

REFERENCE IS MADE TO MAPS TITLED:

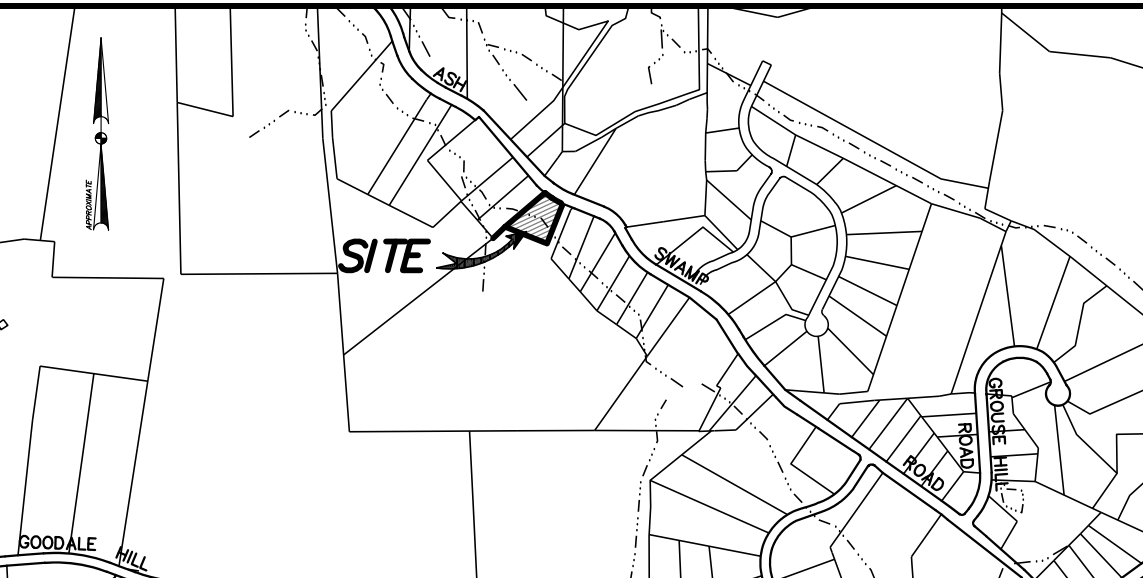
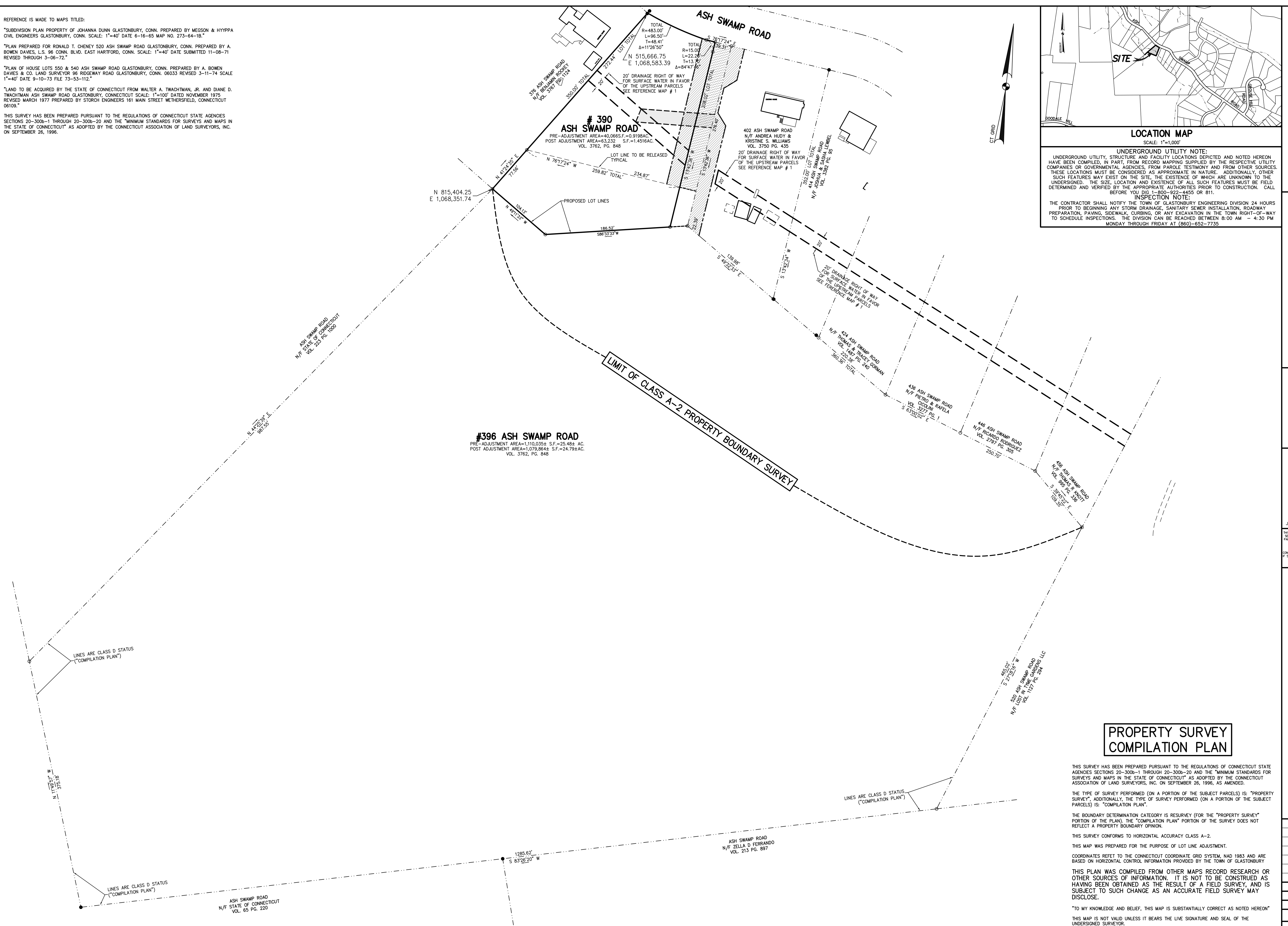
"SUBDIVISION PLAN PROPERTY OF JOHANNA DUNN GLASTONBURY, CONN. PREPARED BY MEGSON & HYYPPA CIVIL ENGINEERS GLASTONBURY, CONN. SCALE: 1"=40' DATE 6-16-65 MAP NO. 273-64-1B."

"PLAN PREPARED FOR RONALD T. CHENEY 520 ASH SWAMP ROAD GLASTONBURY, CONN. PREPARED BY A. BOWEN DAVES, L.S. 96 CONN. BLVD. EAST HARTFORD, CONN. SCALE: 1"=40' DATE SUBMITTED 11-08-71 REVISED THROUGH 3-06-72."

"PLAN OF HOUSE LOTS 550 & 540 ASH SWAMP ROAD GLASTONBURY, CONN. PREPARED BY A. BOWEN DAVES & CO. LAND SURVEYOR 96 RIDGEWAY ROAD GLASTONBURY, CONN. 06033 REVISED 3-11-74 SCALE 1"=40' DATE 9-10-73 FILE 73-53-112."

"LAND TO BE ACQUIRED BY THE STATE OF CONNECTICUT FROM WALTER A. TWACHTMAN, JR. AND DIANE D. TWACHTMAN ASH SWAMP ROAD GLASTONBURY, CONNECTICUT SCALE: 1"=100' DATED NOVEMBER 1975 REVISED MARCH 1977 PREPARED BY STORCH ENGINEERS 161 MAIN STREET WETHERSFIELD, CONNECTICUT 06098."

"THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996."



**LOCATION MAP**  
SCALE: 1"=1,000'

**UNDERGROUND UTILITY NOTE:**  
UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROLE TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO THE UNDERSIGNED. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455 OR 811.

