

# TOWN OF NEWBURGH PLANNING BOARD TECHNICAL REVIEW COMMENTS

PROJECT NAME: KINGDOM HALL

PROJECT NO.: 22-31

PROJECT LOCATION: 33 OLD LITTLE BRITAIN RD

**SECTION 97, BLOCK 3, LOT 13** 

REVIEW DATE: 9 JUNE 2023 MEETING DATE: 15 JUNE 2023

PROJECT REPRESENTATIVE: GREENMAN – PEDERSEN, INC

- 1. Restrain joint pipe chart must be added to the plan sheets.
- 2. A Stormwater Facilities Maintenance Agreement will be required.
- 3. Status of Highway Superintendent's review of the access drive should be addressed.
- 4. It is noted that the Town Board is addressing modifications to the Tree Preservation Ordinance. It is noted that forty five of the current specimen trees will be considered significant trees.
- 5. Any stormwater management facility proposed to contain standing water must be fenced per Town Code.
- 6. Driveway culvert must identify 15-inch pipe as minimum standard.
- 7. Security for stormwater, erosion & sediment control/landscaping and associated inspection fees must be a condition of approval.
- 8. Comments regarding signage from the Building Department must be addressed. Signage may require referral to the Zoning Board of Appeals.
- 9. Potable water and fire protection water valving must be set up per Town of Newburgh standards. (copy attached)
- 10. Coverage under the NYSDEC Construction Stormwater SPDES Permit must be provided prior to Final Approval

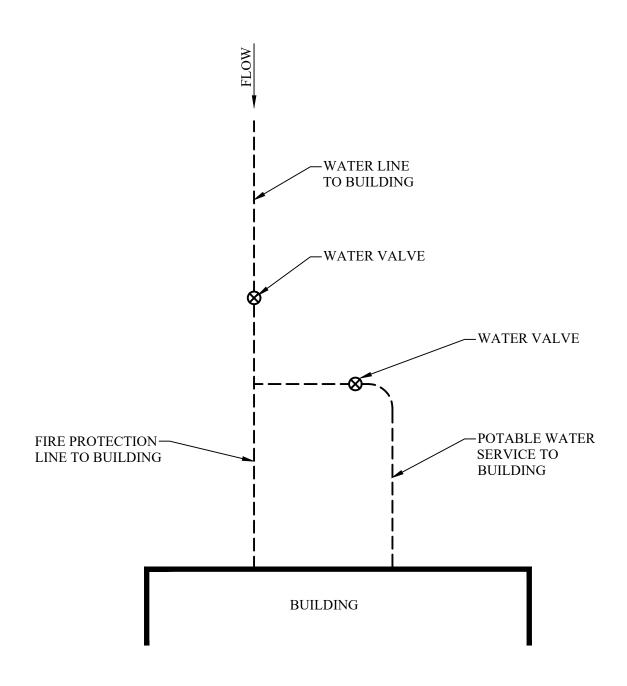
Respectfully submitted,

MHE Engineering, D.P.C.

ated of Henes

Patrick J. Hines

Principal PJH/ltm



### NOTE:

VALVING MUST BE ARRANGED SO THAT POTABLE WATER IS TERMINATED IF FIRE PROTECTION LINE IS TURNED OFF.

# TOWN OF NEWBURGH FIRE PROTECTION FLOW TO BLDG. CONNECTION DETAIL XXX SCALE: N.T.S.



June 2, 2023

Mr. John P. Ewasutyn, Chairman Town of Newburgh Planning Board 21 Hudson Valley Plaza Newburgh, NY 12550

Re: Jehovah's Witnesses 220 Seat New Kingdom Hall

33 Old Little Britain Road, Newburgh, NY Town of Newburgh Planning Board

MHE Engineering – Response to Technical Review Comments Issued 12 May 2023

KALA - Response to Technical Review Comments Issued 12 May 2023

Dear Chairman Ewasutyn and Planning Board Members,

Greenman-Pedersen, Inc. (GPI) reviewed the Technical Review Comments received from MHE Engineering and from Karen Arent Landscape Architect on the referenced projects Application for Site Plan Approval. We offer the following responses on how these comments have been addressed on the plans provided on June 1, 2023 in advance of the June 15 Public Hearing.

### MHE Engineering Comments and response:

- 1. The Stormwater Management for the project site has been significantly altered. Design now incorporates a bio-retention and extended detention basin rather than the previously proposed infiltration practices. A review of the SWPPP is being undertaken by this office.
  - Acknowledged
- 2. Sanitary sewer notes reference submission to NYSDEC in numerous locations. Septic system is less than 1,000 gallons per day and is not required to be submitted to NYSDEC. Septic System notes must require submission of an As Built drawing and certification by a NYS Design Professional as to the construction of the subsurface sanitary sewer disposal system prior to issuance of a Certificate of Occupancy.
  - All reference to NYSDEC have been removed. A note requiring submission of an As-Built drawing and certification by a NYS Design Professional regarding the construction of the subsurface system have also been added to the plans. It is acknowledged that this As Built drawing and certification are conditions for issuance of the projects Certificate of Occupancy.
- 3. The subsurface sanitary sewer disposal system design identifies laterals at 80 feet each. Gravity fed laterals have a maximum length of 60 feet.
  - The system laterals have been adjusted to 60 foot lengths.
- 4. The septic tank is labeled as 1.2 gallon tank on Sheet CU-101. This should be labeled 1,500 gallons per other plan details.
  - The septic tank label has been updated on Sheet CU-101.

- 5. A Restrained Joint Pipe Chart should be added to the plans for the watermain.
  - The Restrained Joint Pipe Chart will be added to the final plans for the watermain work.
- 6. Comments from the Water Department regarding the thumbnail detail on Sheet U-101 should be received. It is unclear why the water line is extended and capped for future connections.
  - Any comments received from the Water Department's review will be made to the construction documents. We ask the Board to make this a condition on the site plan approval if the comments are not received by the time the Board can act on the site plan application. The water line stub noted on the plans was included to provide a future connection point for water beyond the paved portions of the site. This is a large property, and the owner wishes to plan for potential long-term expansion of their facilities if and when such needs arise in the future.
- 7. The water notes on Sheet 101 identify Pex tubing and PVC SDR21 this is not permitted in the Town of Newburgh. Reference Town of Newburgh Water notes including in other places in the plan set. Note 6 identifies water line construction shall include bedding and concrete thrust blocking. Concrete thrust blocks are not permitted in the Town of Newburgh. Mechanical Restraint Joint pipe is required. Generally, water notes should conform to Town of Newburgh Water Note requirements.
  - Notes and detailing have been updated to be consistent with the Town of Newburgh Water Notes. Mechanical Restraint Joints have been included, thrust blocks have been removed and reference to alternate water line materials have also been removed.
- 8. A Stormwater Facilities Maintenance Agreement will be required to be executed and filed.
  - Acknowledged.
- 9. Status of the Highway Superintendent's review of the access drive should be addressed.
  - Plans of the access drive design are being forwarded to the Highway Superintendent for review. A meeting to review the access is being coordinated.
- 10. Storm drainage notes on plan sheets identify Nyloplast Catch Basins while details identify standard concrete catch basins which are required. Any reference to the plastic catch basins should be removed from the plans.
  - All reference to the Nyloplast yard drain basins have been removed.
- 11. It is noted that the south side of the parking lot does not have curbing. The applicants have designed the parking lot to sheet flow to a swale along the south side. Vehicle delineation such as guiderail should be proposed to keep vehicles from driving off of pavement when parking.
  - The south side of the parking lot does have curbing and all drainage from the parking lot drains from the southwest to the northeast and is managed in the stormwater management practice. The swale located south of the parking lot is just an intercept swale picking up the wooded hill located south of the parking lot so that it does not drain onto the parking lot.



- 12. Comments regarding the revised SWPPP submitted:
  - Section 3.4 Receiving Water Bodies identifies that the project site openly flows to a roadside drainage feature to the northeast or to Washington Lake located to the southwest. This should be revised as the project does not discharge to Washington Lake. The project may have a small tributary area to the Lockwood Basin, which is below the City of Newburgh's water supply Washington Lake.
  - Acknowledged.

### KALA Karen Arent Landscape Architect Comments and response:

- 1. Provide details of the stone entry walls with the monument signs Please design the walls in accordance with Town of Newburgh design guidelines.
  - The stone entry wall with sign detail has been added to sheet C-502 Detail # 12. The detail
    also notes that the final design of the sign will be coordinated with the Town and we ask that
    the sign permit and final design of the sign be noted as an action that will be pursued after
    site plan approval.
- 2. Provide materials and details for the sliding gate.
  - The sliding gate detail has been included on sheet C-501 detail #12.
- 3. Multiple types of groundcovers are shown and quantified in the Ground Cover Legend but it is unclear where any of the groundcovers aside from grass are proposed on this plan. A monoculture of grass provides very little ecological benefit. On the slopes of the infiltration basin, specify Pinelands Nursey Basin Slope Mix (ZXMIXBASSL) and at the bottom of the infiltration basin, specify Pinelands Nursey Basin Bottom Mix (ZXMIXBASBO). This will increase biodiversity on the site, reduce maintenance, and fill in empty spaces between proposed basin plantings
  - The recommended ground cover mixes have been considered and incorporated into the design.
- 4. The stormwater management area is approximately 75'x250', with plenty of space to add trees. Propose at least five Red Maples or 8 Shadblow Serviceberry in the stormwater management area.
  - Per the tree preservation regulations, the project remains under the percentage removal that would require compensatory tree plantings or compensation. However, the owner has decided to add the five Red Maples. The eight serviceberry trees have not been added.
- 5. A large, steep hill is proposed on the northeast corner of the proposed parking lot. Lawn will not be sufficient to reduce potential erosion on this slope and will not provide ecological benefits to the site. Instead, show Pinelands Nursery Erosion Control Mix (ZXMIXEROSC) on the whole hill to provide food and habitat for local wildlife and to reduce erosion along the hill. This will also reduce maintenance costs as it needs mowing only once or twice a year.
  - The recommended ground cover mixes have been considered and incorporated into the design.



- 6. To avoid parking islands full of messy mulch, fill the islands beneath the Oaks with Gro Low Sumac or a low/no mow seed mix such as PT 769 R&R Eco-Turf Mix with Microclover or PT 702 Let it Bee. This also provide a nice, green color in the parking area.
  - PT 702 Let it Bee seed mix has been noted for the parking lot islands.
- 7. If the proposed Hydrangeas are supposed to be tree form, "Standard" must be specified within the botanical and common names to reduce confusion.
  - Hydrangeas are not included in the proposed landscape plantings.
- 8. Fountain Grass will not survive on the east side of the building. Instead, propose a more shade tolerant ornamental grass such as Northern Sea Oats.
  - Fountain Grass has been replaced with Northern Sea Oats.
- 9. The Tree Removal Calculations must be updated to reflect additional tree removals as proposed on the plan. The removal calculations shown on the plans are the same as the previous plans despite additional removals needed due to moving the stormwater management area. Some of the trees highlighted in orange in the inventory, which we gather means "to be removed", are shown as to be removed in the chart but to remain on the plan and must be clarified. Due to the proposed grading plan, additional trees as listed below must also be removed. Where there is cut or fill within 1' of a tree for every 1" of caliper. i.e., if a tree has a 36" caliper, there should not be any cut or fill within 36' of the tree or the tree will not survive, and it must be marked as "to be removed". The following trees must be removed:

### **SPECIMEN** 247 306 388 394 **SIGNIFICANT** 203 213 214 324 413 438 505 507 530 540 550

• The Tree Removal Calculations have been updated to reflect tree removals meeting the cut or fill condition setback where there is cut or fill within 1' of a tree for every 1" of caliper. The plan and related tables have been updated and the graphic presentation has been modified to better demonstrate removals, tree condition, etc. Based on the updated plan and calculations the project remains under the percentage removal thresholds that would require



### compensatory mitigation.

- 10. With an updated Tree Removal Calculation chart, it will become apparent that replacement trees will be needed for this site. According to Subsection 172-4 B, no more than 50% of total DBH inches of Significant tree, nor more than 50% of total DBH inches of Specimen trees, may be disturbed or removed on a property in the R-3 District. The additional trees as stated above will push this project over the allowed 50% Specimen tree removal. Please refer to the Town's Restitution Schedule Tree Preservation Law for replacement requirements. Some of the required additional trees should be proposed along the south side of the proposed parking lot, 30' on center and five feet from edge of pavement to shade the parking lot. Others may be placed along the north and north-east sides of the parking lot, with stone retaining wells as needed to plant trees on the slope.
  - The Tree Removal Calculations have been updated to reflect tree removals meeting the cut or fill condition setback where there is cut or fill within 1' of a tree for every 1" of caliper. The plan and related tables have been updated and the graphic presentation has been modified to better demonstrate removals, tree condition, etc. Based on the updated plan and calculations the project remains under the percentage removal thresholds that would require compensatory mitigation.

Sincerely,

John Montagne, RLA, AICP, LEED®AP VP|Director Land Development

80 Wolf Road, Albany, NY

518-898-9532

Cc: J Modglin, JWCS

file

# 33 OLD LITTLE BRITAIN

### GENERAL NOTES

- 1. BOUNDARY, TOPOGRAPHIC, AND UTILITY INFORMATION SHOWN ON PLANS WAS TAKEN FROM A SURVEY ENTITLED "ALTA/NSPS TITLE SURVEY OF LANDS OF: WOODLAND VIEWS CORP.", PREPARED BY GPI-MARK J. ANDREWS LICENSE No. 050455, DATED MARCH 12, 2020.
- 2. THE MERIDIAN OF THE SURVEY IS REFERENCED TO NEW YORK EAST ZONE, NAD 83. ELEVATIONS SHOWN ON THE PLANS REFER TO THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88).
- 3. THE SURVEY BENCHMARK OR CONTROL POINT USED IS AN "X" CUT ON THE SOUTH BONNET BOLT OF THE FIRE HYDRANT NORTH OF THE NORTHEAST CORNER OF THE SITE WITH AN ELEVATION OF 295.42 ABOVE AVERAGE SEA LEVEL.
- 4. ACCORDING TO FLOOD INSURANCE RATE MAP NO. 36071C0331E. PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), DATED AUGUST 3, 2009, THE SURVEYED PROPERTY SHOWN HEREON DOES NOT LIE WITHIN ANY SPECIAL FLOOD HAZARD AREA.

### GENERAL CONSTRUCTION NOTES

- 1. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS TO COORDINATE ALL WORK WITHIN 5 FEET OF THE BUILDING.
- 2. CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE TOWN OF NEWBURGH AND ALL OTHER GOVERNING AUTHORITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS RELATED TO PROJECT.
- 3. THE CONTRACTOR SHALL PROPERLY DISPOSE OF ALL UNSATISFACTORY AND/OR WASTE MATERIALS INCLUDING VEGETATION, ROOTS, CONCRETE, AND DEBRIS RELATED TO THE PROJECT IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS. CONTRACTOR SHALL NOTIFY OWNER AND ENGINEER PRIOR TO DISPOSING OF ANY SOIL FROM THE SITE TO CONFIRM QUANTITY AND REASON FOR NEEDING TO EXPORT EXCESS SOIL.
- 4. CONTRACTOR SHALL CONFINE ALL WORK TO THE PROJECT BOUNDARY AND AREAS DIRECTLY ADJOINING THE WORK IN THE PUBLIC RIGHT-OF-WAY. EXISTING PAVEMENTS, CURBS, SIDEWALKS, DRIVEWAYS, LANDSCAPING, FENCES AND OTHER EXISTING IMPROVEMENTS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED IN ACCORDANCE WITH THE CITY OR GOVERNING AUTHORITIES REQUIREMENTS. CONDITION OF THE ROAD AND/OR RIGHT-OF-WAY, DURING AND UPON COMPLETION OF THE JOB, SHALL BE AS GOOD AS THE CONDITION PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PROMPTLY CLEAN MUD, DIRT OR DEBRIS TRACKED ONTO EXISTING STREETS FROM THE PROJECT SITE.
- 5. CONTRACTOR SHALL VERIFY ALL ELEVATIONS, DIMENSIONS AND CONDITIONS IN THE FIELD BEFORE COMMENCING ANY WORK. CONTRACTOR SHALL REPORT ANY CONFLICTS OR VARIATIONS AND RESOLVE ALL CHANGES WITH THE OWNER PRIOR TO COMMENCING THE
- 6. ALL SPECIFICATIONS AND DOCUMENTS REFERRED TO IN THESE PLANS SHALL BE OF THE LATEST REVISION.

# CONSTRUCTION NOTICE NOTES

- 1. CONTRACTOR SHALL NOTIFY THE TOWN, CITY, OR COUNTY AT LEAST 48 HOURS PRIOR TO WORKING IN ANY PUBLIC RIGHT-OF-WAY OR EASEMENTS OR CONNECTING TO STREET, DRAINAGE, WATER OR WASTEWATER FACILITIES.
- 2. CONTRACTOR SHALL NOTIFY THE TOWN OF NEWBURGH'S TOWN ENGINEER AT LEAST 72 HOURS PRIOR TO CONSTRUCTING THE DRIVEWAY WITHIN THE RIGHT-OF-WAY TO ANY STREET.
- 3. CONTRACTOR SHALL NOTIFY THE TOWN OF NEWBURGH CONSOLIDATED WATER DISTRICT'S SUPERINTENDENT AT LEAST 72 HOURS PRIOR TO CONNECTING TO ANY PUBLIC WATER FACILITY.
- 4. CONTRACTOR SHALL NOTIFY CENTRAL HUDSON ELECTRIC AND GAS AT LEAST 48 HOURS PRIOR TO WORKING IN ANY PUBLIC ELECTRIC FACILITIES. (IF NEEDED)
- 5. CONTRACTOR SHALL NOTIFY CENTRAL HUDSON ELECTRIC AND GAS AT LEAST 48 HOURS PRIOR TO WORKING IN ANY PUBLIC GAS FACILITIES. (IF NEEDED)
- 6. CONTRACTOR SHALL NOTIFY NYSDEC AT LEAST 120 HOURS PRIOR TO DISTURBING ANY SOIL ON THE SITE.
- 7. CONTRACTOR SHALL NOTIFY DIGSAFENY AT LEAST 72 HOURS PRIOR TO DISTURBING ANY SOIL ON THE SITE.

