAINING WALL
- STONE WALL

COMPREHENSIVE PERMIT PLAN APPROVED BY THE SOUTHBOROUGH ZONING BOARD OF APPEALS ON _____.

COMMONWEALTH OF MASSACHUSETTS
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| CLT. NO. | JOB NO. |
|---|---|
| 502 | 245-502 |
| DATE: JANUARY 31, 2025 | DWG NO. 250TURNPIKECURRENT |

REVISIONS

| DATE: | DESCRIPTION |
|---|---|
| 7/25/25 | TOWN REVIEW |

HORIZONTAL SCALE: 1 INCH = 40 FEET
VERTICAL SCALE: 1 INCH = 4 FEET
FEET 0 10 20 40 80 120
METERS 0 5 10 20 30 40

# SITE PLAN OF LAND

AT 250 TURNPIKE ROAD
IN
SOUTHBOROUGH, MASS.

OWNER & APPLICANT:
FD 250 TURNPIKE, LLC
118 TURNPIKE ROAD, SUITE 300
SOUTHBOROUGH, MA 01772

PLAN AND PROFILE OF ACCESS DRIVEWAY
P1