**INSPECTION NOTE:**  
THE CONTRACTOR SHALL NOTIFY THE TOWN OF GLASTONBURY ENGINEERING DIVISION 24 HOURS PRIOR TO BEGINNING ANY STORM DRAINAGE, SANITARY SEWER INSTALLATION, ROADWAY PREPARATION, PAVING, SIDEWALK, CURBING, OR ANY EXCAVATION IN THE TOWN RIGHT-OF-WAY TO SCHEDULE INSPECTIONS. THE DIVISION CAN BE REACHED BETWEEN 8:00 AM - 4:30 PM MONDAY THROUGH FRIDAY AT (860)-652-7735.

SCALE IN FEET  
0 60 120

CT GRID

**DUTTON ASSOCIATES, LLC**  
LAND SURVEYORS AND CIVIL ENGINEERS  
67 EASTERN BOULEVARD  
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TEL: 860-633-8401 FAX: 860-633-8851  
EMAIL: JIM@DUTTONASSOCIATESLLC.COM

**#396 ASH SWAMP ROAD**  
PRE-ADJUSTMENT AREA=1,110,035± S.F.=25.48± AC.  
POST ADJUSTMENT AREA=1,079,864± S.F.=24.79± AC.  
VOL. 3762, PG. 848

**LIMIT OF CLASS A-2 PROPERTY BOUNDARY SURVEY**

JAMES W. DUTTON, L.S. #70074

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**PROPERTY SURVEY - COMPILATION PLAN  
PLAN OF LOT LINE ADJUSTMENT  
390 & 396 ASH SWAMP ROAD**

**ZK BUILDERS**  
GLASTONBURY, CONNECTICUT

THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996, AS AMENDED.

THE TYPE OF SURVEY PERFORMED (ON A PORTION OF THE SUBJECT PARCELS) IS "PROPERTY SURVEY", ADDITIONALLY, THE TYPE OF SURVEY PERFORMED (ON A PORTION OF THE SUBJECT PARCELS) IS: "COMPILATION PLAN".

THE BOUNDARY DETERMINATION CATEGORY IS RESURVEY (FOR THE "PROPERTY SURVEY" PORTION OF THE PLAN), THE "COMPILATION PLAN" PORTION OF THE SURVEY DOES NOT REFLECT A PROPERTY BOUNDARY OPINION.

THIS SURVEY CONFORMS TO HORIZONTAL ACCURACY CLASS A-2.

THIS MAP WAS PREPARED FOR THE PURPOSE OF LOT LINE ADJUSTMENT.

COORDINATES REFET TO THE CONNECTICUT COORDINATE GRID SYSTEM, NAD 1983 AND ARE BASED ON HORIZONTAL CONTROL INFORMATION PROVIDED BY THE TOWN OF GLASTONBURY.

THIS PLAN WAS COMPILED FROM OTHER MAPS RECORD RESEARCH OR OTHER SOURCES OF INFORMATION. IT IS NOT TO BE CONSTRUED AS HAVING BEEN OBTAINED AS THE RESULT OF A FIELD SURVEY, AND IS SUBJECT TO SUCH CHANGE AS AN ACCURATE FIELD SURVEY MAY DISCLOSE.

"TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON"

REVISIONS:

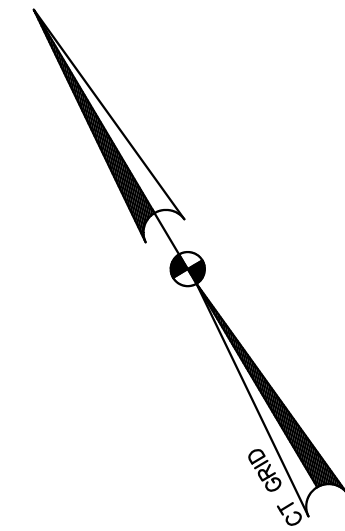
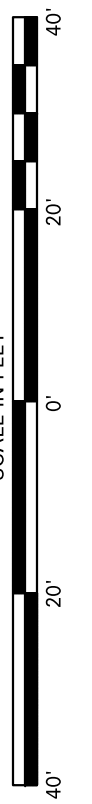

DATE: 03/14/2024  
SCALE: 1" = 60'  
SHEET 1 of 7

**A-22-323-LLA1**  
FILE: 22-323.DWG



**UNDERGROUND UTILITY NOTE:**  
 UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROLE TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO THE UNDERSIGNED. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455 OR 811.

**INSPECTION NOTE:**  
 THE CONTRACTOR SHALL NOTIFY THE TOWN OF GLASTONBURY ENGINEERING DIVISION 24 HOURS PRIOR TO BEGINNING ANY STORM DRAINAGE, SANITARY SEWER INSTALLATION, ROADWAY PREPARATION, PAVING, SIDEWALK, CURBING, OR ANY EXCAVATION IN THE TOWN RIGHT-OF-WAY TO SCHEDULE INSPECTIONS. THE DIVISION CAN BE REACHED BETWEEN 8:00 AM - 4:30 PM MONDAY THROUGH FRIDAY AT (860)-652-7735.



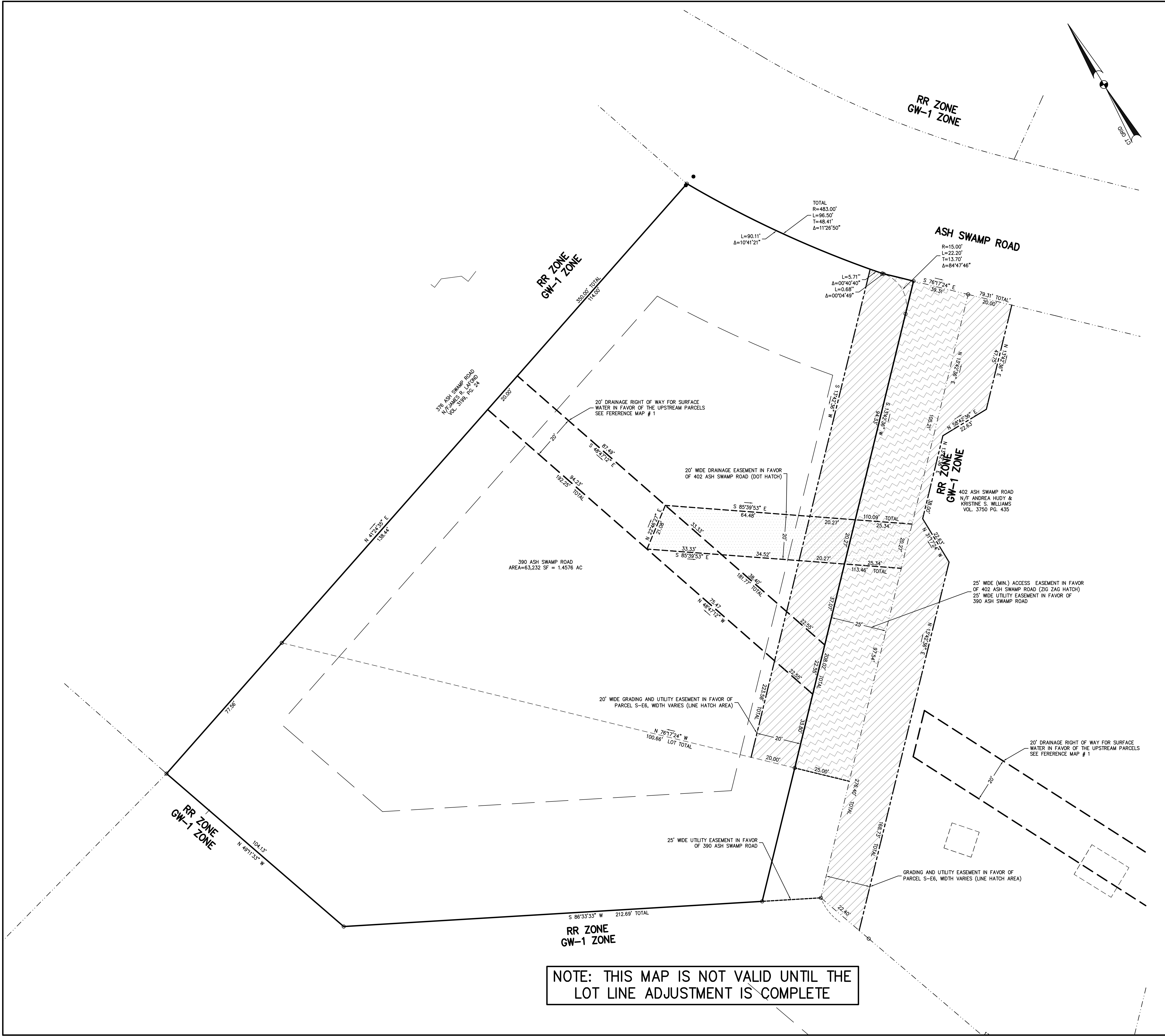
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**ZONING LOCATION SURVEY PLOT PLAN**  
**390 ASH SWAMP ROAD**  
 PREPARED FOR  
**ZK BUILDERS**  
 GLASTONBURY, CONNECTICUT