### LIST OF APPROVALS CONTACT INFORMATION

ZONING STATISTICS AND PARKING SUMMARY

±296,208; SF (±6.80 AC)

NEWBURGH, NY 12550

R-3, RESIDENTIAL

PLACE OF WORSHIP

FRONT: 50'

SIDE: 50'

REAR: 50'

97-3-13

**VACANT** 

49%

33 OLD LITTLE BRITAIN ROAD

R/O, PROFESSIONAL OVERLAY

1 SPACE PER EVERY 3 SEATS

71 REGULAR SPACES

TOTAL = 74 SPACES

3 H/C SPACES

220 SEATS / 3 = 74 SPACES

TOTAL PARCEL AREA:

ADDRESS:

**ZONING:** 

PARCEL ID #:

CURRENT USE:

PROPOSED USE:

SETBACKS:

PROPOSED IMPERVIOUS COVER:

REQUIRED PARKING (AHJ):

PROPOSED PARKING:

APPLICANT: NEWBURGH SOUTH CONGREGATION OF JEHOVAH'S WITNESSES NAME: JOSHUA MODGLIN PHONE: 470-219-4534

ADDRESS: 23 OLD LITTLE BRITAIN ROAD, NEWBURGH, NY 12550

CIVIL ENGINEER: GPI NAME: RYAN TRUNKO, PE. PHONE: 518-898-9551

ADDRESS: 80 WOLF ROAD, SUITE 300, ALBANY, NY 12205

SURVEYOR: GPI NAME: MARK ANDREWS PHONE: 716-488-2803

ADDRESS: 200 HARRISON STREET, SUITE H2, JAMESTOWN, NY 14701

REAR:

LANDSCAPE ARCHITECT: NAME: CRAIG TRIPP, PLA, LEED AP PHONE: 518-898-9546

ADDRESS: 80 WOLF ROAD, SUITE 300, ALBANY, NY 12205

GEOTECHNICAL ENGINEER: GIFFORD ENGINEERING NAME: GREGORY GIFFORD

PHONE: 518-382-2545 ADDRESS: 865 PEARSE ROAD, NISKAYUNA, NY 12309

### DRAWING INDEX

C-001 COVER SHEET V-101 BOUNDARY AND TOPOGRAPHIC SURVEY V-102 TREE SURVEY V-103 TREE SURVEY CS101 SITE PLAN CG101 GRADING AND DRAINAGE PLAN CU101 UTILITY PLAN CE101 EROSION CONTROL PLAN LP101 LANDSCAPING PLAN C-501 SITE DETAILS C-502 SITE DETAILS C-503 SITE DETAILS C-504 SITE DETAILS

SITE DETAILS AND NOTES

### BULK TABLE - ZONING REQUIREMENTS: TOWN OF NEWDIDOLL

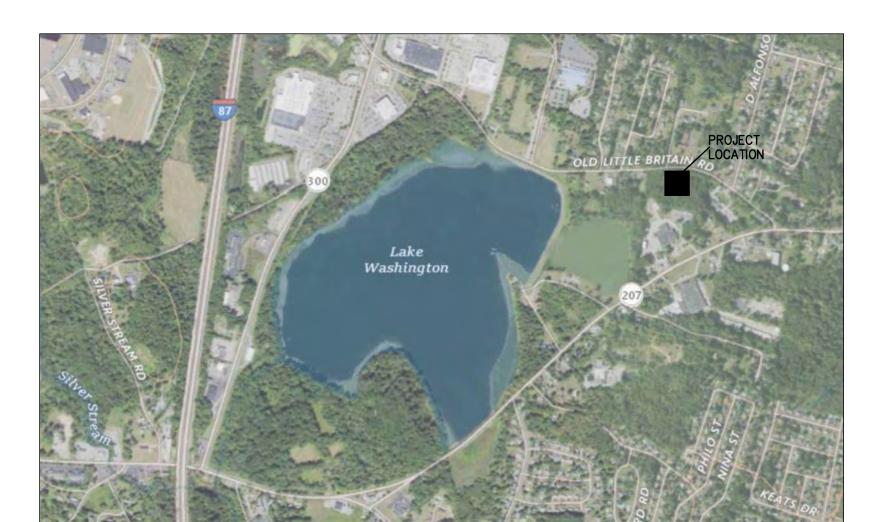
| TOWN OF NEWBURGH:                   |              |                 |  |  |
|-------------------------------------|--------------|-----------------|--|--|
| R-3 DISTRICT (PROFESSIONAL OVERLAY) |              |                 |  |  |
|                                     | REQUIRED:    | PROPOSED:       |  |  |
| MINIMUM LOT AREA:                   | 2.0 ACRES    | 6.8 ACRES       |  |  |
| MINIMUM LOT WIDTH:                  | 150 FT       | 630 FT          |  |  |
| MINIMUM LOT DEPTH:                  | 150 FT       | 375 FT          |  |  |
| MAXIMUM BUILDING FOOTPRINT:         | 15%          | 1.5%            |  |  |
| MAXIMUM BUILDING HEIGHT:            | 35 FT        | 1.5%            |  |  |
| MAXIMUM LOT COVERAGE:               | 50%          | 1.5%            |  |  |
| SETBACKS:                           |              |                 |  |  |
| FRONT:                              | 50 FT        | ±133 FT         |  |  |
| SIDE (ONE SIDE/TOTAL):              | 50 FT/100 FT | ±133 FT/±592 FT |  |  |

# OLIANTITY SLIMMARY TARIF

50 FT

±166 FT

| QUANT                        | III SUMMARI IADLE   |
|------------------------------|---------------------|
| DESCRIPTION                  |                     |
| CAR PAVEMENT AREA            | 26,554 SQ.FT.       |
| CONCRETE PAVEMENT AREA       | 2,024 SQ.FT.        |
| CURB/CURB & GUTTER LENGTH    | 932 FT.             |
| LANDSCAPE QUANTITIES         | SEE LANDSCAPE PLAN  |
| UTILITY QUANTITIES           | SEE UTILITY PLAN    |
| LIGHTING & WIRING QUANTITIES | SEE ELECTRICAL PLAN |
| DRAINAGE STRUCTURES          | SEE DRAINAGE PLAN   |
| TOPSOIL                      | 758 CY              |



# **ABBREVIATIONS**

BOT

BOW

CB

CIP

C/L

ACRES

AUTHORITY HAVING JURISDICTION **APPROX** APPROXIMATE BOTTOM OF CURB BUILDING BOTTOM BOTTOM OF WALL CATCH BASIN CAST IRON OR CURB INLET CAST-IN-PLACE CENTER LINE CLEAN OUT COMM COMMUNICATIONS CONC CTR CONCRETE CENTER CU YD OR CY CUBIC YARD DEPTH DOUBLE DEG DEMO DEGREES DEMOLITION DUCTILE IRON DIAMETER DRAIN DRAWING EAST OR ELECTRIC

**ELEVATION** ELECTRICAL ELECTRIC METER EOP EDGE OF PAVEMENT EXIST OR **EXISTING** FLOOR DRAIN OR FOOTING DRAIN FOUNDATION FINISHED FLOOR FIRE PROTECTION FEET FOOTING GALLON GAS METER GROUND GAS VALVE HIGH-DENSITY POLYETHYLENE INSIDE DIAMETER INVERT ELEVATION INVERT LENGTH LINEAR FEET LIQUID PROPANE GAS MAXIMUM MANHOLE MINIMUM MISC MISCELLANEOUS MW MUNICIPAL WATER MAIN

NORTH NON-POTABLE WATER NPW ON CENTER OUTSIDE DIAMETER OVERHEAD PROPERTY LINE POUNDS PER SQUARE INCH RADIUS RCP REINFORCED CONCRETE PIPE RD ROOF DRAIN REF REFERENCE REINF REINFORCED OR REINFORCING SOUTH OR SANITARY SANITARY SCH SCHEDULE

STORM DRAIN SDMH STORM DRAIN MANHOLE SPECIFICATION SANITARY SEWER SANITARY SEWER MANHOLE STANDARD SIDEWALK

TOP OF CURB TRENCH DRAIN TYPICAL UGND UNDERGROUND UTILITIES UTILITY POLE

SD

UTIL

VOLUME WEST OR POTABLE WATER OR WIDTH

**NOT FOR** CONSTRUCTION THIS DRAWING PROVIDED ONLY FOR **REVIEW AND APPROVAL** 

IVIL ENGINEER

518.453.9431

80 Wolf Road, Suite 300

31 MAY 23 SUBMISSION TO TOWN 28 APR 23 SUBMISSION TO TOWN 15 FEB 23 SUBMISSION TO TOWN

11 NOV 22 SUBMISSION TO TOWN 20 OCT 22 GPI CONCEPT FOR REVIEW 16 SEP 22 CONCEPT FOR REVIEW

RK: DATE: DESCRIPTION:

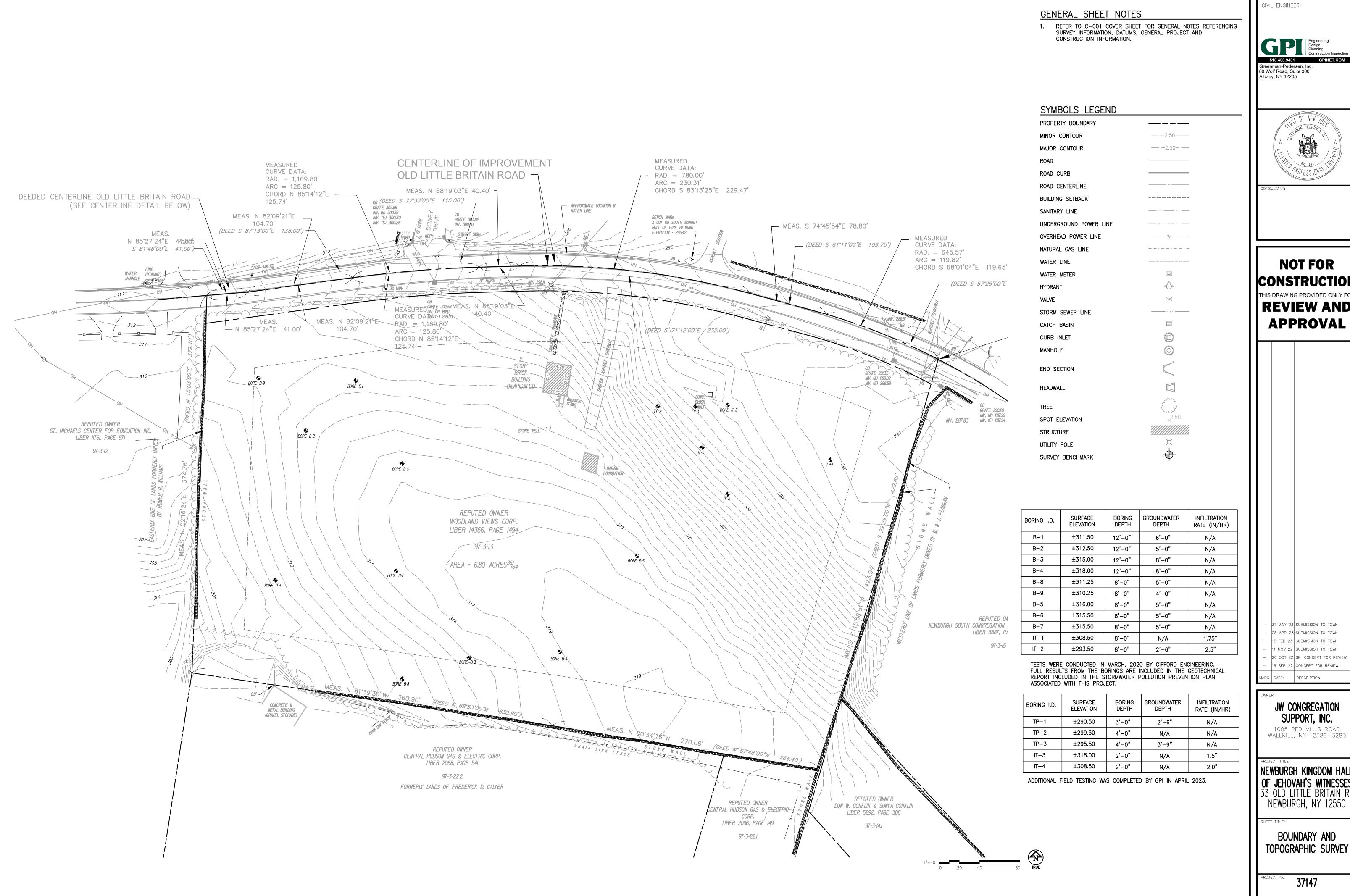
JW CONGREGATION SUPPORT, INC.

1005 RED MILLS ROAD WALLKILL, NY 12589-3283

NEWBURGH KINGDOM HALI

NEWBURGH, NY 12550

**COVER SHEET** 



CIVIL ENGINEER

80 Wolf Road, Suite 300 Albany, NY 12205



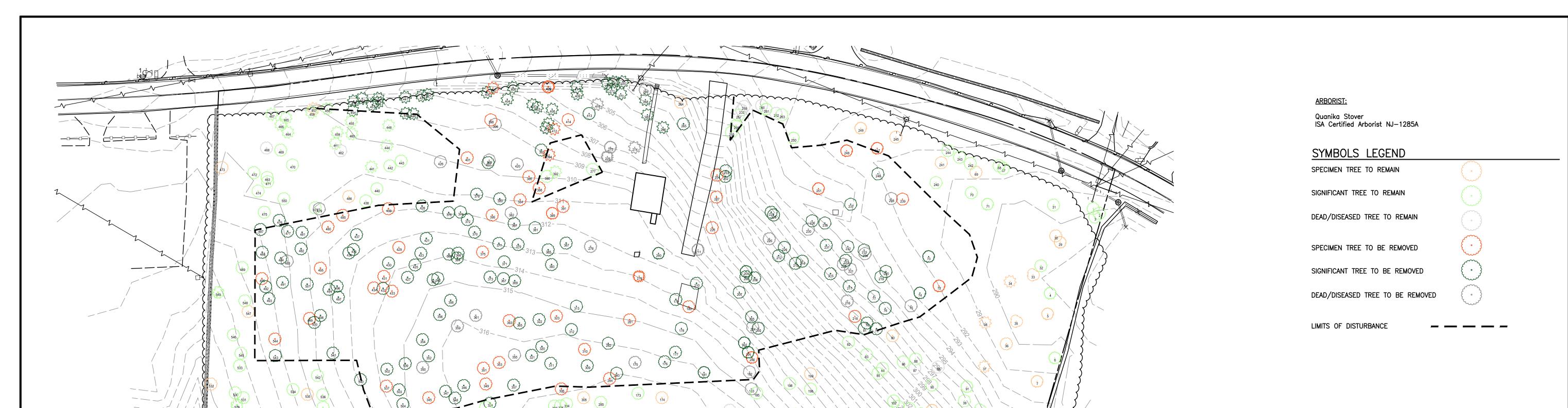
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> JW CONGREGATION SUPPORT, INC.

1005 RED MILLS ROAD WALLKILL, NY 12589-3283

NEWBURGH KINGDOM HALL OF JEHOVAH'S WITNESSES 33 OLD LITTLE BRITAIN RI NEWBURGH, NY 12550

BOUNDARY AND TOPOGRAPHIC SURVEY



SPECIMEN TREE TABLE

Tree ID # Tree Species DBH (in) Condition 24.75 Black Walnut 23.5 Maple 25.75 Maple 21.5 21.75 Maple Fair, Poor Maple 20.75 20.25 Fair, Poor Maple 27 Fair, Poor 22.25 Damaged Maple 24.5 30.5 Fair, Poor Maple 153 155 Black Cherry 20.25 38.25 Fair, Poor 22.25 Fair, Poor Maple 26.75 Maple 32.75 Fair, Poor 23.5 Fair, Poor

29.5

21.25 Fair, Poor

Fair, Poor

| 226 | Maple        | 25          | Poor              |
|-----|--------------|-------------|-------------------|
| 227 | Maple        | 26.75       | Poor              |
| 239 | Black Cherry | 51          | Critical          |
| 241 | Black Cherry | 22.25       | Poor              |
| 245 | Oak          | 25.75       | Fair, Poor        |
| 247 | Ash          | 20.75       | Fair, Poor        |
| 248 | Ash          | 22.5        | Poor              |
| 249 | Ash          | 22.25       | Fair, Poor        |
| 251 | Ash          | 25.75       | Fair, Poor        |
| 254 | Maple        | 47.75       | Critical          |
| 264 | Maple        | 27.25       | Critical          |
| 269 | Maple        | 28.75       | Diseased,<br>Poor |
| 274 | Elm          | 24.25       | Dead              |
| 276 | Douglas Fir  | 22.75       | Diseased          |
| 278 | Maple        | 40.25       | Dead              |
| 279 | Pine         | 32.5        | Fair, Poor        |
| 281 | Maple        | 27.25       | Poor              |
| 284 | Maple        | 23          | Fair, Poor        |
| 288 | Maple        | 34.25       | Poor              |
| 306 | Maple        | 33.25       | Poor, Critical    |
| 308 | Maple        | 21.25       | Poor              |
| 310 | Maple        | 25.25       | Poor              |
| 315 | Oak          | 25          | Poor              |
| 323 | Maple        | 36.75       | Fair, Poor        |
| 326 | Oak          | 23          | Poor              |
| 330 | Oak          | 22          | Fair              |
| 335 | Oak          | 32.75       | Fair, Poor        |
| 339 | Maple        | 25.5        | Poor              |
|     |              |             |                   |
| 341 | Oak          | 21.25       | Poor              |
|     | Oak<br>Oak   | 21.25<br>29 | Poor<br>Poor      |

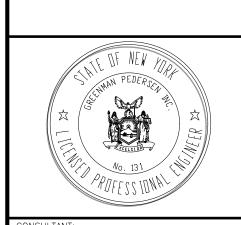
| 349 | Maple        | 23.75 | Poor                  |
|-----|--------------|-------|-----------------------|
| 351 | Maple        | 26    | Fair, Poor            |
| 353 | Maple        | 23.75 | Poor                  |
| 359 | Dead         | 21.25 | Dead,<br>Diseased     |
| 361 | Dead         | 21.25 | Dead                  |
| 363 | Maple        | 26.5  | Poor                  |
| 375 | Maple        | 29    | Poor                  |
| 384 | Maple        | 28.25 | Poor, Critical        |
| 386 | Maple        | 28    | Poor                  |
| 388 | Maple        | 29.25 | Poor, Critical        |
| 389 | Ash          | 24.25 | Fair, Poor            |
| 391 | Maple        | 23.5  | Poor                  |
| 394 | Elm          | 20.75 | Critical              |
| 395 | Maple        | 27    | Poor                  |
| 398 | Black cherry | 21.75 | Critical              |
| 399 | Black Cherry | 34.25 | Dead                  |
| 401 | Maple        | 39.5  | Poor                  |
| 402 | Elm          | 25.75 | Poor                  |
| 412 | Elm          | 26.75 | Poor                  |
| 414 | Black Cherry | 26.5  | Critical              |
| 416 | Elm          | 24    | Diseased,<br>Poor     |
| 419 | Maple        | 22.5  | Poor                  |
| 420 | Black Cherry | 26.25 | Diseased,<br>Critical |
| 422 | Elm          | 26.75 | Poor                  |
| 429 | Oak          | 22    | Poor                  |
| 431 | Maple        | 25.75 | Poor                  |
| 433 | Maple        | 21.75 | Poor                  |
| 434 | Maple        | 20.5  | Poor                  |
| 439 | Maple        | 21    | Poor                  |
| 457 | Elm          | 32.5  | Critical              |
| 473 | Oak          | 22.25 | Fair, Poor            |

| 480 | Maple        | 33    | Poor                  |
|-----|--------------|-------|-----------------------|
| 483 | Black Cherry | 23.25 | Diseased,<br>Critical |
| 485 | Maple        | 23    | Poor                  |
| 486 | Maple        | 22.5  | Poor                  |
| 490 | Maple        | 20.75 | Poor                  |
| 495 | Maple        | 23.5  | Fair, Poor            |
| 499 | Maple        | 24.25 | Poor                  |
| 508 | Maple        | 26.5  | Poor                  |
| 519 | Maple        | 20.75 | Poor                  |
| 521 | Maple        | 21.5  | Fair, Poor            |
| 525 | Maple        | 23.5  | Poor                  |
| 527 | Maple        | 20    | Poor                  |
| 528 | Maple        | 41.5  | Fair, Poor            |
| 532 | Maple        | 20.5  | Poor                  |
| 535 | Maple        | 23    | Poor                  |
| 537 | Maple        | 21.75 | Fair, Poor            |
| 544 | Maple        | 22.25 | Poor                  |
| 547 | Maple        | 21    | Fair, Poor            |

| TREE REMOVAL CALCULATIONS |          |             |  |
|---------------------------|----------|-------------|--|
|                           | SPECIMEN | SIGNIFICANT |  |
| TOTAL DBH (INCHES)        | 2,855    | 6,027       |  |
| DEAD DBH (INCHES)         | 287      | 465         |  |
| REMOVAL DBH (INCHES)      | 1,237    | 2,163       |  |
| PERCENTAGE REMOVED        | 48.2     | 38.9        |  |

- DEAD TREES ARE HIGHLIGHTED IN RED IN EACH TABLE.
   REMOVAL TREES ARE HIGHLIGHTED IN ORANGE IN EACH TABLE.
- 3. PERCENTAGE REMOVED = REMOVAL DBH/(TOTAL DBH-DEAD DBH)\*100

CIVIL ENGINEER Greenman-Pedersen, Inc. 80 Wolf Road, Suite 300 Albany, NY 12205



**NOT FOR** CONSTRUCTION THIS DRAWING PROVIDED ONLY FOR **REVIEW AND APPROVAL** 

> - 31 MAY 23 SUBMISSION TO TOWN 28 APR 23 SUBMISSION TO TOWN - 15 FEB 23 SUBMISSION TO TOWN 11 NOV 22 SUBMISSION TO TOWN 20 OCT 22 GPI CONCEPT FOR REVIEW

- 16 SEP 22 CONCEPT FOR REVIEW

MARK: DATE: DESCRIPTION:

JW CONGREGATION SUPPORT, INC.