REVISIONS:

DATE: 03/14/2024  
 SCALE: 1" = 20'  
 SHEET 3 of 7  
**A-22-323-S1**  
 FILE: 22-323.DWG



**NOTE: THIS MAP IS NOT VALID UNTIL THE LOT LINE ADJUSTMENT IS COMPLETE**

**LEGEND TO SOIL TYPES**

- 37c MANCHESTER GRAVELLY SANDY LOAM 3-15%
- 37e MANCHESTER GRAVELLY SANDY LOAM 15-45%
- Ud UDORTHETA, SMOOTHES

**UNDERGROUND UTILITY NOTE:**  
 UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROLE TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE EXISTENCE OF WHICH ARE UNKNOWN TO THE UNDERSIGNED. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455 OR 811.

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**LEGEND**

- IRON PIN
- CONCRETE MONUMENT
- PROPERTY LINE
- ABUTTING PROPERTY LINES
- EASEMENT LINE
- BUILDING LINE
- GROUND CONTOURS
- SPOT ELEVATION
- TREE LINE
- TREE/SHRUB
- SIGN
- LIGHT POLE
- BUILDINGS
- ROOF OVERHANG
- STEPS/HATCHWAY
- CONCRETE PAVEMENT
- BITUMINOUS PAVEMENT
- BITUMINOUS CURB
- WETLANDS LIMIT
- BUFFER LIMIT
- WATERCOURSE
- STORM SEWERS
- FOUNDATION DRAIN
- UTILITIES (ELEC, TEL, TV)
- SEPTIC TANK
- DISTRIBUTION BOX
- LEACHING TRENCH
- TEST PIT LOCATION
- WELL

**ABBREVIATIONS**

- |            |                                |
|------------|--------------------------------|
| CONC.      | CONCRETE                       |
| BIT.       | BITUMINOUS                     |
| WLK.       | WALK                           |
| VOL.       | VOLUME                         |
| P/C        | PAGE                           |
| N/F        | NOW OR FORMERLY                |
| BCLC       | BITUMINOUS CONCRETE LIP CURB   |
| GC         | GRANITE CURB                   |
| T.F.       | TOP OF FRAME                   |
| T.G.       | TOP OF GRATE                   |
| INV.       | INVERT                         |
| F.L.       | FLOW LINE                      |
| SMH        | SANITARY MANHOLE               |
| C.B.       | CATCH BASIN                    |
| A.K.A.     | ALSO KNOWN AS                  |
| F.Y.       | FRONT YARD                     |
| S.Y.       | SIDE YARD                      |
| R.Y.       | REAR YARD                      |
| RET.       | RETAINING                      |
| EXIST.     | EXISTING                       |
| HYD.       | HYDRANT                        |
| W.G.       | WATER GATE                     |
| SNET       | SOUTHERN NEW ENGLAND TELEPHONE |
| CL&P       | CONNECTICUT LIGHT & POWER      |
| W.L.       | WETLANDS                       |
| ML         | TOP FOUNDATION ELEVATION       |
| BSMT. FLR. | BASEMENT FLOOR ELEVATION       |
| GAR. FLR.  | GARAGE FLOOR ELEVATION         |
| PLA        | PRIMARY LEACHING AREA          |
| RLA        | RESERVE LEACHING AREA          |

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JAMES W. DUTTON, L.S. #70074

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**TOPOGRAPHIC SURVEY  
 PLOT PLAN  
 390 ASH SWAMP ROAD  
 PREPARED FOR  
 ZK BUILDERS  
 GLASTONBURY, CONNECTICUT**

THIS SURVEY HAS BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20 AND THE "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" AS ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996.

THE TYPE OF SURVEY PERFORMED IS A TOPOGRAPHIC SURVEY.

THIS MAP DOES NOT REFLECT A PROPERTY BOUNDARY OPINION

THIS SURVEY CONFORMS TO HORIZONTAL ACCURACY CLASS A-2.

THIS MAP CONFORMS TO VERTICAL ACCURACY CLASS T-2.

THIS SURVEY CONFORMS TO TOPOGRAPHIC ACCURACY CLASS T-2

THIS MAP WAS PREPARED FOR THE PURPOSE OF LOT DEVELOPMENT.

WETLAND LIMITS DELINEATED IN THE FIELD BY IAN COLE, CERTIFIED SOILS SCIENTIST AND WERE FIELD LOCATED BY DUTTON ASSOCIATES.

"TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON"  
 THIS MAP IS NOT VALID UNLESS IT BEARS THE LIVE SIGNATURE AND SEAL OF THE UNDERSIGNED SURVEYOR.

**DEVELOPER:**  
 ZK BUILDERS  
 RUSSELL KACPERSKI  
 590 WETHERSFIELD ROAD  
 BERLIN, CT 06037  
 860-538-2727  
 ZKBUILDERS@GMAIL.COM

REVISIONS:

DATE: 03/14/2024

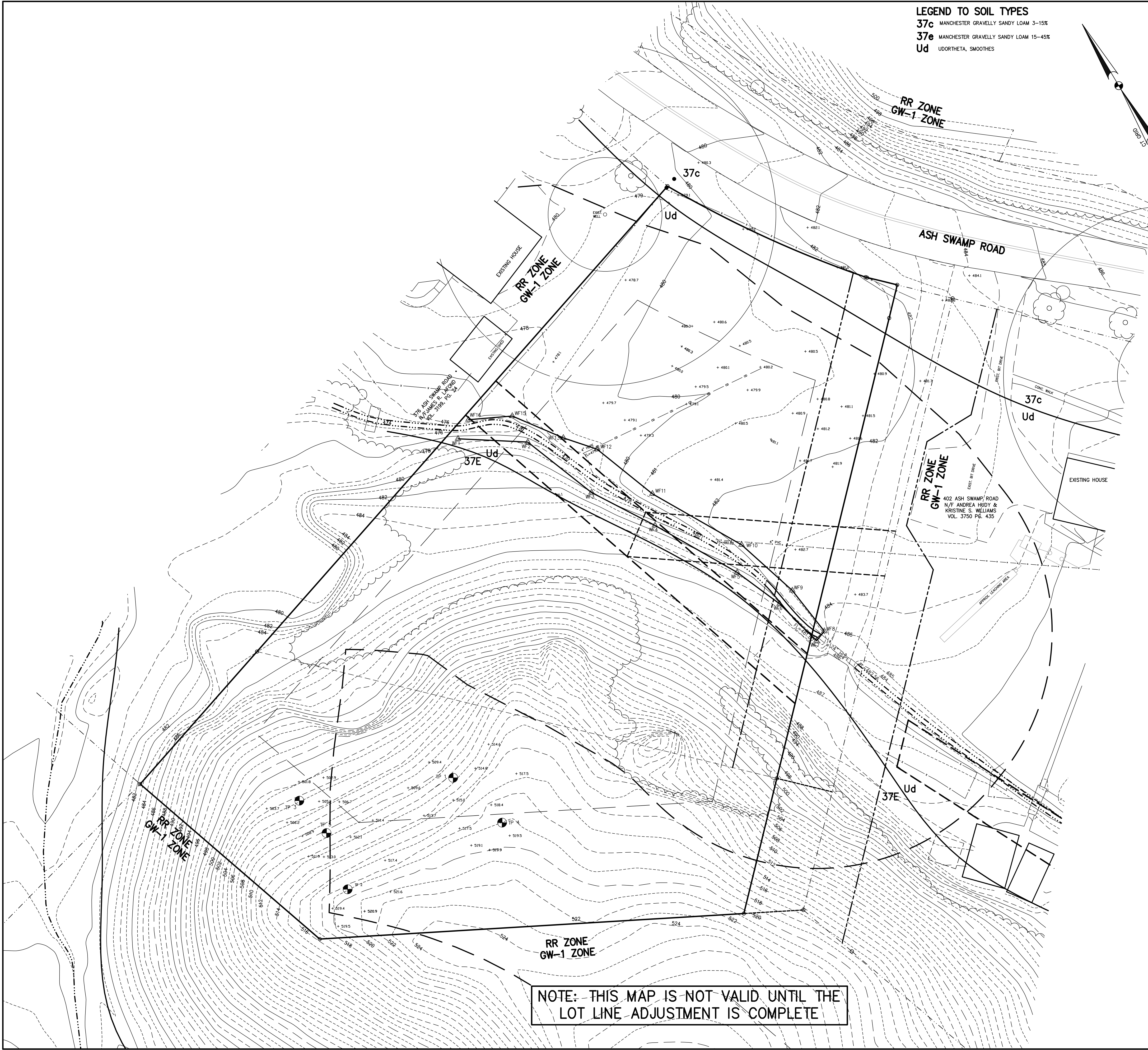
SCALE: 1" = 20'