1005 RED MILLS ROAD WALLKILL, NY 12589-3283

NEWBURGH KINGDOM HALL **OF JEHOVAH'S WITNESSES** 33 OLD LITTLE BRITAIN RD

NEWBURGH, NY 12550

TREE SURVEY

# SIGNIFICANT TREE TABLE

| Tree ID#      | Tree Species        | DBH (in)                | Tree<br>Condition        |
|---------------|---------------------|-------------------------|--------------------------|
| 1             | Maple               | 10                      | Good, Fair               |
| 2             | Maple               | 17                      | Fair                     |
| 3             | Maple               | 13.25                   | Critical                 |
| <u>4</u><br>5 | Ash<br>Ash          | 11<br>15.25             | Poor<br>Poor             |
| 6             | Ash                 | 18.75                   | Poor                     |
| 8             | Cherry              | 11.5                    | Dead                     |
| 9             | Maple               | 18                      | Fair                     |
| 11            | Maple               | 10.75                   | Fair Damaged,            |
| 13            | Black Walnut        | 15.25                   | Poor Cood Foir           |
| 14<br>15      | Oak<br>Black Walnut | 11.5<br>16.5            | Good, Fair<br>Poor       |
| 16            | Oak                 | 14.25                   | Fair                     |
| 17            | Shagbark<br>Hickory | 13                      | <br>  Fair               |
| 18            | Oak                 | 15                      | Fair                     |
| 19            | Maple               | 17                      | Fair                     |
| 20            | Oak                 | 11.75                   | Fair                     |
| 21<br>22      | Oak<br>Oak          | 14.75<br>11.75          | Fair<br>Fair             |
| 23            | Oak                 | 11.25                   | Fair                     |
| 24            | Oak                 | 11.5                    | Fair, Poor               |
| 25            | Oak                 | 10                      | Fair, Poor               |
| 26            | Oak                 | 10.75                   | Fair                     |
| 27<br>28      | Oak<br>Oak          | 11.5<br>13.25           | Good<br>Fair             |
| 31            | Maple               | 12.5                    | Fair                     |
| 32            | Maple               | 11.25                   | Fair, Poor               |
| 33            | Walnut              | 19.25                   | Fair                     |
| 35            | Walnut              | 18                      | Fair                     |
| 37<br>39      | Elm<br>Black Cherry | 18<br>11.75             | Poor<br>Fair, Poor       |
| 40            | Walnut              | 14                      | Poor                     |
| 41            | Oak                 | 11                      | Good, Fair               |
| 42            | Oak                 | 14.75                   | Fair, Poor               |
| 43<br>44      | Maple<br>Oak        | 15.25<br>13             | Fair, Poor<br>Fair       |
| 45            | Oak                 | 10.75                   | Fair, Poor               |
| 46            | Oak                 | 11.25                   | Fair, Poor               |
| 47            | Oak                 | 11.75                   | Fair                     |
| 48            | Maple<br>Maple      | 10.5                    | Fair, Poor               |
| 49<br>50      | Elm                 | 10.25<br>11.75          | Poor<br>Fair, Poor       |
| 51            | Maple               | 10.25                   | Poor                     |
| 52            | Maple               | 10.75                   | Poor                     |
| 53            | Maple               | 11.5                    | Poor<br>-                |
| 54<br>55      | Oak<br>Maple        | 11.5<br>10.25           | Poor<br>Poor             |
| 55<br>56      | Maple               | 10                      | Fair, Poor               |
| 57            | Oak                 | 10                      | Fair                     |
| 58            | Oak                 | 15.25                   | Fair                     |
| 59<br>60      | Oak                 | 19.25                   | Fair, Poor<br>Fair, Poor |
| 60<br>61      | Oak<br>Oak          | 11.75<br>11.25          | Fair, Poor               |
| 62            | Oak                 | 14.75                   | Fair                     |
| 63            | Maple               | 13.25                   | Fair, Poor               |
| 64            | Maple               | 13.25                   | Fair<br>Diseased,        |
| 65            | Black Cherry        | 12                      | Critical                 |
| 66<br>67      | Maple<br>Maple      | 10                      | Fair, Poor               |
| 67<br>68      | Maple               | 14.25<br>19             | Poor<br>Fair, Poor       |
| 70            | Maple               | 19.5                    | Fair                     |
| 71            | Ash                 | 12                      | Fair                     |
| 73            | Ash                 | 19.5                    | Fair, Poor               |
| 74            | Ash                 | 12.75                   | Fair<br>Diseased,        |
| 75            | Black Cherry        | 18.75                   | Damaged,<br>Critical     |
| 76            | Oak                 | 15.25                   | Poor                     |
| 77            | Black Cherry        | 15.25                   | Poor                     |
| 78            | Maple               | 10                      | Poor                     |
| 79            | Maple<br>Oak        | 10.25<br>16.25          | Fair<br>Fair, Poor       |
| 81            | · Van               | 10.20                   | ,                        |
| 81<br>82      | Oak                 | 10.75                   | Poor                     |
| 82            | Oak                 |                         | Damaged,                 |
|               |                     | 10.75<br>14.25<br>13.75 |                          |
| 82<br>83      | Oak<br>Oak          | 14.25                   | Damaged,<br>Poor         |

| 88  | Oak  | 13.25   | Poor  |
|---|--|---|---|
| 89  | Black Cherry   | 10.75   | Dead<br>Fair Poor   |
| 90<br>91  | Oak<br>Ash   | 11<br>10.25   | Fair, Poor<br>Poor  |
| 94  | Oak  | 10.25   | Poor  |
| 95  | Oak  | 10.75   | Poor  |
| 96  | Oak  | 11.5  | Poor  |
| 97  | Oak  | 12  | Poor  |
| 98  | Oak  | 13  | Fair, Poor  |
| 99  | Oak  | 15.25   | Poor  |
| 100   | Oak  | 11.75   | Poor  |
| 101<br>102  | Oak<br>Oak   | 16<br>11.75   | Poor<br>Poor  |
| 103   | Oak  | 13.5  | Fair, Poor  |
| 104   | Oak  | 10.5  | Fair  |
| 105   | Oak  | 16.25   | Fair  |
| 106   | Oak  | 19  | Fair  |
| 108   | Maple  | 11  | Fair  |
| 109   | Maple  | 16.75   | Poor  |
| 110   | Oak  | 16.75   | Fair, Poor  |
| 111   | Oak  | 15  | Fair, Poor  |
| 113<br>114  | Oak<br>Oak   | 13.75<br>13.5   | Poor<br>Poor  |
| 115   | Maple  | 17.25   | Dead  |
| 116   | Oak  | 11  | Fair, Poor  |
| 118   | Maple  | 15  | Fair, Poor  |
| 119   | Oak  | 15  | Poor  |
| 120   | Oak  | 13  | Fair, Poor  |
| 121   | Oak  | 14.25   | Fair, Poor  |
| 122<br>123  | Oak<br>Oak   | 12<br>11.5  | Fair, Poor<br>Poor  |
| 124   | Maple  | 15.5  | Poor  |
|   | Maple  |   | Damaged,  |
| 125<br>126  | Maple  | 12.25<br>10   | Fair, Poor<br>Poor  |
| 127   | Maple  | 10.75   | Fair, Poor  |
| 128   | Ash  | 10.25   | Fair, Poor  |
| 129   | Maple  | 12  | Fair, Poor  |
| 130   | Oak  | 20  | Poor  |
| 131   | Maple  | 12.75   | Fair  |
| 132   | Hickory  | 12.75   | Fair, Poor  |
| 133   | Maple<br>Shagbark  | 15.75   | Poor  |
|   |  |   | 1   |
| 134   | Hickory  | 12.5  | Fair, Poor  |
| 135   | Hickory<br>Maple   | 18.5  | Fair, Poor  |
| 135<br>136  | Hickory  Maple  Dead   | 18.5<br>12.5  | Fair, Poor<br>Dead  |
| 135<br>136<br>137   | Hickory<br>Maple   | 18.5<br>12.5<br>10.75   | Fair, Poor  |
| 135<br>136  | Hickory  Maple  Dead  Maple  | 18.5<br>12.5  | Fair, Poor  Dead  Fair, Poor  |
| 135<br>136<br>137<br>139  | Hickory  Maple  Dead  Maple  Maple   | 18.5<br>12.5<br>10.75<br>11.75  | Fair, Poor  Dead  Fair, Poor  Fair, Poor  |
| 135<br>136<br>137<br>139<br>140   | Maple Dead Maple Maple Maple Hickory Oak   | 18.5<br>12.5<br>10.75<br>11.75<br>13.25   | Fair, Poor  Dead  Fair, Poor  Fair, Poor  Fair  |
| 135<br>136<br>137<br>139<br>140<br>141<br>143   | Maple Dead Maple Maple Maple Hickory Oak Maple   | 18.5<br>12.5<br>10.75<br>11.75<br>13.25<br>11.5<br>12.5   | Fair, Poor  Dead  Fair, Poor  Fair, Poor  Fair  Fair  Good, Fair  Fair  |
| 135<br>136<br>137<br>139<br>140<br>141<br>143<br>144<br>145   | Maple Dead Maple Maple Maple Maple Maple Hickory Oak Maple Maple   | 18.5<br>12.5<br>10.75<br>11.75<br>13.25<br>11.5<br>12.5<br>11   | Fair, Poor  Dead  Fair, Poor  Fair, Poor  Fair  Good, Fair  Fair  Fair  Fair  Fair  Fair  |
| 135<br>136<br>137<br>139<br>140<br>141<br>143   | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple Oak Shagbark  | 18.5<br>12.5<br>10.75<br>11.75<br>13.25<br>11.5<br>12.5   | Fair, Poor  Dead  Fair, Poor  Fair, Poor  Fair  Fair  Good, Fair  Fair  |
| 135<br>136<br>137<br>139<br>140<br>141<br>143<br>144<br>145<br>146  | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple Maple Maple Maple Hickory   | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 16.75   | Fair, Poor  Dead  Fair, Poor  Fair, Poor  Fair  Good, Fair  Fair  Fair, Poor  Poor  Fair, Poor  |
| 135<br>136<br>137<br>139<br>140<br>141<br>143<br>144<br>145<br>146<br>147   | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Oak Shagbark Hickory Maple  | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 16.75 11 11.5   | Fair, Poor  Dead  Fair, Poor  Fair, Poor  Fair  Good, Fair  Fair  Fair, Poor  Poor  Fair, Poor  Fair, Poor  Fair, Poor  Fair, Poor  Fair  |
| 135<br>136<br>137<br>139<br>140<br>141<br>143<br>144<br>145<br>146<br>147<br>148<br>149   | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple  Maple Hickory Oak Maple Maple Oak Shagbark Hickory Maple Oak   | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 16.75 11 11.5 14.75   | Fair, Poor  Dead  Fair, Poor  Fair, Poor  Fair  Good, Fair  Fair  Fair, Poor  Poor  Fair, Poor  Fair, Poor  Fair, Poor  Fair  Foor  |
| 135<br>136<br>137<br>139<br>140<br>141<br>143<br>144<br>145<br>146<br>147<br>148<br>149<br>150                                  | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Oak Shagbark Hickory Maple  | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 16.75 11 11.5 14.75 11.5  | Fair, Poor  Dead  Fair, Poor  Fair, Poor  Fair  Good, Fair  Fair  Fair, Poor  Poor  Fair, Poor  Fair, Poor  Fair, Poor  Fair, Poor  Fair  |
| 135<br>136<br>137<br>139<br>140<br>141<br>143<br>144<br>145<br>146<br>147<br>148<br>149<br>150<br>151                           | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple  Maple Oak Shagbark Hickory Maple Oak Shagbark Hickory Maple Oak Shagbark Hickory Maple Oak Black Cherry  | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 16.75 11 11.5 14.75 11.5 15.5   | Fair, Poor  Dead  Fair, Poor  Fair, Poor  Fair  Good, Fair  Fair  Fair, Poor  Poor  Fair, Poor  Damaged,  |
| 135<br>136<br>137<br>139<br>140<br>141<br>143<br>144<br>145<br>146<br>147<br>148<br>149<br>150<br>151<br>152                    | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple Maple Maple Oak Shagbark Hickory Maple Oak Shagbark Hickory Maple Oak Black Cherry  | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 16.75 11 11.5 14.75 11.5 15.5 10.25   | Fair, Poor  Dead  Fair, Poor  Fair, Poor  Fair  Good, Fair  Fair  Fair, Poor  Poor  Fair, Poor  Fair, Poor  Fair, Poor  Fair, Poor  Critical  |
| 135<br>136<br>137<br>139<br>140<br>141<br>143<br>144<br>145<br>146<br>147<br>148<br>149<br>150<br>151                           | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple Oak Shagbark Hickory Maple Oak Shagbark Hickory Maple Oak Black Cherry Maple  | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 16.75 11 11.5 14.75 11.5 15.5   | Fair, Poor  Dead  Fair, Poor  Fair, Poor  Fair  Good, Fair  Fair  Fair, Poor  Poor  Fair, Poor  Damaged,  |
| 135 136 137 139 140 141 143 144 145 146 147 148 149 150 151 152 154   | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple Maple Oak Shagbark Hickory Maple Oak Black Cherry Maple Black Cherry Maple  | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 16.75 11.5 14.75 11.5 15.5 10.25 10   | Fair, Poor  Dead Fair, Poor Fair, Poor Fair Good, Fair Fair Fair, Poor Poor Fair, Poor Fair, Poor Fair, Poor Cair, Poor Damaged, Critical Fair, Poor  |
| 135 136 137 139 140 141 143 144 145 146 147 148 149 150 151 152 154 156   | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple Oak Shagbark Hickory Maple Oak Black Cherry Maple Black Cherry Maple Maple Maple Maple  | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 16.75 11 11.5 14.75 11.5 15.5 10.25 10 14.75  | Fair, Poor  Dead  Fair, Poor  Fair, Poor  Fair  Good, Fair  Fair, Poor  Poor  Fair, Poor  Damaged,  Critical  Fair, Poor  |
| 135 136 137 139 140 141 143 144 145 146 147 148 149 150 151 152 154 156 157   | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple Oak Shagbark Hickory Maple Oak Black Cherry Maple Black Cherry Maple Maple Maple Maple Maple Maple  | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 16.75 11 11.5 14.75 11.5 10.25 10 14.75 13.25   | Fair, Poor  Dead  Fair, Poor  Fair, Poor  Fair  Good, Fair  Fair, Poor  Poor  Fair, Poor  |
| 135 136 137 139 140 141 143 144 145 146 147 148 149 150 151 152 154 156 157 158   | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple Oak Shagbark Hickory Maple Oak Black Cherry Maple Black Cherry Maple  | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 16.75 11 11.5 14.75 11.5 15.5 10.25 10 14.75 13.25 12.5   | Fair, Poor  Dead  Fair, Poor  Fair, Poor  Fair  Good, Fair  Fair  Fair, Poor  Poor  Fair, Poor  |
| 135 136 137 139 140 141 143 144 145 146 147 148 149 150 151 152 154 156 157 158 159   | Maple Dead Maple Maple Maple Hickory Oak Maple Maple Maple Oak Shagbark Hickory Maple Oak Black Cherry Maple Black Cherry Maple  | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 16.75 11.5 14.75 11.5 15.5 10.25 10 14.75 13.25 12.5 11.5 13.25 11.5  | Fair, Poor  Dead  Fair, Poor  Fair, Poor  Fair  Good, Fair  Fair, Poor  Poor  Fair, Poor  Fair, Poor  Fair, Poor  Fair, Poor  Fair, Poor  Fair, Poor  Damaged,  Critical  Fair, Poor  |
| 135 136 137 139 140 141 143 144 145 146 147 148 149 150 151 152 154 156 157 158 159   | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple Maple Oak Shagbark Hickory Maple Oak Black Cherry Maple Black Cherry Maple  | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 16.75 11.5 14.75 11.5 15.5 10.25 10 14.75 13.25 12.5 11.5 13.25 11.5  | Fair, Poor  Pead Fair, Poor Fair, Poor Fair Good, Fair Fair Fair, Poor Poor Fair, Poor Fair, Poor Fair, Poor Fair, Poor Fair, Poor Fair, Poor Damaged, Critical Fair, Poor   |
| 135 136 137 139 140 141 143 144 145 146 147 148 149 150 151 152 154 156 157 158 159 160 161                                     | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple Maple Oak Shagbark Hickory Maple Oak Black Cherry Maple Black Cherry Maple  | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 16.75 11.5 14.75 11.5 15.5 10.25 10 14.75 13.25 12.5 11.5 13.25 11.5  | Fair, Poor Pair, Poor Fair, Poor Fair Good, Fair Fair Fair Fair, Poor Poor Fair, Poor Fair, Poor Fair, Poor Damaged, Critical Fair, Poor Diseased, Poor, Critical Poor Fair, Poor   |
| 135 136 137 139 140 141 143 144 145 146 147 148 149 150 151 152 154 156 157 158 159 160 161 162                                 | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple Maple Oak Shagbark Hickory Maple Oak Black Cherry Maple Black Cherry Maple  | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 16.75 11.5 14.75 11.5 15.5 10.25 10 14.75 13.25 11.5 15.5 10.25 10 14.75 13.25 10.25 10 14.75 13.25 10.25   | Fair, Poor Pair, Poor Fair Fair Good, Fair Fair Fair, Poor Poor Fair, Poor Damaged, Critical Fair, Poor Diseased, Poor, Critical Poor   |
| 135 136 137 139 140 141 143 144 145 146 147 148 149 150 151 152 154 156 157 158 159 160 161 162 163                             | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple Maple Oak Shagbark Hickory Maple Oak Black Cherry Maple Black Cherry Maple  | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 16.75 11.5 14.75 11.5 15.5 10.25 10 14.75 13.25 12.5 11.5 15.5 10.25 10.25 10.25 10.25 10.25 11.5   | Fair, Poor  Pead Fair, Poor Fair, Poor Fair Good, Fair Fair Fair Fair, Poor Poor Fair, Poor Fair, Poor Damaged, Critical Fair, Poor Diseased, Poor, Critical Poor Fair, Poor Fair, Poor Fair, Poor Fair, Poor  |
| 135 136 137 139 140 141 143 144 145 146 147 148 149 150 151 152 154 156 157 158 159 160 161 162 163 164 165 169                 | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple Maple Oak Shagbark Hickory Maple Oak Black Cherry Maple   | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 16.75 11 11.5 14.75 11.5 15.5 10.25 10 14.75 13.25 12.5 11.5 15.5 10.25 11.5 15.5 10.25 11.5 15.5 10.25 11.5 15.5 10.25 11.5  | Fair, Poor Pead Fair, Poor Fair, Poor Fair Good, Fair Fair Fair Fair, Poor Poor Fair, Poor Fair, Poor Fair, Poor Damaged, Critical Fair, Poor Diseased, Poor, Critical Poor Fair, Poor Poor Fair, Poor Poor  |
| 135 136 137 139 140 141 143 144 145 146 147 148 149 150 151 152 154 156 157 158 159 160 161 162 163 164 165 169 170             | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple Maple Oak Shagbark Hickory Maple Oak Black Cherry Maple   | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 16.75 11 11.5 14.75 11.5 15.5 10.25 10 14.75 13.25 12.5 11.5 15.15 15.15 16.75 10.25 18.25 18.25 18.75  | Fair, Poor Pead Fair, Poor Fair, Poor Fair Good, Fair Fair Fair, Poor Poor Fair, Poor Fair, Poor Fair, Poor Damaged, Critical Fair, Poor Poor Fair, Poor Diseased, Poor, Critical Poor Fair, Poor Poor Fair, Poor Fair, Poor Poor Poor  |
| 135 136 137 139 140 141 143 144 145 146 147 148 149 150 151 152 154 156 157 158 159 160 161 162 163 164 165 169 170 171         | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple Maple Oak Shagbark Hickory Maple Oak Black Cherry Maple   | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 11 16.75 11.5 14.75 11.5 15.5 10.25 10 14.75 13.25 12.5 11.5 16.75 10.25 18.25 14.5 12.75 18.75 13.75 13.75   | Fair, Poor Pead Fair, Poor Fair, Poor Fair Good, Fair Fair Fair, Poor Poor Fair, Poor Fair, Poor Damaged, Critical Fair, Poor Diseased, Poor, Critical Poor Fair, Poor  |
| 135 136 137 139 140 141 143 144 145 146 147 148 149 150 151 152 154 156 157 158 159 160 161 162 163 164 165 169 170 171 172     | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple Maple Oak Shagbark Hickory Maple Oak Black Cherry Maple                                     | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 11 16.75 11.5 14.75 11.5 15.5 10.25 10 14.75 13.25 12.5 11.5 15.5 10.25 11.5 15.7 10.25 11.5 15.7 16.75 10.25 11.5 15.7 16.75 10.25 11.5 15.7 16.75 10.25 11.5 15.75 10.25 11.5 | Fair, Poor Pead Fair, Poor Fair, Poor Fair Good, Fair Fair Fair, Poor Poor Fair, Poor Fair, Poor Damaged, Critical Fair, Poor Diseased, Poor, Critical Poor Fair, Poor Fair, Poor Diseased, Poor Critical Poor Fair, Poor Poor Fair, Poor  |
| 135 136 137 139 140 141 143 144 145 146 147 148 149 150 151 152 154 156 157 158 159 160 161 162 163 164 165 169 170 171 172 173 | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple Maple Oak Shagbark Hickory Maple Oak Black Cherry Maple | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 11 16.75 11.5 11.5 14.75 11.5 15.5 10.25 10 14.75 13.25 12.5 11.5 15.15 16.75 10.25 18.25 12.5 14.5 12.75 18.75 13 19.75 18   | Fair, Poor  Dead  Fair, Poor  Fair, Poor  Fair  Good, Fair  Fair  Fair, Poor  Poor  Fair, Poor  Fair, Poor  Damaged, Critical  Fair, Poor  Fair, Poor |
| 135 136 137 139 140 141 143 144 145 146 147 148 149 150 151 152 154 156 157 158 159 160 161 162 163 164 165 169 170 171 172     | Maple Dead Maple Maple Maple Maple Hickory Oak Maple Maple Maple Oak Shagbark Hickory Maple Oak Black Cherry Maple                                     | 18.5 12.5 10.75 11.75 13.25 11.5 12.5 11 11 11 16.75 11.5 14.75 11.5 15.5 10.25 10 14.75 13.25 12.5 11.5 15.5 10.25 11.5 15.7 10.25 11.5 15.7 16.75 10.25 11.5 15.7 16.75 10.25 11.5 15.7 16.75 10.25 11.5 15.75 10.25 11.5 | Fair, Poor Pead Fair, Poor Fair, Poor Fair Good, Fair Fair Fair, Poor Poor Fair, Poor Fair, Poor Damaged, Critical Fair, Poor Diseased, Poor, Critical Poor Fair, Poor Fair, Poor Diseased, Poor Critical Poor Fair, Poor Poor Fair, Poor  |