SHEET 4 of 7

**A-22-323-S2**

FILE: 22-323.DWG

**NOTE: THIS MAP IS NOT VALID UNTIL THE LOT LINE ADJUSTMENT IS COMPLETE**







**PERMANENT VEGETATIVE COVER:**

GENERAL: THE PURPOSE OF PERMANENT VEGETATIVE COVER IS TO STABILIZE EXPOSED SOIL, REDUCE DAMAGE FROM WIND & WATER EROSION AND ENHANCE THE ENVIRONMENT.

TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED ON ALL SOIL STOCKPILE AREAS WHICH WILL BE IN PLACE FOR MORE THAN 21 DAYS BETWEEN AUGUST 1 AND JUNE 15.

PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED AS SOON AS POSSIBLE ON AREAS WHERE CONSTRUCTION HAS BEEN COMPLETED.

PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED BETWEEN THE PRIME SEEDING DATES OF APRIL 15 THROUGH JUNE 15 AND AUGUST 15 THROUGH SEPTEMBER 15.

IF TEMPORARY VEGETATIVE COVER CANNOT BE ESTABLISHED BETWEEN THE PRIME SEEDING DATES, THE AREA SHALL BE STABILIZED TO THE EXTENT POSSIBLE WITH TEMPORARY MULCH UNTIL THE NEXT PRIME SEEDING DATE.

REFER TO THE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL INFORMATION.

**SITE PREPARATION:**

- 1. APPLICABLE EROSION AND SEDIMENTATION CONTROLS (SEDIMENT BARRIERS, ETC.) SHALL BE INSTALLED PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
2. REMOVE LOOSE ROCK AND LARGE STONES, DEBRIS, TRASH, STUMPS AND OTHER NOXIOUS MATERIALS.
3. UNLESS HYDROSEEDED, APPLY LIME PER SOIL TEST OR AT THE RATE OF 135 LB PER 1000 S.F.
4. UNLESS HYDROSEEDED, APPLY FERTILIZER PER SOIL TEST OR AT THE RATE OF 7.5 LB PER 1000 S.F. OF 10-10-10 FERTILIZER AND 7 LB PER 1000 S.F. OF 38-0-0 OF SLOW RELEASE NITROGEN FOR TOPDRESSING.
5. UNLESS HYDROSEEDED, LIME AND FERTILIZER SHALL BE WORKED INTO SOIL TO A DEPTH OF 4".

WHEN HYDROSEEDING, THE SOIL SHALL BE TILLED AS DESCRIBED BELOW. LIME AND FERTILIZER MAY BE APPLIED SIMULTANEOUSLY WITH THE SEED.

- 6. TILLAGE SHALL RESULT IN A UNIFORM CONTOUR, FREE FROM DEPRESSIONS AND WATER POCKETS.

**SEEDING:**

- 1. SELECT AN APPROPRIATE SEED MIXTURE FROM THE LIST BELOW. ALTERNATE SEED MIXES SHALL BE APPROVED BY THE ENVIRONMENTAL PLANNER. APPLY PROPER INOCULANT WHEN USING LEGUME SEED.
2. SEED SHALL BE APPLIED UNIFORMLY BY BROADCASTING, DRILLING OR HYDRAULIC APPLICATION.
3. UNLESS HYDROSEEDED OR "MULTIPACKER" TYPE SEEDER IS USED, COVER THE SEEDS WITH NOT MORE THAN 1/4 INCH OF SOIL. THE SEEDBED SHALL BE FIRMED FOLLOWING SEEDING WITH A ROLLER OR LIGHT DRAG.
4. UNLESS HYDROSEEDED, APPLY MULCH AS REQUIRED IMMEDIATELY AFTER SEEDING.
5. SEEDING SHALL OCCUR BETWEEN APRIL 15 TO JUNE 15 AND / OR AUGUST 15 TO SEPTEMBER 15.
6. WHEN HYDROSEEDING, SEEDING RATES SHALL BE INCREASED BY 10 % (400% FOR LEGUMES).

FIBER MULCH SHALL BE USED WHEN HYDROSEEDING EXCEPT FOR CRITICAL AREAS WHICH SHALL BE MULCHED WITH STRAW MULCH.

**RECOMMENDED SEED MIXES:**

SHADY SITE: CREEPING RED FESCUE - 1.10 LB/1000 S.F. PERENNIAL RYEGRASS - 0.10 LB/1000 S.F.

SUNNY / PARTIALLY SUNNY SITE: KENTUCKY BLUEGRASS - 0.50 LB/1000 S.F. CREEPING RED FESCUE - 0.50 LB/1000 S.F. PERENNIAL RYEGRASS - 0.10 LB/1000 S.F.

DRY SITES: CREEPING RED FESCUE - 1.00 LB/1000 S.F. TALL FESCUE - 0.50 LB/1000 S.F.

**MULCHING:**

GENERAL: THE PURPOSE OF MULCHING IS TO PROTECT THE SOIL, CONTROL RUNOFF AND PROMOTE PLANT GROWTH.

ALL AREAS WHICH HAVE BEEN TEMPORARILY OR PERMANENTLY SEEDED SHALL BE MULCHED IMMEDIATELY FOLLOWING SEEDING.

MULCH SHALL BE USED ON ALL DISTURBED AREAS FOR PROTECTION FROM EROSION WHICH WILL BE EXPOSED FOR MORE THAN 21 DAYS AND CANNOT BE SEEDED WITHIN THE PRIME SEEDING DATES.

MATERIALS: THE MATERIALS USED FOR MULCHING SHALL BE STRAW OR HAY FREE FROM COARSE MATTER AND WEEDS.

WHEN HYDROSEEDING, MULCH SHALL BE APPLIED SIMULTANEOUSLY WITH THE SEED. MULCH MATERIAL AND APPLICATION RATE SHALL BE AS RECOMMENDED BY THE MANUFACTURER.

APPLICATION: MULCH SHALL BE APPLIED UNIFORMLY BY HAND OR BLOWER AT A RATE OF 90 LB/1000 S.F.

CRITICAL AREAS (SLOPES OVER 3 HORIZ. TO 1 VERT.) AND/OR AREAS IDENTIFIED ON THE PLAN SHALL BE MULCHED WITH HAY OR STRAW MULCH.

**ANCHORING:**

- 1. IF REQUIRED, MULCH SHALL BE ANCHORED IMMEDIATELY FOLLOWING APPLICATION.
2. STRAW AND HAY MULCH ON SLOPES IN EXCESS OF 5% SLOPE AND/OR AREAS AS DIRECTED BY THE ENVIRONMENTAL PLANNER SHALL BE ANCHORED IN ACCORDANCE WITH CHAPTER 7 OF THE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, LATEST EDITION.

**TOPSOILING:**

MATERIALS: TOPSOIL SHALL BE FRIABLE AND LOAMY (LOAM, SANDY LOAM OR SILT LOAM) AND SHALL BE FREE OF DEBRIS, TRASH, STUMPS, ROCKS, ROOTS AND NOXIOUS WEEDS. IT SHALL GIVE EVIDENCE OF BEING ABLE TO SUPPORT HEALTHY VEGETATION AND CONTAIN NO SUBSTANCE THAT IS POTENTIALLY TOXIC TO PLANT GROWTH.

ALL TOPSOIL SHALL BE TESTED BY A RECOGNIZED LABORATORY AND SHALL MEET THE FOLLOWING REQUIREMENTS: ORGANIC MATTER: NOT LESS THAN 1.5% BY WEIGHT. PH RANGE: 6.0-7.5 (IF LESS THAN 6.0, LIME SHALL BE APPLIED AS REQUIRED). SOLUBLE SALTS: SHALL NOT EXCEED 500 ppm.

APPLICATION: APPLICABLE EROSION AND SEDIMENTATION CONTROLS (SEDIMENT BARRIERS, ETC.) SHALL BE IN PLACE AND IN GOOD CONDITION PRIOR TO PLACING TOPSOIL.

TOPSOIL SHALL NOT BE APPLIED WHILE IN A FROZEN OR MUDDY CONDITION.

TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED TO A MINIMUM COMPACTED DEPTH OF 4", SURFACE IRREGULARITIES SHALL BE CORRECTED AT TIME OF PLACEMENT TO AVOID DEPRESSIONS AND WATER POCKETS.

TOPSOIL SHALL BE COMPACTED ONLY ENOUGH TO ENSURE GOOD CONTACT WITH THE UNDERLYING SOIL AND TO OBTAIN A UNIFORM SEEDBED. OVER COMPACTING SHALL BE AVOIDED.

**TRENCH DE-WATERING:**

GENERAL: THE PURPOSE OF TRENCH DE-WATERING IS TO PERMIT THE INSTALLATION OF UNDERGROUND UTILITY STRUCTURES AND SERVICES IN A STABLE ENVIRONMENT. THE EROSION & SEDIMENTATION CONCERN IS THE OUTFLOW FROM THE DE-WATERING OPERATION.

CONTROL METHOD: IF A SMALL AMOUNT OF WATER IS ENCOUNTERED, THE OUTFLOW SHALL BE PLACED SUCH THAT THE WATER IS ENCOURAGED TO DISPERSE OVER UNDISTURBED EXISTING VEGETATION, UPSTREAM OF A SEDIMENT BARRIER.

IF LARGE AMOUNTS OF DE-WATERING IS REQUIRED, THE PUMP OUTLET SHALL BE DIRECTED INTO A 6" DIAMETER PERFORATED PIPE 50 FEET LONG (MIN.) LAID LEVEL ON EXISTING GRADE, WHERE THE WATER WILL FLOW ONTO UNDISTURBED EXISTING VEGETATION UPSTREAM OF A SEDIMENT BARRIER.

**TEMPORARY VEGETATIVE COVER:**

GENERAL: THE PURPOSE OF TEMPORARY VEGETATIVE COVER IS TO STABILIZE EXPOSED SOIL AND REDUCE WIND AND WATER EROSION.

TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED ON ALL SOIL STOCKPILE AREAS WHICH WILL BE IN PLACE FOR MORE THAN 21 DAYS BETWEEN AUGUST 1 AND JUNE 15.

TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED ON AREAS WHERE CONSTRUCTION HAS BEEN COMPLETED AND PERMANENT STABILIZATION WILL NOT TAKE PLACE WITHIN 21 DAYS BETWEEN AUGUST 1 AND JUNE 15.

IN ALL CASES, PERMANENT STABILIZATION SHALL BE COMPLETED WITHIN 12 MONTHS.

IF TEMPORARY VEGETATIVE COVER CANNOT BE ESTABLISHED BETWEEN THE PRIME SEEDING DATES INDICATED BELOW, THE AREA SHALL BE STABILIZED TO THE EXTENT POSSIBLE WITH TEMPORARY MULCH.

REFER TO THE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, LATEST ADDITION, FOR ADDITIONAL INFORMATION.

**SITE PREPARATION:**

- 1. APPLICABLE EROSION AND SEDIMENTATION CONTROLS (SEDIMENT BARRIERS, ETC.) SHALL BE INSTALLED PRIOR TO ESTABLISHMENT OF TEMPORARY VEGETATIVE COVER.
2. REMOVE LOOSE ROCK AND LARGE STONES, DEBRIS, TRASH, STUMPS AND OTHER NOXIOUS MATERIALS.
3. APPLY LIME PER SOIL TEST OR AT THE RATE OF 50 LB PER 1000 S.F.
4. APPLY FERTILIZER PER SOIL TEST OR AT THE RATE OF 7 LB PER 1000 S.F. OF 10-10-10 FERTILIZER.
5. UNLESS HYDROSEEDED, LIME AND FERTILIZER SHALL BE WORKED INTO SOIL TO A DEPTH OF 4".
6. TILLAGE SHALL RESULT IN A UNIFORM CONTOUR, FREE FROM DEPRESSIONS AND WATER POCKETS.

**SEEDING:**

- 1. APPLY ANNUAL RYEGRASS (OR APPROVED EQUAL) AT A RATE OF 1 LB PER 1000 S.F.
2. SEED SHALL BE APPLIED UNIFORMLY BY BROADCASTING, DRILLING OR HYDRAULIC APPLICATION.
3. UNLESS HYDROSEEDED, SEEDS SHALL BE COVERED WITH NOT MORE THAN 1/4 INCH OF SOIL.
4. APPLY MULCH AS REQUIRED IMMEDIATELY AFTER SEEDING.
5. SEEDING SHALL OCCUR BETWEEN APRIL 1 TO JUNE 15 AND / OR AUGUST 1 TO OCTOBER 1.

**GENERAL E & S NOTES:**

ALL EROSION AND SEDIMENTATION CONTROL METHODS SHALL BE IN ACCORDANCE WITH THE CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENTATION CONTROL, LATEST EDITION UNLESS SPECIFICALLY NOTED OTHERWISE ON THESE PLANS.

EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED WITHIN THE PROPER SEQUENCE DURING CONSTRUCTION (I.E. SEDIMENT BARRIERS INSTALLED DOWNSLOPE OF AREAS TO BE DISTURBED PRIOR TO DISTURBANCE).

ALL DISTURBED AREAS SHALL BE COVERED WITH A MINIMUM OF 4 INCHES OF TOPSOIL, SEEDED AND MULCHED IMMEDIATELY UPON COMPLETION OF FINAL GRADING.

ALL SOIL STOCKPILE AREAS SHALL BE ENCIRCLED WITH SEDIMENT BARRIERS. TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED ON ANY STOCKPILE AREA WHICH IS TO REMAIN MORE THAN 21 DAYS.

THE CONTRACTOR SHALL KEEP A SUPPLY OF EROSION AND SEDIMENTATION CONTROL TOOLS AND SUPPLIES ON SITE (SEDIMENT BARRIER, STONE, SHOVELS, ETC.).

THE CONTRACTOR SHALL INSPECT THE EROSION AND SEDIMENTATION CONTROLS WEEKLY AND PRIOR TO A PREDICTED RAIN EVENT. THE EROSION AND SEDIMENTATION CONTROLS SHALL BE REPAIRED OR MAINTAINED AS REQUIRED.

THE CONTRACTOR SHALL PROVIDE DUST CONTROL AS REQUIRED TO PREVENT WIND EROSION. THE METHOD USED SHALL BE APPROVED BY THE ENVIRONMENTAL PLANNER.