| 178   | p  |   | Damaged,   |
|---|--|---|--|
|   | Black Cherry   | 16  | Poor   |
| 179   | Maple  | 14.25   | Fair, Poor<br>Fair, Poor   |
| 181   | Ash  | 12.5  | Diseased,  |
| 182   | Black cherry  Maple  | 16.75   | Critical  Dood Critical  |
| 184<br>185  | Oak  | 10.5<br>15.5  | Dead, Critical<br>Fair, Poor   |
| 187   | Oak  | 10.75   | Poor   |
| 188   | Maple  | 10  | Fair, Poor   |
| 189   | Maple  | 10.25   | Critical   |
| 190   | Maple  | 15  | Fair, Poor   |
| 191   | Oak  | 11.75   | Fair, Poor   |
| 192   | Maple  | 12.5  | Poor   |
| 193   | Oak  | 14.75   | Fair Boor  |
| 194<br>195  | Linden<br>Oak  | <u>11.5</u><br>11   | Fair, Poor<br>Fair, Poor   |
| 196   | Oak  | 18.75   | Fair   |
| 197   | Maple  | 11.75   | Fair   |
| 198   | Oak  | 19.25   | Fair   |
| 201   | Ash  | 13.5  | Poor   |
| 202   | Ash  | 19.5  | Fair, Poor   |
| 203   | Oak  | 15.75   | Fair, Poor<br>Dead,  |
| 204   | Black cherry   | 11  | Diseased   |
| 205   | Oak  | 15.25   | Fair, Poor   |
| 206   | Maple  | 12.5  | Fair, Poor   |
| 207   | Black Cherry   | 15.5  | Poor   |
| 208   | Maple  | 12.75   | Fair, Poor<br>Fair, Poor   |
| 209<br>210  | Ash<br>Maple   | 18.5<br>18.25   | Fair, Poor   |
|   |  |   | Diseased,  |
| 211<br>212  | Ash<br>Maple   | 13.75<br>10   | Critical<br>Poor   |
| 213   | Maple  | 12.75   | Poor   |
| 214   | Oak  | 13  | Fair, Poor   |
| 215   | Maple  | 16  | Fair, Poor   |
| 216   | Maple  | 14  | Dead   |
| 217   | Maple  | 18.75   | Poor   |
| 219   | Black Cherry   | 17.25   | Poor   |
| 220   | Black Cherry   | 15  | Fair, Poor   |
| 221   | Dead   | 17.5  | Dead<br>Dead,  |
| 222   | Black cherry   | 17.25   | Diseased   |
| 223<br>224  | Maple<br>Oak   | 11<br>18.25   | Fair, Poor<br>Fair   |
| 224   |  |   | Diseased,  |
| 005   | Maple  | 15.5  |  |
| 225   | Maple  | 12 75   | Poor   |
| 228   | Maple<br>Oak   | 12.75<br>13   | Poor<br>Poor<br>Fair   |
| 228<br>229  | Oak  | 13  | Poor<br>Fair<br>Dead,  |
| 228<br>229<br>230   | Oak<br>Black cherry  | 13<br>12.75   | Poor Fair Dead, Diseased   |
| 228<br>229<br>230<br>231  | Oak  | 13<br>12.75<br>13.25  | Poor Fair Dead, Diseased Fair, Poor  |
| 228<br>229<br>230   | Oak Black cherry Maple   | 13<br>12.75   | Poor Fair Dead, Diseased   |
| 228<br>229<br>230<br>231<br>232   | Oak Black cherry Maple Black Cherry  | 13<br>12.75<br>13.25<br>15.25   | Poor Fair Dead, Diseased Fair, Poor Poor   |
| 228<br>229<br>230<br>231<br>232<br>233  | Oak  Black cherry  Maple  Black Cherry  Black Cherry   | 13<br>12.75<br>13.25<br>15.25<br>14.25  | Poor Fair Dead, Diseased Fair, Poor Poor Fair  |
| 228<br>229<br>230<br>231<br>232<br>233<br>234   | Oak  Black cherry  Maple  Black Cherry  Black Cherry  Black Cherry  Black Cherry  Black Cherry   | 13<br>12.75<br>13.25<br>15.25<br>14.25<br>10.25   | Poor Fair Dead, Diseased Fair, Poor Poor Fair Dead   |
| 228<br>229<br>230<br>231<br>232<br>233<br>234<br>235<br>236<br>237  | Oak  Black cherry  Maple  Black Cherry   | 13 12.75 13.25 15.25 14.25 10.25 10 10 10 12.5  | Poor Fair Dead, Diseased Fair, Poor Poor Fair Dead Poor Poor Poor  |
| 228<br>229<br>230<br>231<br>232<br>233<br>234<br>235<br>236<br>237<br>238   | Oak  Black cherry  Maple  Black Cherry   | 13 12.75 13.25 15.25 14.25 10.25 10 10 11 12.5 13.25  | Poor Fair Dead, Diseased Fair, Poor Poor Fair Dead Poor Poor Poor Dead   |
| 228 229 230 231 232 233 234 235 236 237 238 240   | Oak  Black cherry  Maple  Black Cherry   | 13 12.75 13.25 15.25 14.25 10.25 10 10 12.5 13.25 13.75   | Poor Fair Dead, Diseased Fair, Poor Poor Fair Dead Poor Poor Poor Poor Poor Poor Poor Poo  |
| 228 229 230 231 232 233 234 235 236 237 238 240 242   | Oak  Black cherry  Maple  Black Cherry   | 13 12.75 13.25 15.25 14.25 10.25 10 10 12.5 13.25 13.75 11.75   | Poor Fair Dead, Diseased Fair, Poor Poor Fair Dead Poor Poor Poor Critical   |
| 228 229 230 231 232 233 234 235 236 237 238 240   | Oak  Black cherry  Maple  Black Cherry  Maple  | 13 12.75 13.25 15.25 14.25 10.25 10 10 11 11 11 12.5 13.75 11.75 10   | Poor Fair Dead, Diseased Fair, Poor Poor Fair Dead Poor Poor Poor Poor Poor Poor Poor Poo  |
| 228 229 230 231 232 233 234 235 236 237 238 240 242 243   | Oak  Black cherry  Maple  Black Cherry  Maple  Maple   | 13 12.75 13.25 15.25 14.25 10.25 10 10 12.5 13.25 13.75 11.75   | Poor Fair Dead, Diseased Fair, Poor Poor Fair Dead Poor Poor Poor Critical Fair, Poor  |
| 228 229 230 231 232 233 234 235 236 237 238 240 242 243 244   | Oak  Black cherry  Maple  Black Cherry  Maple  Maple  Maple  | 13 12.75 13.25 15.25 14.25 10.25 10 10 10 12.5 13.75 11.75 10 12.25   | Poor Fair Dead, Diseased Fair, Poor Poor Fair Dead Poor Poor Poor Critical Fair, Poor Fair, Poor   |
| 228 229 230 231 232 233 234 235 236 237 238 240 242 243 244 246   | Oak  Black cherry  Maple  Black Cherry  Maple  Maple  Maple  Black cherry  Ash  Maple  | 13 12.75 13.25 15.25 14.25 10.25 10 10 10 12.5 13.75 11.75 10 12.25 19.75   | Poor Fair Dead, Diseased Fair, Poor Poor Poor Poor Poor Poor Critical Fair, Poor Critical Critical   |
| 228 229 230 231 232 233 234 235 236 237 238 240 242 243 244 246 250 252 253   | Oak Black cherry Maple Black Cherry Maple Maple Maple Black cherry Ash Maple Maple Maple   | 13 12.75 13.25 15.25 14.25 10.25 10 10 10 12.5 13.75 11.75 10 12.25 19.75 19.75 10.75   | Poor Fair Dead, Diseased Fair, Poor Poor Poor Poor Poor Poor Poor Critical Fair, Poor Critical Fair, Poor Fair, Poor Critical Fair, Poor Poor Poor Poor Poor Poor Poor Poor  |
| 228 229 230 231 232 233 234 235 236 237 238 240 242 243 244 246 250 252 253 255   | Oak Black cherry Maple Black Cherry Maple Maple Maple Black cherry Ash Maple   | 13 12.75 13.25 15.25 14.25 10.25 10 10 10 12.5 13.75 11.75 10 12.25 19.75 19.75 10.75 10.5  | Poor Fair Dead, Diseased Fair, Poor Poor Poor Poor Poor Poor Dead Poor Critical Fair, Poor Critical Fair, Poor   |
| 228 229 230 231 232 233 234 235 236 237 238 240 242 243 244 246 250 252 253 255 256                                     | Oak Black cherry Maple Black Cherry Maple Maple Maple Black cherry Ash Maple   | 13 12.75 13.25 15.25 14.25 10.25 10 10 10 12.5 13.75 11.75 10 12.25 19.75 19.75 10.75 10.5 11.5   | Poor Fair Dead, Diseased Fair, Poor Poor Poor Poor Poor Poor Poor Critical Fair, Poor Critical Fair, Poor   |
| 228 229 230 231 232 233 234 235 236 237 238 240 242 243 244 246 250 252 253 255 256 257                                 | Oak Black cherry Maple Black Cherry Maple Maple Maple Black cherry Ash Maple   | 13 12.75 13.25 15.25 14.25 10.25 10 10 10 12.5 13.75 11.75 10 12.25 19.75 19.75 10.75 10.5 11.5 10.5  | Poor Fair Dead, Diseased Fair, Poor Poor Poor Poor Poor Poor Dead Poor Critical Fair, Poor  |
| 228 229 230 231 232 233 234 235 236 237 238 240 242 243 244 246 250 252 253 255 256 257 258                             | Oak Black cherry Maple Black Cherry Maple Maple Maple Maple Black cherry Ash Maple Maple Maple Maple Maple Maple Maple Maple Ash  | 13 12.75 13.25 15.25 14.25 10.25 10 10 10 12.5 13.75 11.75 10 12.25 19.75 19.75 10.75 10.5 11.5 10.5  | Poor Fair Dead, Diseased Fair, Poor Poor Fair Dead Poor Poor Poor Dead Poor Critical Fair, Poor Dead Diseased,  |
| 228 229 230 231 232 233 234 235 236 237 238 240 242 243 244 246 250 252 253 255 256 257 258                             | Oak Black cherry Maple Black Cherry Maple Ash Maple Ash Maple  | 13 12.75 13.25 15.25 14.25 10.25 10 10 10 12.5 13.75 11.75 10 12.25 19.75 19.75 10.75 10.5 11.5 10.5 11.5 10.5 11.5 10.5  | Poor Fair Dead, Diseased Fair, Poor Poor Poor Poor Poor Poor Poor Critical Fair, Poor Poor Fair, Poor Dead Doseased, Poor   |
| 228 229 230 231 232 233 234 235 236 237 238 240 242 243 244 246 250 252 253 255 256 257 258 260                         | Oak Black cherry Maple Black Cherry Maple Maple Maple Maple Maple Maple Maple Maple Ash Maple  | 13 12.75 13.25 15.25 14.25 10.25 10 10 10 12.5 13.75 11.75 10 12.25 19.75 19.75 10.75 10.5 11.5 10.5 11.5 10.5 11.75  | Poor Fair Dead, Diseased Fair, Poor Poor Poor Poor Poor Poor Dead Poor Critical Fair, Poor Critical Fair, Poor Dead Diseased, Poor Dead Diseased, Poor Dead  |
| 228 229 230 231 232 233 234 235 236 237 238 240 242 243 244 246 250 252 253 255 256 257 258 259 260 261                 | Oak Black cherry Maple Black Cherry Maple Maple Maple Maple Maple Maple Maple Maple Maple Ash Maple Ash  | 13 12.75 13.25 15.25 14.25 10.25 10 10 10 12.5 13.75 11.75 10 12.25 19.75 19.75 10.75 10.5 11.5 10.5 11.5 10.5 11.5 14.25 13 14.25  | Poor Fair Dead, Diseased Fair, Poor Poor Poor Poor Poor Poor Poor Poor   |
| 228 229 230 231 232 233 234 235 236 237 238 240 242 243 244 246 250 252 253 255 256 257 258 259 260 261                 | Oak Black cherry Maple Black Cherry Maple Maple Maple Maple Maple Maple Maple Maple Maple Ash Maple Ash Maple Ash Maple  | 13 12.75 13.25 15.25 14.25 10.25 10 10 10 12.5 13.75 11.75 10 12.25 19.75 19.75 10.75 10.5 11.5 10.5 11.5 10.5 11.75 10.5 11.75 10.5 11.75  | Poor Fair Dead, Diseased Fair, Poor Poor Poor Poor Poor Poor Poor Dead Poor Critical Fair, Poor Critical Fair, Poor Dead Diseased, Poor Dead Fair, Poor Dead Diseased, Poor Dead Fair, Poor  |
| 228 229 230 231 232 233 234 235 236 237 238 240 242 243 244 246 250 252 253 255 256 257 258 259 260 261 262 263         | Oak Black cherry Maple Black Cherry Maple Maple Maple Maple Maple Maple Maple Maple Maple Ash Maple Ash Maple                                     | 13 12.75 13.25 15.25 14.25 10.25 10 10 10 12.5 13.75 11.75 10 12.25 19.75 19.75 10.75 10.5 11.5 10.5 11.5 10.5 11.75 10.5 11.75 10.5 11.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75  | Poor Fair Dead, Diseased Fair, Poor Poor Poor Poor Poor Poor Poor Dead Poor Critical Fair, Poor Dead Diseased, Poor Dead Fair, Poor              |
| 228 229 230 231 232 233 234 235 236 237 238 240 242 243 244 246 250 252 253 255 256 257 258 259 260 261                 | Oak Black cherry Maple Black Cherry Maple Maple Maple Maple Maple Maple Maple Maple Maple Ash Maple Ash Maple Ash Maple  | 13 12.75 13.25 15.25 14.25 10.25 10 10 10 12.5 13.75 11.75 10 12.25 19.75 19.75 10.75 10.5 11.5 10.5 11.5 10.5 11.5 10.5 15.75 14.25 13 14.25 10 15.5   | Poor Fair Dead, Diseased Fair, Poor Poor Poor Poor Poor Poor Poor Dead Poor Critical Fair, Poor Dead Fair, Poor Fair, Poor Fair, Poor |
| 228 229 230 231 232 233 234 235 236 237 238 240 242 243 244 246 250 252 253 255 256 257 258 259 260 261 262 263 265     | Oak Black cherry Maple Black Cherry Maple Maple Maple Maple Maple Maple Maple Maple Ash Maple Ash Maple | 13 12.75 13.25 15.25 14.25 10.25 10 10 10 12.5 13.75 11.75 10 12.25 19.75 19.75 10.75 10.5 11.5 10.5 11.5 10.5 11.75 10.5 11.75 10.5 11.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75  | Poor Fair Dead, Diseased Fair, Poor Poor Poor Poor Poor Poor Poor Dead Poor Critical Fair, Poor Critical Fair, Poor Dead Diseased, Poor Dead Fair, Poor                |
| 228 229 230 231 232 233 234 235 236 237 238 240 242 243 244 246 250 252 253 255 256 257 258 259 260 261 262 263 265 266 | Oak Black cherry Maple Black Cherry Maple Maple Maple Maple Maple Maple Maple Maple Ash Maple Ash Maple Ash Maple Maple Ash                                   | 13 12.75 13.25 15.25 14.25 10.25 10 10 10 12.5 13.75 11.75 10 12.25 19.75 12.75 10.75 10.5 11.5 10.5 10 | Poor Fair Dead, Diseased Fair, Poor Poor Poor Poor Poor Poor Poor Poor   |

| 273  | Elm  | 13.5   | Poor  |
|--|--|--|---|
| 275  | Ash<br>Maple   | 13.75  | Dead  |
| 277<br>280   | Ash  | 12.5<br>18   | Poor<br>Fair, Poor  |
| 282  | Black Cherry   | 18.75  | Poor  |
| 283  | Black Cherry   | 13   | Fair, Poor  |
| 285  | Maple  | 12.75  | Fair  |
| 286  | Maple  | 14.75  | Fair, Poor  |
| 287  | Maple  | 13   | Poor  |
| 289  | Maple  | 18   | Poor  |
| 290  | Maple  | 13.5   | Poor  |
| 291  | Maple  | 11   | Fair, Poor  |
| 292  | Maple  | 11   | Poor<br>-   |
| 293  | Oak  | 18.25  | Poor Critical   |
| 294  | Ash  | 16.25  | Poor, Critical  |
| 295<br>296   | Oak<br>Oak   | 10<br>13.25  | Poor<br>Fair, Poor  |
| 297  | Oak  | 13   | Fair  |
| 298  | Oak  | 13   | Fair  |
| 299  | Oak  | 16   | Fair, Poor  |
| 300  | Oak  | 15.75  | Fair, Poor  |
| 301  | Oak  | 11.75  | Poor  |
| 302  | Oak  | 13.25  | Fair, Poor  |
| 303  | Maple  | 12.5   | Fair, Poor  |
| 304  | Black Cherry   | 16.25  | Poor  |
| 305  | Maple  | 15.75  | Poor  |
| 307  | Maple  | 13.75  | Poor  |
| 309  | Maple  | 12.5   | Poor  |
| 311  | Maple  | 12   | Poor, Critical  |
| 312  | Oak  | 11.25  | Poor  |
| 313  | Black cherry  Maple  | 14.5   | Poor  |
| 314  | Maple  | 13.5   | Poor<br>Fair, Poor  |
| 316<br>317   | Oak  | 11.25<br>13.25   | Fair, Poor  |
| 318  | Maple  | 12.75  | Poor  |
| 319  | Oak  | 15.25  | Fair  |
| 320  | Maple  | 15.25  | Fair, Poor  |
| 321  | Maple  | 11   | Fair  |
| 322  | Maple  | 14.5   | Poor  |
| 324  | Maple  | 10.25  | Fair, Poor  |
| 325  | Maple  | 10.75  | Fair, Poor  |
| 327  | Oak  | 18.25  | Fair, Poor  |
| 328  | Ash  | 10   | Fair, Poor  |
| 329  | Oak  | 11.75  | Fair, Poor  |
| 331  | Oak  | 16.75  | Fair, Poor  |
| 332  | Maple<br>Maple   | 11.75  | Poor<br>Fair, Poor  |
| 333  | Shagbark   | 12   | 1 411, 1 001  |
| 334  | Hickory  | 14.25  | Poor  |
| 336  | Oak  | 18   | Fair<br>  |
| 337  | Oak  | 15.5   | Fair  |
| 338<br>340   | Oak<br>Oak   | 16.5   | Fair, Poor<br>Fair, Poor  |
| 342  | Oak  | 15.25<br>15  | Fair, Poor  |
| 343  | Maple  | 16.5   | Poor  |
| 346  | Maple  | 10   | Poor  |
| 347  | Maple  | 14.5   | Fair, Poor  |
| 348  | Maple  | 11.25  | Fair, Poor  |
| 350  | Dead   | 14   | Dead  |
| 352  | Oak  | 11.75  | Critical  |
| 354  | Maple  | 17.5   | Critical  |
| 354  | Maple  |  | I Diseased  |
| 355  | Black cherry   | 18.5   | Diseased,<br>Critical   |
|  | Black cherry  Maple  | 18.5<br>16   |   |
| 355<br>356<br>357  | Black cherry Maple Maple   | 16<br>10.75  | Critical Fair, Poor Poor  |
| 355<br>356<br>357<br>358   | Maple Maple Maple Maple  | 16<br>10.75<br>10.75   | Critical Fair, Poor Poor Poor   |
| 355<br>356<br>357<br>358<br>360  | Maple Maple Maple Maple Black cherry   | 16<br>10.75<br>10.75<br>12   | Critical Fair, Poor Poor Poor Critical  |
| 355<br>356<br>357<br>358<br>360<br>362   | Maple Maple Maple Maple Black cherry Maple   | 16<br>10.75<br>10.75<br>12<br>11   | Critical Fair, Poor Poor Poor Critical Fair, Poor   |
| 355<br>356<br>357<br>358<br>360<br>362<br>364  | Maple Maple Maple Maple Black cherry Maple Maple Maple   | 16<br>10.75<br>10.75<br>12<br>11<br>12.5   | Critical Fair, Poor Poor Poor Critical Fair, Poor Poor  |
| 355<br>356<br>357<br>358<br>360<br>362<br>364<br>365   | Maple Maple Maple Maple Black cherry Maple Maple Maple Maple   | 16<br>10.75<br>10.75<br>12<br>11<br>12.5<br>12.5                                 | Critical Fair, Poor Poor Critical Fair, Poor Poor Poor  |
| 355<br>356<br>357<br>358<br>360<br>362<br>364<br>365<br>366  | Maple Maple Maple Maple Black cherry Maple Maple Maple Maple Maple Maple Maple   | 16<br>10.75<br>10.75<br>12<br>11<br>12.5<br>12.5<br>11.25                        | Critical Fair, Poor Poor Critical Fair, Poor Poor Poor Poor   |
| 355<br>356<br>357<br>358<br>360<br>362<br>364<br>365   | Maple Maple Maple Maple Black cherry Maple Maple Maple Maple   | 16<br>10.75<br>10.75<br>12<br>11<br>12.5<br>12.5                                 | Critical Fair, Poor Poor Critical Fair, Poor Poor Poor  |
| 355<br>356<br>357<br>358<br>360<br>362<br>364<br>365<br>366<br>367   | Black cherry  Maple  Maple  Maple  Black cherry  Maple  Maple  Maple  Maple  Maple  Oak  | 16<br>10.75<br>10.75<br>12<br>11<br>12.5<br>12.5<br>11.25<br>13.5                | Critical Fair, Poor Poor Critical Fair, Poor Poor Poor Poor Fair  |
| 355<br>356<br>357<br>358<br>360<br>362<br>364<br>365<br>366<br>367<br>368                                    | Black cherry Maple Maple Maple Black cherry Maple Maple Maple Maple Maple Oak Maple  | 16<br>10.75<br>10.75<br>12<br>11<br>12.5<br>12.5<br>11.25<br>13.5<br>18.5        | Critical Fair, Poor Poor Critical Fair, Poor Poor Poor Poor Poor Poor Poor Fair Poor  |
| 355<br>356<br>357<br>358<br>360<br>362<br>364<br>365<br>366<br>367<br>368<br>369                             | Maple Maple Maple Maple Black cherry Maple   | 16<br>10.75<br>10.75<br>12<br>11<br>12.5<br>12.5<br>12.5<br>13.5<br>18.5<br>15.5 | Critical Fair, Poor Poor Critical Fair, Poor Poor Poor Poor Poor Fair Poor Fair, Poor   |
| 355<br>356<br>357<br>358<br>360<br>362<br>364<br>365<br>366<br>367<br>368<br>369<br>370                      | Black cherry  Maple  Maple  Maple  Black cherry  Maple  | 16 10.75 10.75 12 11 12.5 12.5 12.5 13.5 13.5 13.5 13.5                          | Critical Fair, Poor Poor Critical Fair, Poor Poor Poor Poor Poor Fair Poor Fair, Poor Critical  |
| 355<br>356<br>357<br>358<br>360<br>362<br>364<br>365<br>366<br>367<br>368<br>369<br>370<br>371               | Black cherry  Maple  Maple  Maple  Black cherry  Maple  Maple  Maple  Maple  Maple  Maple  Oak  Maple  Maple | 16 10.75 10.75 12 11 12.5 12.5 13.5 18.5 15.5 13.5                               | Critical Fair, Poor Poor Poor Critical Fair, Poor Poor Poor Poor Fair Poor Fair, Poor Critical Fair, Poor Fair  |
| 355<br>356<br>357<br>358<br>360<br>362<br>364<br>365<br>366<br>367<br>368<br>369<br>370<br>371<br>372        | Black cherry  Maple  Maple  Maple  Black cherry  Maple  Maple  Maple  Maple  Oak  Maple  Maple  Maple  Maple  Maple  Maple  Black Cherry   | 16 10.75 10.75 12 11 12.5 12.5 11.25 13.5 18.5 15.5 13.5 15 13.5                 | Critical Fair, Poor Poor Poor Critical Fair, Poor Poor Poor Poor Fair Poor Fair, Poor Critical Fair, Poor Fair, Poor Fair, Poor                       |
| 355<br>356<br>357<br>358<br>360<br>362<br>364<br>365<br>366<br>367<br>368<br>369<br>370<br>371<br>372<br>373 | Black cherry  Maple  Maple  Maple  Black cherry  Maple  Maple  Maple  Maple  Maple  Maple  Oak  Maple  Maple | 16 10.75 10.75 12 11 12.5 12.5 12.5 13.5 13.5 15 13.5 15 13.5 11.75              | Critical Fair, Poor Poor Poor Critical Fair, Poor Poor Poor Poor Fair Poor Fair, Poor Critical Fair, Poor Critical Fair, Poor Critical Fair Foor Poor |

| 378  | Maple  | 11.75   | Fair, Poor  |
|--|--|---|---|
| 379  | Maple  | 14.5  | Poor  |
| 380  | Maple  | 11.25   | Poor  |
| 381  | Black Cherry   | 16  | Critical  |
| 382  | Black Cherry   | 11.75   | Dead  |
| 383  | Maple  | 10.75   | Fair  |
| 385  | Maple  | 13.75   | Fair, Poor  |
| 387  | Maple  | 17.25   | Poor  |
| 390  | Maple  | 18.75   | Poor, Critical  |
| 392  | Elm  | 18.5  | Critical  |
| 393  | Maple Black cherry   | 14.75   | Poor  |
| 396<br>397   | Maple  | 10.25<br>19.5   | Dead<br>Poor  |
| 400  | Elm  | 14.75   | Fair, Poor  |
| 403  | Elm  | 18.75   | Poor  |
| 404  | Elm  | 10.5  | Fair, Poor  |
| 405  | Elm  | 18.75   | Fair, Poor  |
| 406  | Elm  | 14.75   | Fair, Poor  |
| 407  | Maple  | 16.75   | Fair  |
| 408  | Elm  | 18.75   | Fair, Poor  |
| 409  | Elm  | 19.25   | Poor  |
| 410  | Elm  | 14.75   | Fair, Poor  |
| 411  | Elm  | 19.25   | Poor  |
| 413  | Oak  | 13.75   | Poor  |
| 415<br>417   | Elm<br>Elm   | 14.75<br>13.75  | Poor<br>Fair, Poor  |
| 417  | Elm  | 13.75   | Poor  |
| 421  | Maple  | 12.5  | Poor  |
| 423  | Maple  | 12.5  | Poor  |
| 424  | Elm  | 11.75   | Fair, Poor  |
| 425  | Maple  | 15  | Critical  |
| 426  | Black Cherry   | 14.25   | Dead  |
| 427  | Maple  | 11  | Critical  |
| 428  | Maple  | 12.5  | Poor  |
| 430  | Oak  | 15.5  | Fair, Poor  |
| 432  | Maple<br>Maple   | 16  | Poor  |
| 435<br>436   | Maple  | 17.75<br>11.75  | Poor<br>Poor, Critical  |
| 437  | Maple  | 16.25   | Poor, Critical  |
| 4.1/   |  |   |   |
|  | Black Cherry   |   | Critical  |
| 437<br>438<br>440  | ·  | 12<br>13.5  | Critical<br>Fair, Poor  |
| 438  | Black Cherry   | 12  |   |
| 438<br>440   | Black Cherry Oak   | 12<br>13.5  | Fair, Poor  |
| 438<br>440<br>441  | Black Cherry Oak Elm   | 12<br>13.5<br>16.5  | Fair, Poor<br>Critical  |
| 438<br>440<br>441<br>442   | Oak Elm Maple  | 12<br>13.5<br>16.5<br>15.5  | Fair, Poor Critical Poor  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445  | Oak Elm Maple Maple Elm Elm  | 12<br>13.5<br>16.5<br>15.5<br>11.75<br>11.25<br>12.5  | Fair, Poor Critical Poor Poor Poor  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446   | Oak Elm Maple Maple Elm Elm  | 12<br>13.5<br>16.5<br>15.5<br>11.75<br>11.25<br>12.5<br>10.5  | Fair, Poor Critical Poor Poor Poor Poor Poor  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447  | Black Cherry Oak Elm Maple Maple Elm Elm Elm                                       | 12<br>13.5<br>16.5<br>15.5<br>11.75<br>11.25<br>12.5<br>10.5<br>11.75   | Fair, Poor Critical Poor Poor Poor Poor Poor Poor   |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448   | Black Cherry Oak Elm Maple Maple Elm Elm Elm Elm                                   | 12<br>13.5<br>16.5<br>15.5<br>11.75<br>11.25<br>12.5<br>10.5<br>11.75<br>16.25  | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Poo  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447  | Black Cherry Oak Elm Maple Maple Elm Elm Elm                                       | 12<br>13.5<br>16.5<br>15.5<br>11.75<br>11.25<br>12.5<br>10.5<br>11.75   | Fair, Poor Critical Poor Poor Poor Poor Poor Poor   |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449  | Black Cherry Oak Elm Maple Maple Elm Elm Elm Elm Elm Elm                           | 12<br>13.5<br>16.5<br>15.5<br>11.75<br>11.25<br>12.5<br>10.5<br>11.75<br>16.25<br>17.75   | Fair, Poor Critical Poor Poor Poor Poor Poor Critical   |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450   | Black Cherry Oak Elm Maple Maple Elm Elm Elm Elm Elm Elm Elm                       | 12<br>13.5<br>16.5<br>15.5<br>11.75<br>11.25<br>12.5<br>10.5<br>11.75<br>16.25<br>17.75   | Fair, Poor  Critical  Poor  Poor  Poor  Poor  Poor  Critical  Fair, Poor  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451  | Black Cherry Oak Elm Maple Maple Elm Elm Elm Elm Elm Elm Elm                       | 12<br>13.5<br>16.5<br>15.5<br>11.75<br>11.25<br>12.5<br>10.5<br>11.75<br>16.25<br>17.75<br>11.5<br>12   | Fair, Poor Critical Poor Poor Poor Poor Poor Critical Fair, Poor Poor   |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452   | Black Cherry Oak Elm Maple Maple Elm           | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75   | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Poo  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455  | Black Cherry Oak Elm Maple Maple Elm           | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75 14.75 15.25   | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Poo  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456   | Black Cherry Oak Elm Maple Maple Elm           | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75 14.75 14.75 13.25   | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Poo  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458  | Black Cherry  Oak  Elm  Maple  Maple  Elm  Elm  Elm  Elm  Elm  Elm  Elm  E         | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75 14.75 15.25 13.25 10  | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Critical Fair, Poor Poor Poor Foor Critical Fair, Poor Poor Poor Critical Fair, Poor Poor Poor Poor Poor Poor Poor Poor   |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458<br>459   | Black Cherry  Oak  Elm  Maple  Maple  Elm  Elm  Elm  Elm  Elm  Elm  Elm  E         | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75 14.75 15.25 13.25 10 10.5   | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Critical Fair, Poor Poor Poor Critical Fair, Poor Poor Poor Fair, Poor Poor Poor Critical Fair, Poor Poor Poor Poor Poor Poor Poor Poor   |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458<br>459<br>460  | Black Cherry  Oak  Elm  Maple  Maple  Elm  Elm  Elm  Elm  Elm  Elm  Elm  E         | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75 14.75 15.25 13.25 10 10.5   | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Critical Fair, Poor Poor Poor Critical Fair, Poor Poor Poor Poor Poor Poor Poor Poor  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458<br>459<br>460<br>461   | Black Cherry Oak Elm Maple Maple Elm           | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 14.75 14.75 14.75 15.25 10 10.5 10.5 10.5   | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Critical Fair, Poor Poor Poor Critical Fair, Poor Poor Poor Critical Fair, Poor Poor Poor Poor Poor Poor, Critical Poor, Critical Poor, Critical Poor, Critical Poor, Critical  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458<br>459<br>460<br>461   | Black Cherry  Oak  Elm  Maple  Maple  Elm  Elm  Elm  Elm  Elm  Elm  Elm  E         | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75 14.75 14.75 15.25 13.25 10 10.5 10.5 16 14.5  | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Critical Fair, Poor Poor Poor Poor Fair, Poor Poor Poor, Critical Poor, Critical Poor, Critical Poor, Critical Poor, Critical Cor, Critical Poor, Critical Cor, Critical |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458<br>459<br>460<br>461<br>462<br>463   | Black Cherry  Oak  Elm  Maple  Maple  Elm  Elm  Elm  Elm  Elm  Elm  Elm  E         | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75 14.75 14.75 15.25 13.25 10 10.5 10.5 11.5 11.5  | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Poo  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458<br>459<br>460<br>461<br>462<br>463<br>464  | Black Cherry  Oak  Elm  Maple  Maple  Elm  Elm  Elm  Elm  Elm  Elm  Elm  E         | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75 14.75 15.25 13.25 10 10.5 10.5 10.5 16 14.5 11.75 12  | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Poo  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458<br>459<br>460<br>461<br>462<br>463   | Black Cherry  Oak  Elm  Maple  Maple  Elm  Elm  Elm  Elm  Elm  Elm  Elm  E         | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75 14.75 14.75 15.25 13.25 10 10.5 10.5 16 14.5 11.75 12 12.75   | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Poo  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458<br>459<br>460<br>461<br>462<br>463<br>464<br>465   | Black Cherry  Oak  Elm  Maple  Maple  Elm  Elm  Elm  Elm  Elm  Elm  Elm  E         | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75 14.75 15.25 13.25 10 10.5 10.5 10.5 16 14.5 11.75 12  | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Poo  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458<br>459<br>460<br>461<br>462<br>463<br>464<br>465<br>466  | Black Cherry  Oak  Elm  Maple  Maple  Elm  Elm  Elm  Elm  Elm  Elm  Elm  E         | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75 14.75 14.75 15.25 13.25 10 10.5 10.5 16 14.5 11.75 12 12.75 12.75   | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Critical Fair, Poor Poor Poor Fair, Poor Poor Critical Poor, Critical Poor, Critical Poor, Critical Critical Piseased, Critical Critical Fair, Poor  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458<br>459<br>460<br>461<br>462<br>463<br>464<br>465<br>466<br>467   | Black Cherry  Oak  Elm  Maple  Maple  Elm  Elm  Elm  Elm  Elm  Elm  Elm  E         | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75 14.75 14.75 15.25 13.25 10 10.5 10.5 16 14.5 11.75 12 12.75 13.75 12.75 13.75   | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Poo  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458<br>459<br>460<br>461<br>462<br>463<br>464<br>465<br>466<br>467   | Black Cherry  Oak  Elm  Maple  Maple  Elm  Elm  Elm  Elm  Elm  Elm  Elm  E         | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75 14.75 14.75 15.25 13.25 10 10.5 10.5 16 14.5 11.75 12 12.75 11.75 12 12.75 12.75 12.75  | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Poo  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458<br>459<br>460<br>461<br>462<br>463<br>464<br>465<br>466<br>467<br>468<br>469<br>470<br>471                             | Black Cherry  Oak  Elm  Maple  Maple  Elm  Elm  Elm  Elm  Elm  Elm  Elm  E         | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75 14.75 14.75 15.25 10 10.5 10.5 10.5 11.75 12 12.75 13.25 10 10.5 10.5 16 14.5 11.75 12 12.75 13.75 13.75 13.75 13.75 14.75 15.25 10.5 10.5  | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Poo  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458<br>459<br>460<br>461<br>462<br>463<br>464<br>465<br>466<br>467<br>468<br>469<br>470<br>471<br>472                      | Black Cherry  Oak  Elm  Maple  Maple  Elm  Elm  Elm  Elm  Elm  Elm  Elm  E         | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75 14.75 14.75 15.25 13.25 10 10.5 10.5 16 14.5 11.75 12 12.75 11.75 12 12.75 11.75 12 12.75 11.5 10.5 10.5 10.5   | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Poo  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458<br>459<br>460<br>461<br>462<br>463<br>464<br>465<br>466<br>467<br>468<br>469<br>470<br>471<br>472<br>474               | Black Cherry  Oak  Elm  Maple  Maple  Elm  Elm  Elm  Elm  Elm  Elm  Elm  E         | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75 14.75 14.75 15.25 13.25 10 10.5 10.5 16 14.5 11.75 12 12.75 12.75 17.75 12 11.5 10.5 10.5 10.5 10.5 10.5 10.5 10.5  | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Poo  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458<br>459<br>460<br>461<br>462<br>463<br>464<br>465<br>466<br>467<br>468<br>469<br>470<br>471<br>472<br>474               | Black Cherry  Oak  Elm  Maple  Maple  Elm  Elm  Elm  Elm  Elm  Elm  Elm  E         | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75 14.75 14.75 15.25 13.25 10 10.5 10.5 10.5 11.75 12 12.75 11.75 12 12.75 11.75 12 12.75 13.75 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10.   | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Poo  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458<br>459<br>460<br>461<br>462<br>463<br>464<br>465<br>466<br>467<br>468<br>469<br>470<br>471<br>472<br>474<br>475<br>476 | Black Cherry  Oak  Elm  Maple  Black Cherry  Elm  Elm  Elm  Elm  Elm  Elm  Elm  El | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 14.75 14.75 14.75 15.25 13.25 10 10.5 10.5 16 14.5 11.75 12 12.75 11.75 12 12.75 11.75 12 12.75 13.75 16.25 10.5 10.5 16.25  | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Poo  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458<br>459<br>460<br>461<br>462<br>463<br>464<br>465<br>466<br>467<br>468<br>469<br>470<br>471<br>472<br>474               | Black Cherry  Oak  Elm  Maple  Maple  Elm  Elm  Elm  Elm  Elm  Elm  Elm  E         | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 12 14.75 14.75 14.75 15.25 13.25 10 10.5 10.5 10.5 16 14.5 11.75 12 12.75 11.75 12 11.75 12 11.75 12 11.75 11.5 12 11.75 11.75 12 11.75 11.5 12 11.75 11.5 12 11.75 11.5 11.75 12 11.75 12 11.75 11.5 11.75 12 11.5 11.75 11.5 11.75 11.5 11.75 11.5 11. | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Poo  |
| 438<br>440<br>441<br>442<br>443<br>444<br>445<br>446<br>447<br>448<br>449<br>450<br>451<br>452<br>453<br>454<br>455<br>456<br>458<br>459<br>460<br>461<br>462<br>463<br>464<br>465<br>466<br>467<br>468<br>469<br>470<br>471<br>472<br>474<br>475<br>476 | Black Cherry  Oak  Elm  Maple  Black Cherry  Elm  Elm  Elm  Elm  Elm  Elm  Elm  El | 12 13.5 16.5 15.5 11.75 11.25 12.5 10.5 11.75 16.25 17.75 11.5 14.75 14.75 14.75 15.25 13.25 10 10.5 10.5 16 14.5 11.75 12 12.75 11.75 12 12.75 11.75 12 12.75 13.75 16.25 10.5 10.5 16.25  | Fair, Poor Critical Poor Poor Poor Poor Poor Poor Poor Poo  |