EROSION AND SEDIMENTATION CONTROL MEASURES ARE SUBJECT TO REVIEW AND APPROVAL BY THE TOWNS ENVIRONMENTAL PLANNER.

ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED AS DIRECTED BY THE TOWNS ENVIRONMENTAL PLANNER TO ADDRESS FIELD CONDITIONS.

SEE THE ATTACHED EROSION CONTROL NARRATIVE, CONSTRUCTION SEQUENCE, CONSTRUCTION SCHEDULE FOR ADDITIONAL INFORMATION.

**CONSTRUCTION NOTES:**

UNDERGROUND UTILITY STRUCTURE FACILITY LOCATIONS DEPICTED AND NOTED HEREON HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING AND INFORMATION PROVIDED BY OTHERS. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES AND STRUCTURES MAY EXIST IN THE AREA, THE EXISTENCE OF WHICH IS UNKNOWN TO DUTTON ASSOCIATES, LLC. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION.

PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES AT CROSSING AND CONNECTION POINTS. ANY CONFLICT OR DISCREPANCY WITH THE PLANS SHALL BE REPORTED TO THE ENGINEER SO THAT ADJUSTMENTS TO THE DESIGN CAN BE MADE.

PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL REQUEST AN UNDERGROUND UTILITY MARK OUT BY CALLING THE CONNECTICUT UNDERGROUND UTILITY PROTECTION PLAN (PHONE 1-800-922-4455).

THE CONTRACTOR IS REQUIRED TO OBTAIN ALL NECESSARY PERMITS AND ARRANGE FOR ALL NECESSARY INSPECTIONS FOR THE WORK TO BE PERFORMED.

THE CONTRACTOR IS RESPONSIBLE FOR PAYMENT OF ALL PERMIT AND/OR INSPECTION FEES.

THE CONDITIONS OF APPROVAL ARE A PART OF THIS PLAN, THE CONTRACTOR SHALL CONFORM TO ALL APPLICABLE CONDITIONS.

CONSTRUCTION WASTE AND/OR DEBRIS SHALL BE DISPOSED OF ONLY AT APPROVED LOCATIONS AND IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL LAWS AND/OR REGULATIONS.

CONSTRUCTION METHODS AND MATERIALS SHALL BE IN ACCORDANCE WITH THE NOTES AND DETAILS ON THESE PLANS, IF NOT ON SAID PLAN THE TOWN OR CITY STANDARD DETAILS AND SPECIFICATIONS SHALL APPLY. AND IF NOT INCLUDED IN ABOVE, THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND INCIDENTAL CONSTRUCTION, LATEST EDITION, FORM 814A AS APPLICABLE.

THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING STRUCTURES, SERVICES AND/OR PROPERTY CAUSED BY HIM DURING CONSTRUCTION. REPAIRS SHALL BE MADE TO THE SATISFACTION OF THE OWNER OF THE DAMAGED PROPERTY AT THE CONTRACTORS EXPENSE.

PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL COORDINATE CONSTRUCTION WITH OUTSIDE UTILITY COMPANIES PROVIDING SERVICE TO THE SITE. CONFLICTS WITH SUCH UTILITIES SHALL BE REPORTED TO THE ENGINEER SO THAT ADJUSTMENTS TO THE DESIGN CAN BE MADE.

**SUGGESTED CONSTRUCTION SEQUENCE**

- 1) INSTALL BASIC EROSION AND SEDIMENTATION CONTROLS. INSPECT AND MAINTAIN E & S CONTROLS WEEKLY AND/OR PRIOR TO A RAIN EVENT.
2) ROUGH GRADE SITE, THE RAIN GARDEN SHALL BE USED AS A TEMPORARY SEDIMENT BASIN.
3) EXCAVATE FOR AND INSTALL FOUNDATION, BEGIN HOUSE CONSTRUCTION.
4) CLEAR AND GRUB TREES FROM PROPOSED SEPTIC SYSTEM AREA.
5) INSTALL SEPTIC SYSTEM, SEPTIC TANK, PUMP CHAMBER AND SANITARY FORCE MAIN. DE-WATERING (IF REQUIRED) AT THE 24" HDPE FOR THE FORCE MAIN CROSSING SHALL BE DIRECTED TO THE RAIN GARDEN.
6) PAVE DRIVEWAY, INSTALL SIDEWALK.
7) FINE GRADE SITE
8) SPREAD TOPSOIL, SEED & MULCH
9) CONDUCT FINAL CLEAN-UP AND REMOVE SEDIMENT BARRIERS ONCE ALL UPSTREAM AREAS ARE STABILIZED.

**SUGGESTED CONSTRUCTION SCHEDULE**

Table with 14 columns (OPERATION / WEEKS, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24) and 9 rows of construction tasks with shaded cells indicating duration.

**STORM SEWER MAINTENANCE PLAN**

PROPER MAINTENANCE OF THE RAIN GARDEN IS CRITICAL ITS PROPER FUNCTION. FOLLOWING ARE SUGGESTED MINIMUM MAINTENANCE ITEMS FOR THE RAIN GARDEN.

**SPRING MAINTENANCE**

FOLLOWING THE LAST SNOWFALL IN THE SPRING, THE FOLLOWING TASKS SHALL BE COMPLETED:

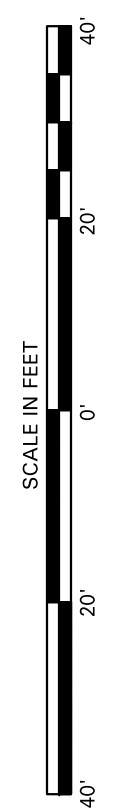
- 1) THE DRIVEWAY SHALL BE SWEEPED CLEANED OF ALL ACCUMULATED SAND AND DEBRIS.
2) INSPECT THE ROOF DRAIN DRAINAGE SYSTEM & GUTTERS, CLEAN DEBRIS FROM GUTTERS AND INSPECT THE VISIBLE ELEMENTS OF THE SYSTEM FOR DAMAGE AND REPAIR AS NECESSARY.

- 3) INSPECT THE RAIN GARDEN, REMOVE DEBRIS AND FRESHEN THE MULCH AS REQUIRED. BE SURE TO USE AGED HARDWOOD MULCH.

**FALL MAINTENANCE**

FOLLOWING THE LEAF DROP IN THE FALL, THE FOLLOWING TASKS SHALL BE COMPLETED:

- 1) REMOVE ALL ACCUMULATED LEAVES AND DEBRIS FROM THE SITE.
2) INSPECT THE ROOF DRAIN DRAINAGE SYSTEM & GUTTERS, CLEAN DEBRIS FROM GUTTERS AND INSPECT THE VISIBLE ELEMENTS OF THE SYSTEM FOR DAMAGE AND REPAIR AS NECESSARY.
3) INSPECT THE RAIN GARDEN, REMOVE DEBRIS AND FRESHEN THE MULCH AS REQUIRED. BE SURE TO USE AGED HARDWOOD MULCH.