481 Maple 17 Poor

| 482         Maple         17.25         Poo           484         Maple         15.5         Fair, P           487         Maple         12.5         Poo           488         Maple         15         Poo           489         Maple         10.5         Fair, P           491         Maple         10         Poo           492         Oak         11.5         Fair, P           493         Maple         11.25         Fair           494         Maple         12         Poo           496         Maple         17         Poo           497         Maple         15.5         Poo           498         Maple         18.5         Poo           500         Maple         13         Poo           501         Maple         10         Poor, C           503         Maple         10         Fair, P           504         Oak         11.75         Poo           505         Oak         17         Fair           506         Oak         12.5         Fair           507         Maple         15.75         Poo           508 <th>400</th> <th>Maple</th> <th>47.05</th> <th>Б</th>  | 400 | Maple        | 47.05 | Б             |
|--|-----|--------------|-------|---------------|
| 487         Maple         12.5         Poo           488         Maple         15         Poo           489         Maple         10.5         Fair, P           491         Maple         10.5         Fair, P           491         Maple         10.5         Fair, P           492         Oak         11.5         Fair, P           493         Maple         11.25         Fair           494         Maple         12         Poo           496         Maple         15.5         Poo           497         Maple         15.5         Poo           498         Maple         18.5         Poo           500         Maple         13         Poo           501         Maple         10         Poor, C           502         Maple         10         Poor, C           503         Maple         10         Poor, C           503         Maple         10         Poor, C           503         Maple         10         Poor, C           504         Oak         11.75         Poo           505         Oak         17         Fair   |     |              |       |               |
| 488         Maple         15         Poo           489         Maple         10.5         Fair, P           491         Maple         10         Poor           492         Oak         11.5         Fair, P           493         Maple         11.25         Fair           494         Maple         12         Poo           496         Maple         17         Poo           497         Maple         15.5         Poo           498         Maple         15.5         Poo           500         Maple         13         Poo           501         Maple         11.75         Poo           502         Maple         10         Poor, Co           503         Maple         10         Poor, Co           503         Maple         10         Poor, Co           503         Maple         10         Poor, Co           504         Oak         11.75         Pair           505         Oak         17         Fair           506         Oak         12.5         Fair           507         Maple         15.75         Poo  |     |              |       |               |
| 489         Maple         10.5         Fair, P           491         Maple         10         Poo           492         Oak         11.5         Fair, P           493         Maple         11.25         Faii           494         Maple         12         Poo           496         Maple         15.5         Poo           497         Maple         15.5         Poo           498         Maple         18.5         Poo           500         Maple         13         Poo           501         Maple         11.75         Poo           502         Maple         10         Poor, C           503         Maple         10         Poor, C           504         Oak         11.75         Fair, P           505         Oak         17         Fair           506         Oak         12.5         Fair           507         Maple         15.75         Poo           508         Oak         14.5         Good,           510         Maple         15.75         Poo           511         Maple         12.75         Poo  |     |              |       |               |
| 491         Maple         10         Poo           492         Oak         11.5         Fair, P           493         Maple         11.25         Faii           494         Maple         12         Poo           496         Maple         17         Poo           497         Maple         15.5         Poo           498         Maple         18.5         Poo           500         Maple         13         Poo           501         Maple         11.75         Poo           502         Maple         10         Poor, C           503         Maple         10         Poor, C           503         Maple         10         Poor, C           504         Oak         11.75         Fair, P           505         Oak         17         Fair           506         Oak         12.5         Fair           507         Maple         15.75         Poo           508         Oak         14.5         Good,           510         Maple         10         Poo           511         Hickory         12         Fair           512 <td></td> <td></td> <td></td> <td></td>   |     |              |       |               |
| 492         Oak         11.5         Fair, Pair, Pai |     |              |       |               |
| 493         Maple         11.25         Fair           494         Maple         12         Poo           496         Maple         17         Poo           497         Maple         15.5         Poo           498         Maple         18.5         Poo           500         Maple         13         Poo           501         Maple         10         Poor, C           502         Maple         10         Poor, C           503         Maple         10         Poor, C           503         Maple         10         Poor, C           504         Oak         11.75         Fair, P           505         Oak         17         Fair           506         Oak         12.5         Fair           507         Maple         10         Poo           509         Oak         14.5         Good,           510         Maple         10         Poo           510         Maple         10         Poo           510         Maple         12.75         Poo           510         Maple         12.75         Poo           511  |     |              |       |               |
| 494         Maple         12         Poo           497         Maple         15.5         Poo           498         Maple         18.5         Poo           500         Maple         13         Poo           501         Maple         10         Poor, Cl           502         Maple         10         Poor, Cl           502         Maple         10         Fair, P           502         Maple         10         Fair, P           503         Maple         10         Fair, P           504         Oak         11.75         Fair, P           505         Oak         17         Fair, P           506         Oak         12.5         Fair           507         Maple         15.75         Poo           509         Oak         14.5         Good,           510         Maple         10         Poo           511         Hickory         12         Fair           512         Linden         15.5         Fair           512         Linden         15.5         Poo           513         Oak         14.25         Poo           <   |     |              |       |               |
| 496         Maple         17         Poo           497         Maple         15.5         Poo           498         Maple         18.5         Poo           500         Maple         13         Poo           501         Maple         10         Poor, C           502         Maple         10         Poor, C           503         Maple         10         Poor, C           503         Maple         10         Poor, C           504         Oak         11.75         Fair, P           505         Oak         12.5         Fair, P           506         Oak         12.5         Fair, P           507         Maple         10         Poo           509         Oak         14.5         Good,           510         Maple         10         Poo           510         Maple         10         Poo           510         Maple         10         Poo           511         Hickory         12         Fair           512         Linden         15.5         Fair           513         Oak         14.25         Poo           514<   |     |              |       |               |
| 497         Maple         15.5         Poo           498         Maple         18.5         Poo           500         Maple         13         Poo           501         Maple         10         Poor, Co           502         Maple         10         Poor, Co           503         Maple         10         Fair, P           504         Oak         11.75         Fair, P           505         Oak         17         Fair           506         Oak         12.5         Fair           507         Maple         15.75         Poo           509         Oak         14.5         Good,           510         Maple         10         Poo           510         Maple         10         Poo           510         Maple         10         Poo           510         Maple         15.5         Fair           511         Hickory         12         Fair           512         Linden         15.5         Fair           512         Linden         15.5         Fair           513         Oak         14.25         Poo           515<   |     |              |       |               |
| 498         Maple         13         Poo           500         Maple         13         Poo           501         Maple         11.75         Poo           502         Maple         10         Poor, C           503         Maple         10         Fair, P           504         Oak         11.75         Fair, P           505         Oak         17         Fair           506         Oak         12.5         Fair           507         Maple         15.75         Poo           509         Oak         14.5         Good,           510         Maple         10         Poo           510         Maple         10         Poo           511         Hickory         12         Fair           512         Linden         15.5         Fair           513         Oak         14.25         Poo           514         Maple         12.75         Poo           515         Ash         18         Fair           516         Black Cherry         13.5         Fair, P           517         Black Cherry         14.5         Critic   |     |              |       |               |
| 500         Maple         13         Poo           501         Maple         11.75         Poo           502         Maple         10         Poor, C           503         Maple         10         Fair, P           504         Oak         11.75         Fair, P           505         Oak         17         Fair           506         Oak         12.5         Fair           507         Maple         15.75         Poo           509         Oak         14.5         Good,           510         Maple         10         Poo           511         Hickory         12         Fair           512         Linden         15.5         Fair           512         Linden         15.5         Poo           513         Oak         14.25         Poo           515   |     |              |       |               |
| 501         Maple         11.75         Poo           502         Maple         10         Poor, C           503         Maple         10         Fair, P           504         Oak         11.75         Fair, P           505         Oak         17         Fair           506         Oak         12.5         Fair           507         Maple         15.75         Poo           509         Oak         14.5         Good,           510         Maple         10         Poo           510         Maple         10         Poo           511         Hickory         12         Fair           512         Linden         15.5         Fair           513         Oak         14.25         Poo           514         Maple         12.75         Poo           515         Ash         18         Fair           516         Black Cherry         14.5         Critic           517         Black Cherry         14.5         Critic           518         Maple         11.75         Fair           520         hickory         10.75         Fair  |     |              |       |               |
| 502         Maple         10         Poor, Co.           503         Maple         10         Fair, P.           504         Oak         11.75         Fair, P.           505         Oak         17         Fair           506         Oak         12.5         Fair           507         Maple         15.75         Poo           509         Oak         14.5         Good,           510         Maple         10         Poo           510         Maple         10         Poo           511         Hickory         12         Fair           512         Linden         15.5         Fair           512         Linden         15.5         Fair           512         Linden         15.5         Fair           513         Oak         14.25         Poo           514         Maple         12.75         Poo           515         Ash         18         Fair           516         Black Cherry         13.5         Fair, P           517         Black Cherry         14.5         Critic           518         Maple         11.75         Fair  |     |              |       |               |
| 503         Maple         10         Fair, P           504         Oak         11.75         Fair, P           505         Oak         17         Fair           506         Oak         12.5         Fair           507         Maple         15.75         Poo           509         Oak         14.5         Good,           510         Maple         10         Poo           510         Maple         10         Poo           510         Maple         10         Poo           511         Hickory         12         Fair           512         Linden         15.5         Fair           513         Oak         14.25         Poo           514         Maple         12.75         Poo           515         Ash         18         Fair           516         Black Cherry         13.5         Fair, P           517         Black Cherry         14.5         Critic           518         Maple         11.75         Poo           518         Maple         11.75         Fair           520         hickory         10.75         Critic   |     |              |       |               |
| 504         Oak         11.75         Fair, P           505         Oak         17         Fair, P           506         Oak         12.5         Fair           507         Maple         15.75         Poo           509         Oak         14.5         Good,           510         Maple         10         Poo           510         Maple         10         Poo           511         Hickory         12         Fair           511         Hickory         12         Fair           512         Linden         15.5         Fair           512         Linden         15.5         Poo           513         Oak         14.25         Poo           514         Maple         12.75         Poo           515         Ash         18         Fair           516         Black Cherry         13.5         Fair, P           517         Black Cherry         14.5         Critic           518         Maple         11.75         Poi           520         Maple         13         Fair, P           521         Maple         11.75         Fair  |     | Maple        |       |               |
| 505         Oak         17         Fair           506         Oak         12.5         Fair           507         Maple         15.75         Poo           509         Oak         14.5         Good,           510         Maple         10         Poo           510         Maple         10         Poo           510         Maple         10         Poo           510         Maple         10         Poo           511         Hickory         12         Fair           512         Linden         15.5         Fair           512         Linden         15.5         Poo           514         Maple         12.75         Poo           514         Maple         12.75         Poo           515         Ash         18         Fair           516         Black Cherry         13.5         Fair, P           517         Black Cherry         14.5         Critic           518         Maple         11.75         Pair           520         Maple         13         Fair, P           521         Maple         11.75         Fair  |     |              |       |               |
| 506         Oak         12.5         Fair           507         Maple         15.75         Poo           509         Oak         14.5         Good,           510         Maple         10         Poo           510         Maple         10         Poo           511         Hickory         12         Fair           511         Hickory         12         Fair           512         Linden         15.5         Fair           513         Oak         14.25         Poo           514         Maple         12.75         Poo           515         Ash         18         Fair           516         Black Cherry         13.5         Fair, P           517         Black Cherry         14.5         Critic           518         Maple         11.75         Poo           518         Maple         11.75         Poo           520         Shagbark         Fair, P           521         Maple         13         Fair, P           522         Maple         11.75         Fair           523         Black Cherry         13         Fair, P  |     |              |       |               |
| 507         Maple         15.75         Poo           509         Oak         14.5         Good,           510         Maple         10         Poo           510         Maple         10         Poo           510         Shagbark         12         Fair           511         Hickory         12         Fair           512         Linden         15.5         Fair           512         Linden         15.5         Fair           513         Oak         14.25         Poo           514         Maple         12.75         Poo           515         Ash         18         Fair           516         Black Cherry         13.5         Fair, P           517         Black Cherry         14.5         Critic           518         Maple         11.75         Poo           518         Maple         11.75         Poo           520         Maple         13         Fair, P           521         Maple         13         Fair, P           522         Maple         11.75         Fair           524         Maple         11.75         Fair <td></td> <td></td> <td></td> <td></td>   |     |              |       |               |
| 509         Oak         14.5         Good,           510         Maple         10         Poo           Shagbark         511         Hickory         12         Fair           512         Linden         15.5         Fair           513         Oak         14.25         Poo           514         Maple         12.75         Poo           515         Ash         18         Fair           516         Black Cherry         13.5         Fair, P           517         Black cherry         14.5         Critic           518         Maple         11.75         Poo           518         Maple         11.75         Poi           520         hickory         10.75         Fair           520         hickory         10.75         Critic           522         Maple         11.75         Critic           524         Maple         11.75<   |     |              |       |               |
| 510         Maple         10         Poo           Shagbark<br>Hickory         12         Fair           511         Hickory         12         Fair           512         Linden         15.5         Fair           513         Oak         14.25         Poo           514         Maple         12.75         Poo           515         Ash         18         Fair           516         Black Cherry         13.5         Fair, P           517         Black cherry         14.5         Critic           518         Maple         11.75         Poo           Shagbark<br>hickory         10.75         Fair         Fair           520         Maple         13         Fair, P           522         Maple         13         Fair, P           523         Black cherry         16.75         Critic           524         Maple         11.75         Fair           529         Hickory         13         Fair, P           530         Maple         12         Poo           531         Oak         14         Poo           533         Maple         13.5         Fai  |     | Oak          |       |               |
| Shagbark Hickory         12         Fair           512         Linden         15.5         Fair           513         Oak         14.25         Poo           514         Maple         12.75         Poo           515         Ash         18         Fair           516         Black Cherry         13.5         Fair, P           517         Black Cherry         14.5         Critic           518         Maple         11.75         Poo           518         Maple         11.75         Pair           520         Maple         13         Fair, P           521         Maple         11.75         Fair           522         Maple         11.75         Fair           523         Black Cherry         13         Fair, P           524         Maple         12         Poo           531         Oak         14         Poo      <  |     |              |       |               |
| 512         Linden         15.5         Fair           513         Oak         14.25         Poo           514         Maple         12.75         Poo           515         Ash         18         Fair, P           516         Black Cherry         13.5         Fair, P           517         Black cherry         14.5         Critic           518         Maple         11.75         Poo           520         Shagbark         hickory         10.75         Fair           520         Maple         13         Fair, P           522         Maple         13         Fair, P           523         Black cherry         16.75         Critic           524         Maple         11.75         Fair           524         Maple         10         Poo           Shagbark         Hickory         13         Fair, P           520         Maple         12         Poo           524         Maple         10.75         Critic           529         Hickory         13         Fair, P           530         Maple         12         Poo           531         Oak   |     | Shagbark     |       |               |
| 513         Oak         14.25         Poo           514         Maple         12.75         Poo           515         Ash         18         Fair, P           516         Black Cherry         13.5         Fair, P           517         Black cherry         14.5         Critic           518         Maple         11.75         Poo           518         Maple         11.75         Poo           518         Maple         11.75         Poo           518         Maple         11.75         Poo           520         Maple         13         Fair, P           520         Maple         13         Fair, P           521         Maple         11.75         Critic           522         Maple         10         Poo           523         Black cherry         16.75         Critic           524         Maple         10         Poo           524         Maple         10         Poo           524         Maple         12         Poo           530         Maple         13.5         Fair, P           531         Oak         14         Poor  |     |              |       |               |
| 514         Maple         12.75         Poo           515         Ash         18         Fair, P           516         Black Cherry         13.5         Fair, P           517         Black cherry         14.5         Critic           518         Maple         11.75         Poo           518         Maple         11.75         Poo           518         Maple         11.75         Pair           520         Maple         13         Fair, P           520         Maple         13         Fair, P           522         Maple         11.75         Fair           523         Black cherry         16.75         Critic           524         Maple         11.75         Fair           526         Maple         10         Poo           Shagbark         Hickory         13         Fair, P           529         Hickory         13         Fair, P           530         Maple         12         Poo           531         Oak         14         Poo           531         Oak         14         Poor, C           533         Maple         15.5 <td< td=""><td></td><td></td><td></td><td></td></td<>   |     |              |       |               |
| 515         Ash         18         Fair, P           516         Black Cherry         13.5         Fair, P           517         Black cherry         14.5         Critic           518         Maple         11.75         Poo           518         Maple         11.75         Poo           518         Maple         11.75         Poo           520         Maple         13         Fair, P           522         Maple         13         Fair, P           523         Black cherry         16.75         Critic           524         Maple         11.75         Fair           526         Maple         10         Poo           Shagbark         Hickory         13         Fair, P           530         Maple         12         Poo           531         Oak         14         Poo           533         Maple         13.5         Fair, P           534         Oak         15.75         Fair           538         Maple         15.5         Poor, C           539         Maple         14         Fair           540         Maple         13.75 <td< td=""><td></td><td></td><td></td><td></td></td<>   |     |              |       |               |
| 516         Black Cherry         13.5         Fair, P           517         Black cherry         14.5         Critic           518         Maple         11.75         Poo           518         Maple         11.75         Poo           520         Shagbark hickory         10.75         Fair, P           522         Maple         13         Fair, P           523         Black cherry         16.75         Critic           524         Maple         11.75         Fair           524         Maple         10         Poo           Shagbark Hickory         13         Fair, P           526         Maple         10         Poo           Shagbark Hickory         13         Fair, P           529         Maple         12         Poo           530         Maple         12         Poo           531         Oak         14         Poo           533         Maple         13.5         Fair, P           534         Oak         15.75         Fair           538         Maple         15.5         Poor, C           539         Maple         13.75         Fair, P  |     |              |       |               |
| 517         Black cherry         14.5         Critic           518         Maple         11.75         Poo           Shagbark hickory         10.75         Fair           520         Maple         13         Fair, P           522         Maple         13         Fair, P           523         Black cherry         16.75         Critic           524         Maple         11.75         Fair           526         Maple         10         Poo           Shagbark Hickory         13         Fair, P           530         Maple         12         Poo           531         Oak         14         Poo           533         Maple         13.5         Fair, P           534         Oak         15.75         Fair           536         Maple         11.75         Fair           538         Maple         15.5         Poor, C           539         Maple         14         Fair           540         Maple         13         Poo           541         Maple         13.75         Fair, P           542         Maple         17.75         Fair, P  |     |              |       |               |
| 518         Maple         11.75         Pool           Shagbark<br>hickory         10.75         Fair           520         Maple         13         Fair, P           522         Maple         16.75         Critic           523         Black cherry         16.75         Critic           524         Maple         10         Pool           524         Maple         10         Pool           524         Maple         10         Pool           526         Maple         10         Pool           526         Maple         10         Pool           529         Hickory         13         Fair, P           530         Maple         12         Pool           531         Oak         14         Pool           531         Oak         14         Pool           533         Maple         13.5         Fair, P           534         Oak         15.75         Fair           538         Maple         15.5         Poor, C           539         Maple         13.75         Fair, P           541         Maple         13.75         Fair, P      <   |     | <u> </u>     |       |               |
| Shagbark hickory         10.75         Fain           522         Maple         13         Fair, P           523         Black cherry         16.75         Critic           524         Maple         11.75         Fair           526         Maple         10         Poo           Shagbark Hickory         13         Fair, P           530         Maple         12         Poo           531         Oak         14         Poo           533         Maple         13.5         Fair, P           534         Oak         15.75         Fair           536         Maple         11.75         Fair           538         Maple         15.5         Poor, C           539         Maple         14         Fair           540         Maple         13         Poo           541         Maple         13.75         Fair, P           542         Maple         17.75         Fair, P           543         Black Cherry         12.5         Poo           545         Maple         13.25         Poo           546         Oak         14         Fair, P   |     |              |       |               |
| 520         hickory         10.75         Fair           522         Maple         13         Fair, P           523         Black cherry         16.75         Critic           524         Maple         11.75         Fair           526         Maple         10         Poo           Shagbark         Hickory         13         Fair, P           530         Maple         12         Poo           531         Oak         14         Poo           531         Oak         14         Poo           533         Maple         13.5         Fair, P           534         Oak         15.75         Fair           536         Maple         11.75         Fair           538         Maple         15.5         Poor, C           539         Maple         14         Fair           540         Maple         13         Poo           541         Maple         13.75         Fair, P           542         Maple         17.75         Fair, P           543         Black Cherry         12.5         Poo           545         Maple         13.25         Poo  | 518 | ·            | 11.75 | Poo           |
| 523         Black cherry         16.75         Critic           524         Maple         11.75         Fair           526         Maple         10         Poo           Shagbark<br>Hickory         13         Fair, P           530         Maple         12         Poo           531         Oak         14         Poo           533         Maple         13.5         Fair, P           534         Oak         15.75         Fair           536         Maple         11.75         Fair           538         Maple         15.5         Poor, Cr           539         Maple         14         Fair           540         Maple         13         Poo           541         Maple         13.75         Fair, P           542         Maple         17.75         Fair, P           543         Black Cherry         12.5         Poo           545         Maple         13.25         Poo           546         Oak         14         Fair, P           548         Maple         12.5         Poor, C           Shagbark<br>Hickory         10.5         Good, <td>520</td> <td></td> <td>10.75</td> <td>Faiı</td>  | 520 |              | 10.75 | Faiı          |
| 524         Maple         11.75         Fair           526         Maple         10         Poo           Shagbark         Hickory         13         Fair, P           530         Maple         12         Poo           531         Oak         14         Poo           533         Maple         13.5         Fair, P           534         Oak         15.75         Fair           536         Maple         11.75         Fair           538         Maple         15.5         Poor, C           539         Maple         14         Fair           540         Maple         13         Poo           541         Maple         13.75         Fair, P           542         Maple         17.75         Fair, P           543         Black Cherry         12.5         Poo           545         Maple         13.25         Poo           546         Oak         14         Fair, P           548         Maple         12.5         Poor, C           Shagbark         Hickory         10.5         Good,   | 522 | Maple        | 13    | Fair, P       |
| 526         Maple         10         Pool           Shagbark         Hickory         13         Fair, P           530         Maple         12         Pool           531         Oak         14         Pool           533         Maple         13.5         Fair, P           534         Oak         15.75         Fair           536         Maple         11.75         Fair           538         Maple         15.5         Poor, C           539         Maple         14         Fair           540         Maple         13         Pool           541         Maple         13.75         Fair, P           542         Maple         17.75         Fair, P           543         Black Cherry         12.5         Pool           545         Maple         13.25         Pool           546         Oak         14         Fair, P           548         Maple         12.5         Poor, C           Shagbark         Hickory         10.5         Good,  | 523 | Black cherry | 16.75 | Critic        |
| Shagbark Hickory         13         Fair, P           530         Maple         12         Poo           531         Oak         14         Poo           533         Maple         13.5         Fair, P           534         Oak         15.75         Fair           536         Maple         11.75         Fair           538         Maple         15.5         Poor, C           539         Maple         14         Fair           540         Maple         13         Poo           541         Maple         13.75         Fair, P           542         Maple         17.75         Fair, P           543         Black Cherry         12.5         Poo           545         Maple         13.25         Poo           546         Oak         14         Fair, P           548         Maple         12.5         Poor, C           Shagbark         Hickory         10.5         Good,   | 524 | Maple        | 11.75 | Faiı          |
| 529         Hickory         13         Fair, P           530         Maple         12         Poo           531         Oak         14         Poo           533         Maple         13.5         Fair, P           534         Oak         15.75         Fair           536         Maple         11.75         Fair           538         Maple         15.5         Poor, C           539         Maple         14         Fair           540         Maple         13         Poo           541         Maple         13.75         Fair, P           542         Maple         17.75         Fair, P           543         Black Cherry         12.5         Poo           545         Maple         13.25         Poo           546         Oak         14         Fair, P           548         Maple         12.5         Poor, C           Shagbark         Hickory         10.5         Good,  | 526 |              | 10    | Poo           |
| 530         Maple         12         Poo           531         Oak         14         Poo           533         Maple         13.5         Fair, P           534         Oak         15.75         Fair           536         Maple         11.75         Fair           538         Maple         15.5         Poor, C           539         Maple         14         Fair           540         Maple         13         Poo           541         Maple         13.75         Fair, P           542         Maple         17.75         Fair, P           543         Black Cherry         12.5         Poo           545         Maple         13.25         Poo           546         Oak         14         Fair, P           548         Maple         12.5         Poor, C           Shagbark<br>Hickory         10.5         Good,  | 529 |              | 13    | <br>  Fair. P |
| 531         Oak         14         Poo           533         Maple         13.5         Fair, P           534         Oak         15.75         Fair           536         Maple         11.75         Fair           538         Maple         15.5         Poor, C           539         Maple         14         Fair           540         Maple         13         Poo           541         Maple         13.75         Fair, P           542         Maple         17.75         Fair, P           543         Black Cherry         12.5         Poo           545         Maple         13.25         Poo           546         Oak         14         Fair, P           548         Maple         12.5         Poor, C           Shagbark         Hickory         10.5         Good,  |     | ·            |       |               |
| 533         Maple         13.5         Fair, P           534         Oak         15.75         Fair           536         Maple         11.75         Fair           538         Maple         15.5         Poor, C           539         Maple         14         Fair           540         Maple         13         Poo           541         Maple         13.75         Fair, P           542         Maple         17.75         Fair, P           543         Black Cherry         12.5         Poo           545         Maple         13.25         Poo           546         Oak         14         Fair, P           548         Maple         12.5         Poor, C           Shagbark<br>Hickory         10.5         Good,  |     | ·            |       |               |
| 534         Oak         15.75         Fain           536         Maple         11.75         Fain           538         Maple         15.5         Poor, Cr           539         Maple         14         Fain           540         Maple         13         Poor           541         Maple         13.75         Fair, P           542         Maple         17.75         Fair, P           543         Black Cherry         12.5         Poor           545         Maple         13.25         Poor           546         Oak         14         Fair, P           548         Maple         12.5         Poor, C           Shagbark         Hickory         10.5         Good,  |     |              |       |               |
| 536         Maple         11.75         Fair           538         Maple         15.5         Poor, Cr           539         Maple         14         Fair           540         Maple         13         Poo           541         Maple         13.75         Fair, P           542         Maple         17.75         Fair, P           543         Black Cherry         12.5         Poo           545         Maple         13.25         Poo           546         Oak         14         Fair, P           548         Maple         12.5         Poor, C           Shagbark<br>Hickory         10.5         Good,   |     |              |       |               |
| 538         Maple         15.5         Poor, C           539         Maple         14         Fair           540         Maple         13         Poo           541         Maple         13.75         Fair, P           542         Maple         17.75         Fair, P           543         Black Cherry         12.5         Poo           545         Maple         13.25         Poo           546         Oak         14         Fair, P           548         Maple         12.5         Poor, C           Shagbark         Hickory         10.5         Good,  |     |              |       |               |
| 539         Maple         14         Fair           540         Maple         13         Poo           541         Maple         13.75         Fair, P           542         Maple         17.75         Fair, P           543         Black Cherry         12.5         Poo           545         Maple         13.25         Poo           546         Oak         14         Fair, P           548         Maple         12.5         Poor, C           Shagbark         Hickory         10.5         Good,   |     |              |       |               |
| 540         Maple         13         Poo           541         Maple         13.75         Fair, P           542         Maple         17.75         Fair, P           543         Black Cherry         12.5         Poo           545         Maple         13.25         Poo           546         Oak         14         Fair, P           548         Maple         12.5         Poor, C           Shagbark         Hickory         10.5         Good,   |     |              |       |               |
| 541         Maple         13.75         Fair, P           542         Maple         17.75         Fair, P           543         Black Cherry         12.5         Poo           545         Maple         13.25         Poo           546         Oak         14         Fair, P           548         Maple         12.5         Poor, C           Shagbark<br>Hickory         Hickory         10.5         Good,   |     | Maple        |       |               |
| 542         Maple         17.75         Fair, P           543         Black Cherry         12.5         Poo           545         Maple         13.25         Poo           546         Oak         14         Fair, P           548         Maple         12.5         Poor, C           Shagbark         Hickory         10.5         Good,  |     |              |       |               |
| 543         Black Cherry         12.5         Poo           545         Maple         13.25         Poo           546         Oak         14         Fair, P           548         Maple         12.5         Poor, C           Shagbark<br>Hickory         Hickory         10.5         Good,   |     | Maple        |       |               |
| 545         Maple         13.25         Poo           546         Oak         14         Fair, P           548         Maple         12.5         Poor, C           Shagbark         Hickory         10.5         Good,  |     |              |       |               |
| 546         Oak         14         Fair, P           548         Maple         12.5         Poor, C           Shagbark         Hickory         10.5         Good,  |     | Maple        |       |               |
| 548 Maple 12.5 Poor, C<br>Shagbark<br>549 Hickory 10.5 Good,   |     | Oak          |       |               |
| Shagbark<br>549 Hickory 10.5 Good,   | 340 |              |       |               |
|  |     | IVIAPIO      |       |               |
|  | 548 | Shagbark     |       | ١             |



NOT FOR
CONSTRUCTION
THIS DRAWING PROVIDED ONLY FOR
REVIEW AND
APPROVAL

- 31 MAY 23 SUBMISSION TO TOWN
- 28 APR 23 SUBMISSION TO TOWN
- 15 FEB 23 SUBMISSION TO TOWN

MARK: DATE: DESCRIPTION:

- 11 NOV 22 SUBMISSION TO TOWN
- 20 OCT 22 GPI CONCEPT FOR REVIEW
- 16 SEP 22 CONCEPT FOR REVIEW

JW CONGREGATION SUPPORT, INC.

1005 RED MILLS ROAD WALLKILL, NY 12589-3283

NEWBURGH KINGDOM HALL
OF JEHOVAH'S WITNESSES
33 OLD LITTLE BRITAIN RD
NEWBURGH, NY 12550

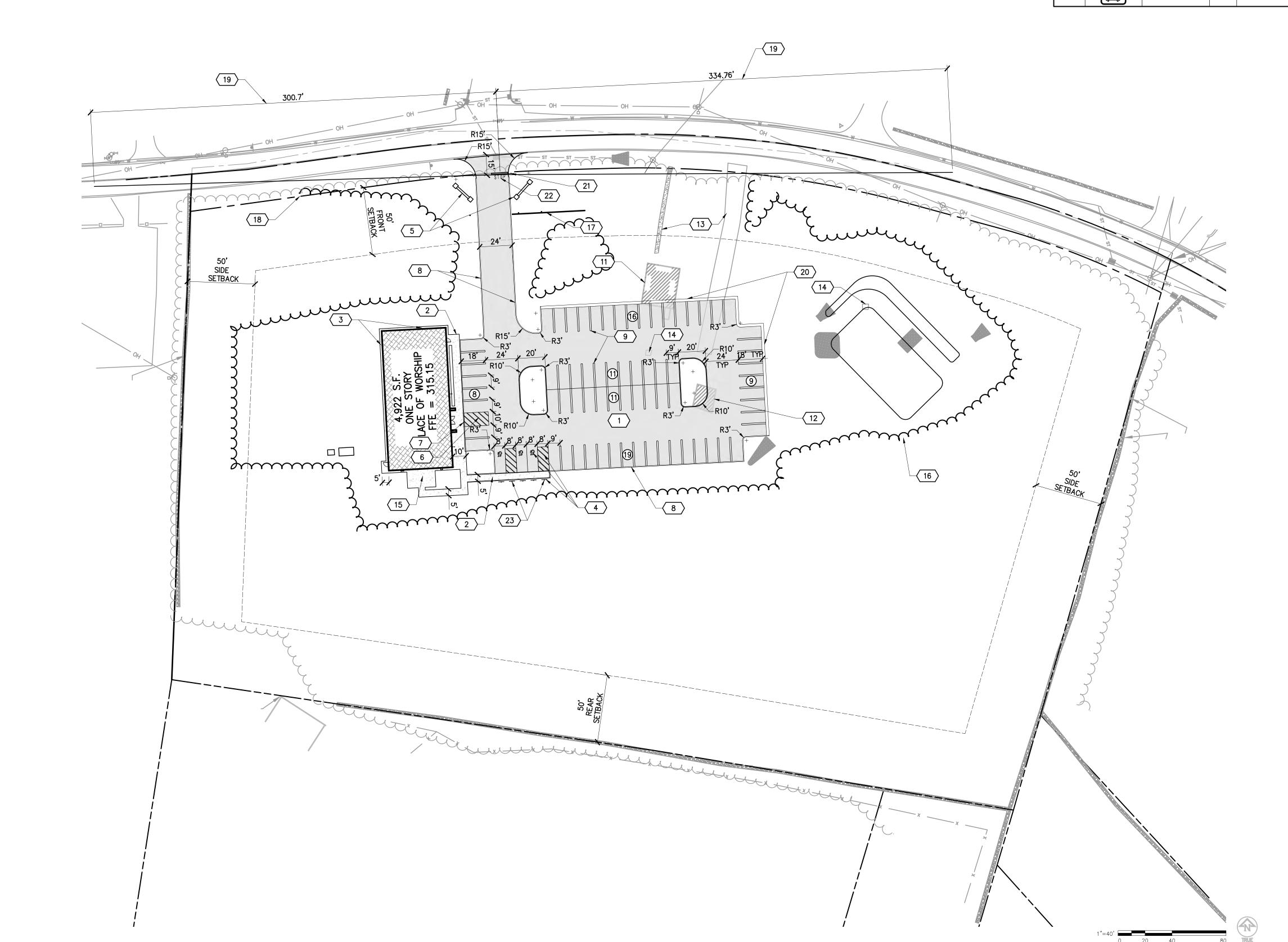
NEWBURGH, NY 12

TREE SURVEY

37147

V-103

|             | SITE SIGN TABLE              |                       |      |  |  |  |
|-------------|------------------------------|-----------------------|------|--|--|--|
|             | _                            | JIL JIGN              | וטאו | <b></b> _  |  |  |
| SIGN<br>NO. | DESC.                        | M.U.T.C.D<br>NO./SIZE | QTY  | COLOR*   |  |  |
| 1           | STOP                         | R1-1<br>30" X 30"     | 1    | LEGEND: RED-RETROFLECTIVE BACKGROUND: WHITE-RETROFLECTIVE  |  |  |
| 2           | RESERVED PARKING             | R7-8<br>12" X 18"     | 3    | LEGEND: GREEN-RETROFLECTIVE BACKGROUND: WHITE-RETROFLECTIVE SYMBOL BACKGROUND: BLUE -RETROFLECTIVE |  |  |
| 3           | VAN<br>ACCESSIBLE            | R7-8a<br>12" X 6"     | 1    | LEGEND: GREEN-RETROFLECTIVE<br>(OR BLACK)<br>BACKGROUND:<br>WHITE-RETROFLECTIVE                    |  |  |
| 4           | NO<br>PARKING<br>ANY<br>TIME | R7-1<br>12" X 18"     | 1    | LEGEND: RED BACKGROUND: WHITE-RETROFLECTIVE  |  |  |



# GENERAL SHEET NOTES

- 1. REFER TO C-001 COVER SHEET FOR GENERAL NOTES REFERENCING SURVEY INFORMATION, DATUMS, GENERAL PROJECT AND CONSTRUCTION INFORMATION.
- 2. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MOST RECENT EDITION AS REVISED) AND AS REQUIRED BY THE TOWN OF NEWBURGH'S HIGHWAY DEPARTMENT. DURING CONSTRUCTION WITHIN THE PUBLIC R.O.W. CONTRACTOR SHALL BE RESPONSIBLE FOR TRAFFIC CONTROL IN THE PROJECT AREA.
- 3. REQUIRED SIGNAGE AND STRIPING OF FIRE ZONES OR ACCESS LANES SHALL BE AS REQUIRED BY FIRE OFFICIAL.
- 4. PAINT ALL PARKING STALLS, STOP BARS, CROSSWALKS AND HANDICAP ACCESSIBLE SPACES, ALLOW PAVING TO AGE 30 DAYS BEFORE APPLYING MARKINGS.
- 5. DIMENSIONS SHOWN ON PLANS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- 6. SOLID WASTE WILL BE PRIVATELY HANDLED. WASTE ACCUMULATED DAILY IS FROM LITTLE TO NONE AND IS DISPOSED OFF-SITE BY THE PATRONS. NO KITCHENS OR DAY CARE SERVICES WILL BE PART OF THE USE OF THE BUILDING. NO DUMPSTER OR MUNICIPAL SERVICE IS NECESSARY.
- 7. DEMOLITION OF THE EXISTING BUILDINGS ON SITE WILL REQUIRE A DEMOLITION PERMIT FROM THE TOWN OF NEWBURGH BUILDING DEPARTMENT.

## PAVEMENT LEGEND



ASPHALT PAVEMENT

CONCRETE PAVEMENT

# SYMBOLS LEGEND

|                       | EXISTING  | PROPOSED |
|-----------------------|-----------|----------|
| PROPERTY BOUNDARY     |           |          |
| BUILDING SETBACK LINE |           |          |
| BUILDING              |           |          |
| EDGE OF PAVEMENT      |           |          |
| CURB                  |           |          |
| FENCE                 | - 0       |          |
| SIGN                  |           | -        |
| WHEEL STOP            |           |          |
| BOLLARD               | <b>(</b>  | •        |
| ACCESSIBLE PARKING    | Si        | ð        |
| LIGHT POLE (1-LIGHT)  | 0-[-      | <b>ф</b> |
| HYDRANT               | <b>\$</b> | ♦        |
| UTILITY POLE          | Ø         | ¤        |
| PARKING SPACE COUNT   |           | #        |
|                       |           |          |

# □ SHEET KEYNOTES

- STANDARD ASPHALT PAVEMENT. SEE DETAIL 3/C-502
- SIDEWALK CONCRETE PAVEMENT. SEE DETAIL 6/C-501
- 18" WIDE CONCRETE EDGE. SEE DETAIL 2/C-502 4. ACCESSIBLE SIGNAGE AND STRIPING PER AHJ STANDARDS. FACE OF SIGN SHALL BE A MINIMUM OF 2' FROM EDGE OF CURB. SEE DETAILS 2, 3, 4, AND 5, SHEET C-501
- 5. STONE ENTRANCE WALLS AND MONUMENT SIGN. SEE DETAIL 12/C-502
- 10'x18' STRIPED PEDESTRIAN ACCESS. SEE DETAIL 3/C-501
- 6" VERTICAL TURNDOWN SIDEWALK PAVEMENT. SEE DETAIL 7/C-501 8. 6" VERTICAL REVEAL CURB, TAPERED TO FLUSH AT EACH END. SEE
- DETAIL 8/C-501 9. 4" WIDE TRAFFIC WHITE STRIPING, TYP. SEE DETAIL 1/C-501 RESERVED
- 11. EXISTING ABANDONED HOUSE TO BE REMOVED
- 12. EXISTING ABANDONED GARAGE TO BE REMOVED 13. EXISTING GRAVEL DRIVE AND SIDEWALK TO BE REMOVED
- 14. EXISTING DUG WELLS TO BE DECOMMISSIONED PER NYSDEC "WATER SUPPLY WELL DECOMMISSIONING RECOMMENDATIONS" AND NYSDOH "INDIVIDUAL WATER SUPPLY WELLS - FACT SHEET #4"
- 15. CONCRETE HVAC PAD. SEE ARCHITECTURAL PLANS.
- 16. PROPOSED TREE LINE
- 17. PROPOSED SLIDE GATE. SEE DETAIL 12/C-501 18. PROPOSED DEDICATION OF 25' RIGHT-OF-WAY
- 19. SIGHT DISTANCE MEASUREMENTS
- 20. 6" VERTICAL ASPHALT WING CURB. SEE DETAIL 9/C-501 21. STOP SIGN, SEE DETAIL 11/C-501
- 22. STOP BAR, SEE DETAIL 10/C-501
- 23. NO PARKING SIGN, SEE DETAIL 11/C-501

**NOT FOR** CONSTRUCTION THIS DRAWING PROVIDED ONLY FOR **REVIEW AND APPROVAL** 

CIVIL ENGINEER

80 Wolf Road, Suite 300

| 31 | MAY | 23 | SUBMISSION | ТО | TOWN |  |
|----|-----|----|------------|----|------|--|
| 28 | APR | 23 | SUBMISSION | ТО | TOWN |  |
| 15 | FEB | 23 | SUBMISSION | ТО | TOWN |  |
| l  |     |    |            |    |      |  |

11 NOV 22 SUBMISSION TO TOWN 20 OCT 22 GPI CONCEPT FOR REVIEW - 16 SEP 22 CONCEPT FOR REVIEW

MARK: DATE: DESCRIPTION:

JW CONGREGATION SUPPORT, INC.

1005 RED MILLS ROAD WALLKILL, NY 12589-3283

NEWBURGH KINGDOM HALL OF JEHOVAH'S WITNESSES

NEWBURGH, NY 12550

SITE PLAN

## EARTHWORK SPECIFICATIONS

| FILL TYPE (1)           | USCS<br>CLASSIFICATION      | ACCEPTABLE LOCATION FOR PLACEMENT  |
|-------------------------|-----------------------------|--|
| STRUCTURAL<br>FILL      | GW, GW-GM, SW,<br>SW-SM (2) | ALL LOCATIONS AND ELEVATIONS.  |
| COMMON FILL             | VARIES (3)                  | COMMON FILL MAY BE USED FOR GENERAL SITE GRADING. COMMON FILL SHOULD NOT BE USED UNDER SETTLEMENT OR FROST—SENSITIVE STRUCTURES. |
| CRUSHED<br>STONE        | GP                          | FOR USE ON WET SUBGRADES AND AS DRAINAGE FILL. SHOULD BE UNIFORM 3/4-INCH ANGULAR CRUSHED STONE.                                 |
| DENSE GRADED<br>CRUSHED | (4)                         | FOR USE ON ROADWAY BASE AND SUBBASE  |

COMPACTED FILL SHOULD CONSIST OF APPROVED MATERIALS THAT ARE FREE OF ORGANIC MATTER AND DEBRIS. FROZEN MATERIALS SHOULD NOT BE USED. FILL SHOULD NOT BE PLACED ON A FROZEN

2. IMPORTED STRUCTURAL FILL SHOULD MEET THE FOLLOWING GRADATION:

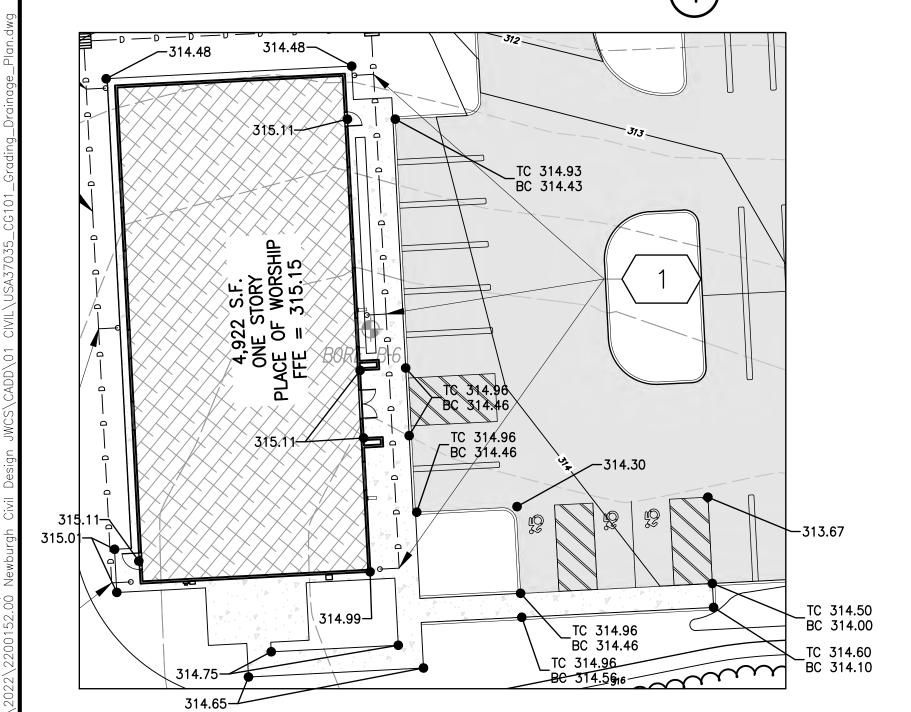
| IEVE SIZE | PERCENT FINER |
|-----------|---------------|
| -INCHES   | 100           |
| 2-INCHES  | 70-100        |
| NO. 4     | 50-85         |
| NO. 10    | 30-55         |
| NO. 60    | 8-24          |
| NO. 200   | 3-10          |

GRADATION:

| SIEVE SIZE   | PERCENT FINER |
|--------------|---------------|
| 2-INCHES     | 100           |
| 1 1/2-INCHES | 70-100        |
| 3/4-INCHES   | 50-85         |
| NO. 4        | 30-55         |
| NO. 50       | 8-24          |
| NO. 200      | 3–10          |

### FRIABLE, NATURAL SOIL CONTAINING NO GRAVEL GREATER THAN LOOSE LIFT THICKNESS AND FREE OF TRASH, SNOW, ICE, ORGANICS ROOTS, AND TREE STUMPS AND NO MORE THAN 25% PASSING THE NO. 200 SIEVE. COMMON BORROW CAN BE USED AS GENERAL SITE BACKFILL PROVIDED IT CAN BE COMPACTED AND STABILIZED FOR THE TF=303.00 — INTENDED PURPOSE. TF=303.10 32 LF 12" INV THRU=299.68 HDPE @ 1.0% ---TF=310.66 INV IN (W)=305.36-FLOW SPLITTER OUT=298.88 TF=303.00 HDPE @ 1.0% INV OUT (E)=302.06 TF=302.00 INV OUT=300.00 — INV IN (W)=299.00INV OUT (NE)=299.00 INV OUT (E)=299.00`HDPE @`2.0%\<del>\\</del> CB 2 TF=311.86 **@** 1.0% HDPE @ 2.5% — INV THRU=306.70 — CB 4 INV\_0UT=298.90 -**€**-€B 3 TF=314.10 FES TF=314.00 TF=311.25 INV THRU=309.53 — INV OUT=298.92 INV THRU=310.95-INV THRU=308.50 -PLUNGE POOL HDPE @ 2.5%— -EXTENDED DETENTION BASIN TOP OF BERM: 299.50 OVERFLOW WEIR: 298.75 BOTTOM/ELEV: 296.00 HDPE @ 2.0% INV OUT=295.00 12 15 LF 12" HDPE @ 2.0% HDPE @ 1.0% ₩53. LF 12"\ HDPE @ 5.7% -OUTLET CONTROL STRUCTURE TF=299.00 \INV OUT=295\30 BIORETENTION 4" PVC UNDERDRAIN manne 314 315 316 317 316 317 TOP OF BERM: 299.50 \_ELEV:\295.00\ OVERFLOW WEIR: 298.50 BOTTOM ELEV: 298.06





GRADING ENLARGEMENT — BUILDING

4. DENSE GRADED CRUSHED STONE SHOULD MEET THE FOLLOWING

| SIEVE SIZE          | PERCENT FINER |
|---------------------|---------------|
| 2-INCHES            | 100           |
| 1 1/2-INCHES 70-100 |               |
| 3/4-INCHES 50-85    |               |
| NO. 4 30-55         |               |
| NO. 50              | 8-24          |
| NO. 200             | 3-10          |