DUTTON ASSOCIATES, LLC
LAND SURVEYORS AND CIVIL ENGINEERS
67 EASTERN BOULEVARD
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TEL: 860-633-8401 FAX: 860-633-8851
EMAIL: JMO@DUTTONASSOCIATESLLC.COM

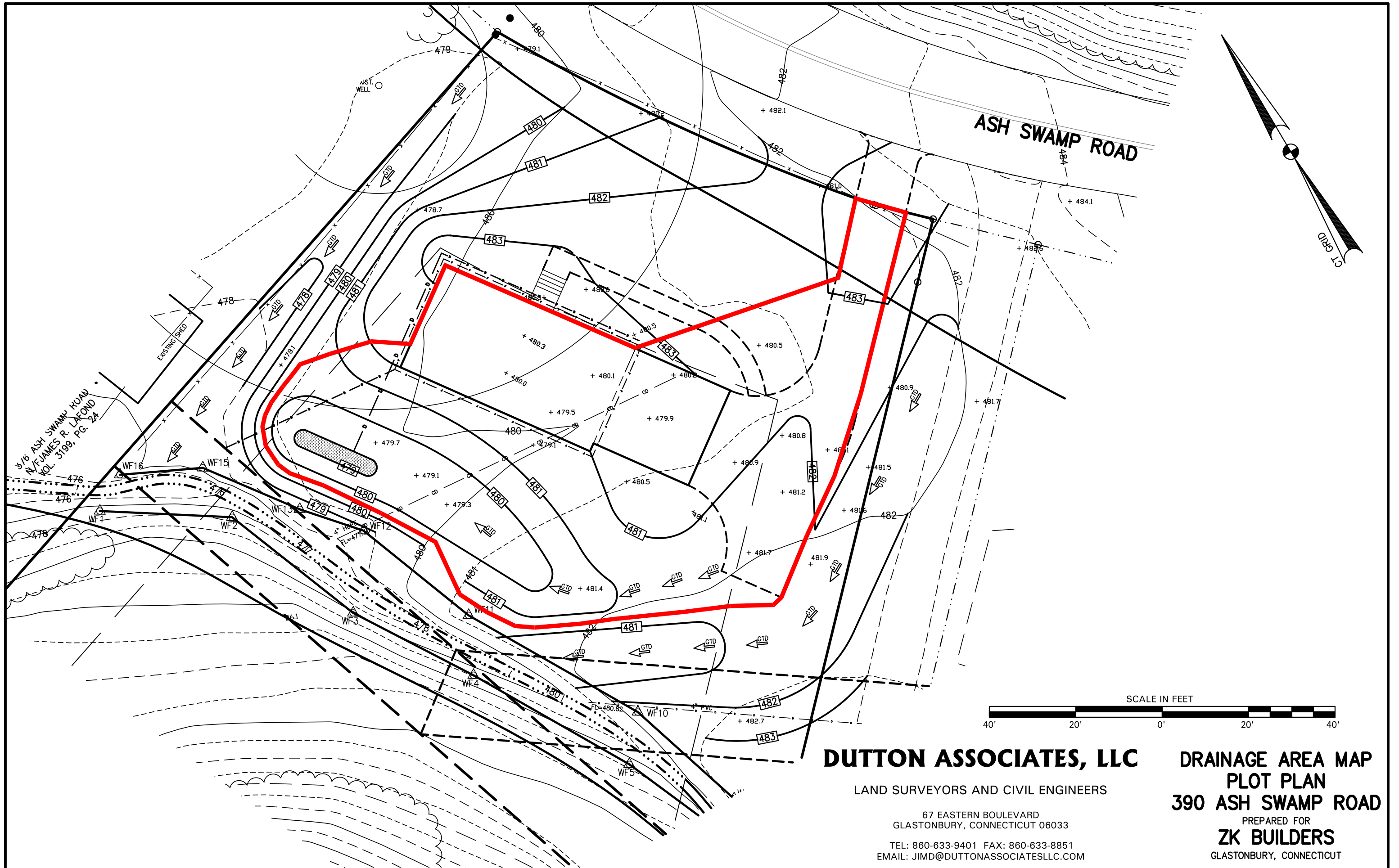
MARK A. REYNOLDS, P.E. #19789

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PLOT PLAN
390 ASH SWAMP ROAD
PREPARED FOR
ZK BUILDERS
GASTONBURY, CONNECTICUT

Table with REVISIONS: header and several empty rows.

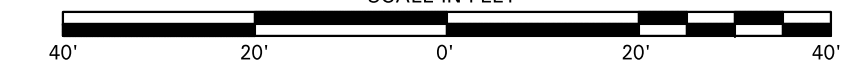
DATE: 03/14/2024
SCALE: AS NOTED
SHEET 7 of 7
A-22-323-A
FILE: 22-323.DWG



576 ASH SWAMP ROAD  
 W/F JAMES R. LAFOOND  
 VOL. 3199, PG. 2A

ASH SWAMP ROAD

SCALE IN FEET



**DUTTON ASSOCIATES, LLC**

LAND SURVEYORS AND CIVIL ENGINEERS

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**DRAINAGE AREA MAP  
 PLOT PLAN  
 390 ASH SWAMP ROAD**

PREPARED FOR  
**ZK BUILDERS**  
 GLASTONBURY, CONNECTICUT



Town of Glastonbury Engineering Division  
 Development Plan Review Checklist

PROJECT INFORMATION	
Approval Type:	Special Permit Other: Wetlands Permit
Design Engineer Firm:	Dutton Associates, LLC
Project Name:	Plot Plan prepared for ZK Builders
Project Address:	390 Ash Swamp Road
Submittal Date:	03/14/2024
Review Date:	
Reviewed By:	

GENERAL PLAN CHECKLIST	
X	Maps prepared in accordance with the "Minimum Standards for Surveys and Maps in the State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. on September 26, 1996, as amended.
X	Coordinate System Identified (NAD 83, NAVD 88 required)
X	Label NAD83 coordinates and identify control points and bench marks
X	Location Plan (1" = 1000', including outline of property or site area)
X	North Arrow, Plan Scale, Date
	Sealed by a CT Licensed Land Surveyor or Professional Engineer as Applicable
X	Note indicating Contractor requirement to "Call-Before-You-Dig" prior to any construction
X	Complete legend identifying existing and proposed features
	Town Approval block included on all sheets to be filed
	Separate sheet included in plan set for Town approval motions and Department review memos
	Parcel boundary closure check performed by Engineering
	Addresses assigned to any newly created or combined parcels
	Street Names identified for private roads or private drives to be named for addressing purposes
X	Standard Inspection Note on all applicable sheets stating: NOTE: THE CONTRACTOR SHALL NOTIFY THE TOWN OF GLASTONBURY ENGINEERING DIVISION 24 HOURS PRIOR TO BEGINNING ANY STORM DRAINAGE, SANITARY SEWER INSTALLATION, ROADWAY PREPARATION, PAVING, SIDEWALK, CURBING, OR ANY EXCAVATION IN THE TOWN RIGHT-OF-WAY TO SCHEDULE INSPECTIONS. THE DIVISION CAN BE REACHED BETWEEN 8:00 AM-4:30 PM MONDAY THRU FRIDAY AT (860) 652-7735.

Town of Glastonbury Engineering Division  
 Development Plan Review Checklist

SITE DEVELOPMENT PLAN CHECKLIST	
	Plans certified by CT Licensed Land Surveyor and Professional Engineer
X	Existing structures with indication of protection or removal.
X	Existing curb cuts to be closed and restored.
X	Wetlands and watercourses with 100' upland review area with Soil Scientist Certification
	FEMA Flood boundary derived from Flood Profile Data from the most current FIS (as applicable)
X	Proposed building lines, building footprint, finished floor elevations
X	Existing ground contours at 2 foot intervals (or 1 foot intervals in Flood Zone areas) with spot elevations at highpoints and depressions, based on NAVD 1988. Include a minimum of two (2) benchmarks per sheet. Note source of topographic information and limits of field survey.
X	Proposed finished ground contours at 2 foot intervals (or 1 foot intervals in Flood Zone areas) with spot elevations at highpoints and depressions, based on NAVD 1988. Depict grading for the entire site.
X	Proposed limits of clearing, with specimen trees noted for protection
X	Existing and proposed storm drainage facilities, including structure types, pipe size, slopes, materials, invert elevations, and connections to existing drainage systems, wetlands or watercourses, water quality treatment measures per 2004 DEEP Stormwater Quality Manual. <b>SEE SEPARATE SHEETS FOR ADDITIONAL DRAINAGE REQUIREMENTS</b>
X	Proposed foundation drains showing invert levels of the drain at the building connection and the outlet (piped discharges into the public right-of-way are prohibited by ordinance )
X	Existing and proposed water and sanitary sewer facilities, including all bends, valves, manholes, hydrants, and appurtenances with pipe sizes, slopes, materials and invert elevations within structures <b>SEE SEPARATE SHEET FOR ADDITIONAL SEWER REQUIREMENTS</b>
X	Proposed location of all other utilities (if known) including, but not limited to, natural gas, telephone and electrical (include equipment installation)
	Retaining walls with top and bottom of walls elevations noted. Confirm no grading or impacts on to abutting private property.
X	Parking areas, including parking requirements table, appropriate aisle and space dimensions, # ADA spaces
X	Sight line adequate (200' minimum) at proposed driveway locations.
	Traffic control devices, pavement markings and signs.
X	Sidewalks and sidewalk ramps <b>Sidewalks continuous through driveways, 8" reinforced sidewalk at new commercial drives. Check for current Town details.</b>
	Plantings minimum 10 feet away from sidewalks to avoid root intrusion, minimize plant obstruction complaints
	Guide rail and protective fencing as required for grading
X	Erosion and Sediment controls per 2002 E&S Control Guidelines (including narrative, area of disturbance in acres, phasing as required, construction entrance, silt fence, sediment basins, etc.).
	Obtain CT DEEP Construction General Permit for projects that disturb 5 acres or more.

Town of Glastonbury Engineering Division  
 Development Plan Review Checklist

**STORMWATER MANAGEMENT REPORT CHECKLIST**

	Report signed by CT Licensed Professional Engineer
	Narrative summarizing the proposed project, design methods used, and table of pre- and post-development flows at appropriate downstream locations showing zero net increase in runoff from the site for the 2, 10, 25, 50 and 100-year storm events. Summarize WQV required for the project area and the WQV retained by the proposed improvements.
	Hydrographs and calculations identifying peak runoff, velocities and timing of peak flows from the site at critical locations in the watershed as outlined in the CTDOT Drainage Manual, latest revision. Supporting information for the drainage analysis including, but not limited to, runoff coefficients, time of concentration flow paths, drywell design, etc.
	Confirm use of SCS hydrology methods for proposed detention, including latest NOAA Rainfall rates and Type III rainfall distribution.
	Inventory and evaluation of hydraulic structures both on-site and in the downstream zone of influence (as defined in the Public Improvement Standards) to identify flow capacity, pipe velocities, hydraulic grade line elevations and physical condition
X	Identification of drainage structures and watercourses that are inadequate for existing or future conditions
	Hydraulic grade line computations for enclosed drainage systems indicating a minimum headwater clearance of one (1) below top of frame for existing and proposed structures.
	Detention basin design information that includes stage-storage-discharge curves or tables, outlet control data, flood routing calculations, subsurface conditions and maximum water surface elevations
	Outlet protection, riprap sizing, channel sizing, and channel lining calculations
	Gutter flow analysis and ponding calculations for low points (when requested by the Town Engineer)
	Plans with scale not to exceed 1" = 100' identifying topography, watershed boundaries (for overall site and storm drainage structures), soil types, land use characteristics and time of concentration flow paths with design points and labels corresponding to the drainage calculations for pre- and post-development conditions
	Plans with 100-year flood limits derived from Flood Profile data provided in the latest version of the FEMA Flood Insurance Study (if applicable), inland wetland boundaries, and groundwater protection zones within the project limits
X	Computations of the <u>required</u> Water Quality Volume (WQV) to be retained on site for the project area and for the area draining to each proposed treatment system, include pre and post development impervious area and directly connected impervious area (DCIA). For redevelopment of sites that are currently developed with DCIA of 40% or more, <b>one-half of the WQV</b> from the site must be retained, <b>for all other sites the full WQV must be retained.</b> )
X	Computations of the WQV <u>actually retained</u> by the proposed treatment system(s). NOTE: Only storage below the low-flow orifice of an outlet control structure can be considered retained for computation of the WQV. Slow release of the WQV over a 24 to 48 hour period via infiltration or a small diameter orifice will also be considered as retained for the purposes of these computations.
X	WQV surface elevations clearly labeled and depicted on appropriate cross sections and details within the plan set. WQV retained by each proposed treatment system labeled on the plans.
X	Town of Glastonbury MS4 DCIA tracking table accurately filled out and affixed to the site plan and/or drainage plan sheets within the plan set.

Town of Glastonbury Engineering Division  
 Development Plan Review Checklist

**STORM DRAINAGE PLAN CHECKLIST**

	Plans certified by CT Licensed Professional Engineer
X	Existing and proposed storm drainage facilities, including structure types, pipe size, slopes, materials, invert elevations, and connections to existing drainage systems, wetlands or watercourses
	Outlet protection properly detailed, labeled with length, width, depth, type of riprap, geotextile, etc.
X	Water Quality Volume treatment measures provided in compliance with Town Standards and the Town MS4 Permit.
X	Maintenance plan and schedule for all public and private stormwater management facilities <b><u>including party responsible for maintenance</u></b> shown on the site plan or utility plan as applicable
	Deep sump catch basins for water quality where applicable. 2 foot sump for detention basin outlet structures.
	Channels and swales properly sized, lining specified and computed
X	Appropriate details for non-standard structures
	No concentrated stormwater discharges to neighboring properties or public roadway
	Infiltration or subsurface detention facilities properly sized per drainage computations. Include overflow to town system where possible, inspection ports for maintenance, above groundwater elevation per test pits.
	Test pit data shown on plan for infiltration and subsurface detention systems

**STORM DRAINAGE STORAGE / TREATMENT PLAN CHECKLIST**

	Basin - Forebay sized for WQV
	Basin - Bottom sloped at 1% toward outlet, Side slopes 4:1 or flatter for ease of maintenance
	Basin - Underdrain to ensure complete emptying of basin in 48 hours
X	Basin - Emergency spillway sized properly with stable discharge point
	Underground Storage - detailed layout of proposed system (plan and section views)
	Underground Storage - relevant manufacturer details with storage computations
X	Cross sections through basin or chamber depicting WQV and storm event water surface elevations
	2 foot sump for outlet structures, outlet structure details / elevations consistent with drainage computations

Town of Glastonbury Engineering Division  
 Development Plan Review Checklist

<b>SANITARY SEWER CHECKLIST</b>	
	Plans certified by CT Licensed Land Surveyor and Professional Engineer
X	Existing and proposed sanitary sewer facilities, including all bends, manholes, appurtenances with pipe sizes, slopes, materials and invert elevations within structures
	Existing sewer laterals identified properly per record drawings
	Minimum cover 4 feet for public sewer
	Sewer laterals properly designed and specified per Town Standards (6-inch PVC minimum, cleanouts as required)
	Sampling manhole provided for all commercial and industrial buildings at street line (unless lateral connects directly to an existing manhole)
	Grease Trap or AGRU for Class III or IV Food Service Establishments (FOG Requirements)
X	75 foot separation of pump chamber, septic tanks, or grease trap from wells
	Appropriate sewer easement for Town facilities (25 foot wide). Must provide access to all structures with load bearing surface, grade of 15% or less. Consider need for construction easements.
	Bolted covers noted for off-road public sewer manholes
X	Appropriate details for non-standard structures.

PREPARED BY JWD	DATE PREPARED	<b>DUTTON ASSOCIATES, LLC</b> 67 EASTERN BOULEVARD GLASTONBURY, CONNECTICUT 06033 TEL: (860)-633-9401 FAX: (860)-633-8851 EMAIL: JIMD@DUTTONASSOCIATESLLC.COM	JOB NUMBER 3/12/24	PAGE NUMBER
CHECKED BY	DATE CHECKED		CLIENT NAME	TOTAL PAGES

WQV

$$\begin{aligned} \text{TOTAL AREA} &= 8096 \text{ SF} \quad (0.186 \text{ AC}) \\ \text{PAVED AREA} &= 3616 \text{ SF} \quad (44.7\%) \end{aligned}$$

$$\text{WQV} = \frac{(1.3)(R)(A)}{12}$$

$$R = 0.05 + 0.009I$$

$$I = 0\% \text{ IMPERVIOUS}$$

$$A = \text{AREA}$$

$$\text{WQV} = \frac{(1.3)(0.05 + 0.009 \times 44.7)(0.186)}{12}$$

$$= 0.009 \text{ AC-FT} = 397 \text{ FT}^3$$

- RAIN GARDEN VOLUME

EL' AREA VOL

479 78.5 } 543.3 FT<sup>3</sup>

480 1052.2

OK