### GENERAL EARTHWORK NOTES

- 1. FOR ADDITIONAL INFORMATION ABOUT SITE-SPECIFIC SOILS AND ENGINEERING RECOMMENDATIONS, PLEASE REFER TO THE GEOTECHNICAL ENGINEERING REPORT PREPARED BY GIFFORD ENGINEERING, DATED 3/4/2020. IN CASE A NOTE ON THESE PLANS CONFLICTS WITH THE GEOTECHNICAL REPORT RECOMMENDATIONS, THE MORE STRINGENT OF THE TWO SHALL APPLY.
- 2. PRIOR TO COMMENCEMENT OF GRADING OR FILL PLACEMENT, ANY MISCELLANEOUS TRASH, DEBRIS, OR OTHER UNSUITABLE MATERIALS SHOULD BE REMOVED FROM THE SITE. CLEARING AND GRUBBING OF ALL TREES (INCLUDING REMOVAL OF ANY ASSOCIATED ROOT SYSTEMS) AND VEGETATION DESIGNATED FOR REMOVAL SHOULD BE PERFORMED.
- 3. TOPSOIL SHOULD BE STRIPPED FROM THE PROPOSED BUILDING AND PAVEMENT AREAS. BASED ON THE GEOTECHNICAL INVESTIGATION, THE SITE CONTAINS BETWEEN 4 AND 8 INCHES OF TOPSOIL. AT THIS TIME, WE ANTICIPATE THAT THE TOPSOIL CAN BE USED IN PROPOSED LANDSCAPED AREAS; THE REUSE OF THE ONSITE TOPSOIL SHOULD BE EVALUATED BY A QUALIFIED LANDSCAPE ARCHITECT WITH REGARDS TO NUTRIENT LEVELS, GRAIN SIZE, PH, ETC. TOPSOIL DEEMED UNSUITABLE FOR REUSE SHOULD BE PROPERLY DISPOSED IN AREAS NOT REQUIRING STRUCTURAL FULL. CONFIRM WITH ENGINEER OF RECORD BEFORE EXPORTING MATERIAL OFFSITE (IF REQUIRED).
- ANY FORMER CONCRETE FOUNDATIONS AND FLOOR SLABS AND ABANDONED UTILITIES THAT ARE ENCOUNTERED BENEATH PROPOSED BUILDINGS SHOULD BE COMPLETELY REMOVED. FORMER CONCRETE FOUNDATIONS AND FLOOR SLABS SHOULD BE CUT TO A MINIMUM OF 3 FEET BELOW PROPOSED SUBGRADE LEVELS IN PROPOSED PAVEMENT AND LANDSCAPE AREAS.
- 5. EXISTING UTILITIES THAT CONFLICT WITH NEW CONSTRUCTION SHOULD BE REMOVED FROM PROPOSED BUILDING FOOTPRINT AREA. EXISTING UTILITIES LOCATED OUTSIDE OF THE PROPOSED BUILDING FOOTPRINT SHOULD BE REMOVED OR ABANDONED IN-PLACE BY COMPLETE FILLING WITH GROUT. EXCAVATIONS MADE TO REMOVE FOUNDATION ELEMENTS OR UTILITIES SHOULD BE BACKFILLED WITH APPROVED COMPACTED FILL AS DESCRIBED IN THE ENGINEERED FILL SECTION OF THE GEOTECHNICAL REPORT.
- 6. ANY EXISTING PAVEMENT AND CONCRETE WALKWAYS THAT ARE NOT PART OF THE FINAL DESIGN LAYOUT SHOULD BE DEMOLISHED IN THEIR
- ALL CLEARING AND STRIPPING ACTIVITIES SHOULD BE PERFORMED IN STRICT ACCORDANCE WITH THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLANS. ALL SITE DEMOLITION AND SITE PREPARATION WORK SHOULD BE PERFORMED IN ACCORDANCE WITH ANY ENVIRONMENTAL REGULATIONS.
- ALL WORK SHOULD BE PERFORMED SO AS TO NOT ADVERSELY IMPACT THE EXISTING AND NEIGHBORING BUILDINGS, OFFSITE STRUCTURES, ROADWAYS, OR UTILITIES.
- CONSULT WITH THE GEOTECHNICAL ENGINEER BEFORE ADJUSTING RECOMMENDATIONS AS MAY BE NEEDED BASED ON ACTUAL CONDITIONS ENCOUNTERED ONSITE THAT MAY DIFFER FROM WHAT WAS ENCOUNTERED DURING THE INVESTIGATION.

### PROOF-ROLLING NOTES

1. ALL BUILDING PAD AND PAVEMENT SUBGRADE SURFACES EXPOSED AFTER THE STRIPPING OF THE VEGETATION AND THE WEAK SURFICIAL SOILS, AS WELL AS ALL AREAS OF THE SITE PLANNED FOR THE PLACEMENT OF GENERAL FILL SOILS, SHOULD BE PROOF-ROLLED WITH AT LEAST 4 PASSES OF EITHER A SMOOTH ROLLER HAVING A MINIMUM STATIC WEIGHT OF 5 TONS OR A FULLY LOADED TANDEM DUMP TRUCK OR EQUIVALENT. ANY SOFT OR WEAK AREAS IDENTIFIED BY THE QUALIFIED SITE INSPECTOR WORKING IN COORDINATION WITH THE CIVIL ENGINEER DURING PROOF-ROLLING SHOULD BE REMOVED AND REPLACED WITH SELECT FILL SOILS OR GENERAL FILL SOILS, DEPENDING UPON THE AREA, THAT ARE INSTALLED IN ACCORDANCE WITH RECOMMENDATIONS PRESENTED IN "SITEWORK" SECTION OF THE GEOTECHNICAL REPORT. THE REASONS FOR PROOF-ROLLING OF THE SUBGRADE IS THAT SOME SOILS HAVE BEEN FOUND TO COMPACT TO MINIMUM DENSITY REQUIREMENTS BUT TO STILL EXHIBIT "PUMPING" TENDENCIES. PROOF-ROLLING OF THE SUBGRADE SHOULD IDENTIFY THE SOILS THAT HAVE A TENDENCY TO PUMP SO THAT THEY CAN BE REMOVED AND REPLACED WITH MORE SUITABLE FOUNDATION SOILS APPROVED BY THE GEOTECHNICAL ENGINEER.

## STRUCTURAL FILL NOTES

STRUCTURAL FILL SHALL BE AS SPECIFIED IN THE GEOTECHNICAL REPORT SECTION "CONTROLLED FILL".

# COMPACTION TESTING NOTES

- 1. COMPACTION AND MOISTURE CONTENT OF SUBGRADE AND EACH LIFT OF STRUCTURAL FILL SHALL BE INSPECTED AND APPROVED BY A QUALIFIED ENGINEERING TECHNICIAN, SUPERVISED BY A GEOTECHNICAL ENGINEER.
- 2. SUBGRADE COMPACTION TESTS SHOULD BE PERFORMED AT AN AVERAGE RATE OF ONE TEST FOR EVERY 2,000 SF OF BUILDING PAD SUBGRADE AREA OR VERY 5,000 SF OF PAVEMENT OR GENERAL FILL AREA. WITH A MINIMUM OR THREE TESTS BEING PERFORMED FOR EACH DISTINCT SUBGRADE AREA.

| FILL AREA                         | PERCENT MAX<br>DENSITY PER<br>ASTM D698 | PERCENT MAX<br>DENSITY PER<br>ASTM D1557 |  |
|-----------------------------------|---|--|--|
| FOUNDATION SUPPORT FILL           | 98%                                     | 95%                                      |  |
| FOUNDATION BACKFILL               | 98%                                     | 95%                                      |  |
| SLAB-ON-GRADE, PAVED AREAS        | 98%                                     | 95%                                      |  |
| NON-STRUCTURAL AREAS, GREEN AREAS | 92%                                     | 90%                                      |  |

# □ SHEET KEYNOTES

- 6" HDPE CONNECTED TO DOWNSPOUT (0.8% SLOPE). SEE DETAIL 2/C-503 OUTLET CONTROL STRUCTURE. SEE DETAIL 9/C-503
- RIP-RAP SPILLWAY. SEE DETAIL 6/C-503
- RIP-RAP APRON. SEE DETAIL 8/C-502
- FLARED END SECTION. SEE DETAIL 5/C-503 REPLACE EXISTING CATCH BASIN FRAME AND GRATE WITH NEW FRAME AND

### GENERAL GRADING NOTES

- REFER TO C-001 COVER SHEET FOR GENERAL NOTES REFERENCING SURVEY INFORMATION, DATUMS, GENERAL PROJECT AND CONSTRUCTION INFORMATION
- 2. CONTRACTOR SHALL MAINTAIN ADEQUATE DRAINAGE AT ALL TIMES DURING CONSTRUCTION OF THE PROJECT.
- 3. YARD AREAS, SIDEWALKS AND PAVEMENT SHALL BE GRADED TO DRAIN AWAY FROM THE BUILDINGS. FINISHED SURFACES SUCH AS ALL PAVING, SIDEWALKS AND RAMPS IN ACCESSIBLE AREAS SHALL CONFORM TO FEDERAL AND NEW YORK STATE ACCESSIBILITY STANDARDS. ACCESSIBLE ROUTES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ARCHITECTURAL DRAWINGS AND WITH THE FOLLOWING:
  - PARKING AND LOADING AREAS MAXIMUM SLOPE OF 1:50 (2%) IN ALL DIRECTIONS IN ACCESSIBLE PARKING SPACES AND AISLES. ACCESSIBLE ROUTES - MAXIMUM SLOPE OF 1:20 (5%) IN THE DIRECTION OF TRAVEL. MAXIMUM CROSS SLOPE OF 1:50 (2%). BUILDING ENTRANCES AND EXITS - AT ALL LOCATIONS 5'X5' (MINIMUM) ACCESSIBLE, CONCRETE WALK WITH A MAXIMUM SLOPE OF 1:50 (2%) IN ALL DIRECTIONS.
- 4. CONTRACTOR SHALL GRADE THE SITE TO MATCH EXISTING GROUND AT THE LIMITS OF THE PROJECT SITE. ALL DRAINAGE ENTERING THE PROJECT AREA SHALL BE INTERCEPTED IN THE FINAL GRADING. TRANSITIONS TO EXISTING GROUND THAT ARE DIFFERENT FROM THE PLANS SHALL BE COORDINATED PRIOR TO FINAL GRADING. LAWN AREAS TO BE MOWED SHOULD NOT EXCEED A SLOPE OF 4:1.
- 5. ALL AREAS WITHIN THE PROJECT SITE SHALL BE GRADED TO DRAIN TO ON-SITE STORM SEWERS OR TO THE PUBLIC R.O.W. THE DEVELOPMENT SHALL NOT HAVE ANY ADVERSE IMPACTS TO SURROUNDING PROPERTIES.

### STORM DRAINAGE CONSTRUCTION NOTES

- CONSTRUCTION IN STORM SEWER AND DRAINAGE EASEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION'S REQUIREMENTS.
- SPECIFICATIONS: PIPES WITHIN THE PUBLIC R.O.W.:

PIPE SHALL BE CLASS III, WALL B, REINFORCED CONCRETE PIPE IN ACCORDANCE WITH ASTM C76. PIPES WITHIN PROPERTY:

- 4" AND GREATER SHALL BE HIGH DENSITY POLYETHYLENE PIPE (HDPE) WITH SOIL-TIGHT JOINTS IN ACCORDANCE WITH ASTM F2648 WITH RUBBER GASKETS MEETING ASTM F477 WITH FITTINGS IN ACCORDANCE WITH ASTM F2306 UNLESS OTHERWISE SPECIFIED. INSTALLATION OF HDPE STORM SEWERS SHALL BE IN ACCORDANCE WITH ASTM D2321 IN ALL CASES, CHANGES IN PIPE SIZE OR TYPE SHALL OCCUR AT AN APPROVED STRUCTURE. MANHOLES:
- USE ROUND CONCRETE MANHOLES WITH ECCENTRIC CONES WITH 24" OPENING IN ACCORDANCE WITH ASTM C478, RUBBER GASKETS IN ACCORDNACE WITH C433 AND STEPS IN ACCORDANCE WITH CATCH BASINS:
- USE SQUARE CONCRETE BOX IN ACCORDANCE WITH ASTM C913 WITH RUBBER GASKETS IN ACCORDANCE WITH C433 AND STEPS IN ACCORDANCE WITH ASTM C497. FRAMES AND COVERS:
- SHALL BE IN ACCORDANCE WITH AASHTO M105.
- 3. CONTRACTOR SHALL VERIFY ALL FLOWLINE OR INVERT ELEVATIONS 48 HOURS PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. IF A DISCREPANCY IS DISCOVERED, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.
- 4. ROOF DRAINAGE TO BE DIRECTED FROM BUILDING TO STORM SYSTEM VIA DOWNSPOUTS.

# SYMBOLS LEGEND

|                             | EXISTING                               | PROPOSED         |
|-----------------------------|--|------------------|
| CONTOUR-MAJOR               | 2.50                                   | 2.50             |
| CONTOUR-MINOR               | —————————————————————————————————————— | 2.50             |
| STORM SEWER                 |  |                  |
| TOP OF BANK                 |  |                  |
| SPOT GRADE                  | × <sup>2.50</sup>                      | +2.50            |
| SPOT GRADE TOP OF CURB      | ×TC2.50                                | +TC2.50          |
| DIRECTION OF WATER FLOW     | <b></b>                                | $\longleftarrow$ |
| DOWN SPOUT                  | O<br>D.S                               | O<br>D.S         |
| CATCH BASIN - NO CURB PIECE |  |                  |
| CURB INLET                  |  |                  |
| STORM MANHOLE               |  |                  |
| FLARED END SECTION          |  |                  |
| RIP RAP APRON               |  |                  |
| HEADWALL                    |  |                  |
| SURVEY BENCHMARK            | <del></del>                            |                  |

IVIL ENGINEER

518.453.9431

80 Wolf Road, Suite 300



**NOT FOR REVIEW AND** 

> JW CONGREGATION SUPPORT, INC 1005 RED MILLS ROAD

WALLKILL, NY 12589-3283

31 MAY 23 SUBMISSION TO TOWN 28 APR 23 SUBMISSION TO TOWN

15 FEB 23 SUBMISSION TO TOWN

11 NOV 22 SUBMISSION TO TOWN

16 SEP 22 CONCEPT FOR REVIEW

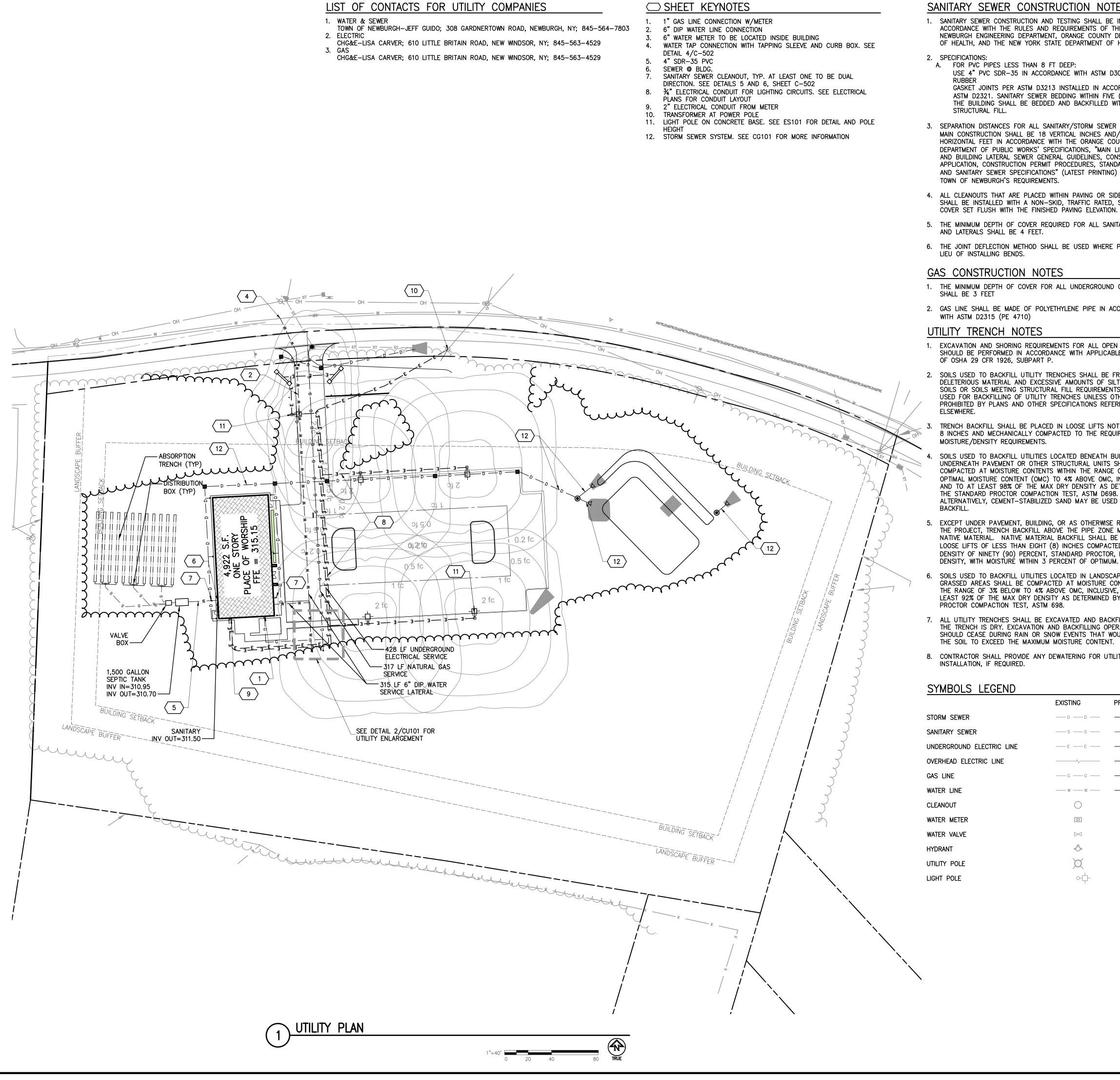
RK: DATE: DESCRIPTION:

20 OCT 22 GPI CONCEPT FOR REVIEW

NEWBURGH KINGDOM HALI OF JEHOVAH'S WITNESSES 33 OLD LITTLE BRITAIN R NEWBURGH, NY 12550

GRADING AND DRAINAGE PLAN

CG101



## SANITARY SEWER CONSTRUCTION NOTES

- 1. SANITARY SEWER CONSTRUCTION AND TESTING SHALL BE IN ACCORDANCE WITH THE RULES AND REQUIREMENTS OF THE TOWN OF NEWBURGH ENGINEERING DEPARTMENT, ORANGE COUNTY DEPARTMENT OF HEALTH, AND THE NEW YORK STATE DEPARTMENT OF HEALTH.
  - A. FOR PVC PIPES LESS THAN 8 FT DEEP: USE 4" PVC SDR-35 IN ACCORDANCE WITH ASTM D3034 WITH GASKET JOINTS PER ASTM D3213 INSTALLED IN ACCORDANCE WITH ASTM D2321. SANITARY SEWER BEDDING WITHIN FIVE (5) FEET OF THE BUILDING SHALL BE BEDDED AND BACKFILLED WITH
  - 3. SEPARATION DISTANCES FOR ALL SANITARY/STORM SEWER AND WATER MAIN CONSTRUCTION SHALL BE 18 VERTICAL INCHES AND/OR 10 HORIZONTAL FEET IN ACCORDANCE WITH THE ORANGE COUNTY DEPARTMENT OF PUBLIC WORKS' SPECIFICATIONS. "MAIN LINE SEWER AND BUILDING LATERAL SEWER GENERAL GUIDELINES, CONSTRUCTION APPLICATION, CONSTRUCTION PERMIT PROCEDURES, STANDARD DETAILS, AND SANITARY SEWER SPECIFICATIONS" (LATEST PRINTING) AND THE TOWN OF NEWBURGH'S REQUIREMENTS.
  - 4. ALL CLEANOUTS THAT ARE PLACED WITHIN PAVING OR SIDEWALK AREAS SHALL BE INSTALLED WITH A NON-SKID, TRAFFIC RATED, SEALED METAL
  - 5. THE MINIMUM DEPTH OF COVER REQUIRED FOR ALL SANITARY SEWERS AND LATERALS SHALL BE 4 FEET.
  - 6. THE JOINT DEFLECTION METHOD SHALL BE USED WHERE PRACTICAL IN

### GAS CONSTRUCTION NOTES

- 1. THE MINIMUM DEPTH OF COVER FOR ALL UNDERGROUND GAS CONDUIT
- 2. GAS LINE SHALL BE MADE OF POLYETHYLENE PIPE IN ACCORDANCE WITH ASTM D2315 (PE 4710)

### UTILITY TRENCH NOTES

- 1. EXCAVATION AND SHORING REQUIREMENTS FOR ALL OPEN EXCAVATIONS SHOULD BE PERFORMED IN ACCORDANCE WITH APPLICABLE PROVISIONS OF OSHA 29 CFR 1926, SUBPART P.
- 2. SOILS USED TO BACKFILL UTILITY TRENCHES SHALL BE FREE OF DELETERIOUS MATERIAL AND EXCESSIVE AMOUNTS OF SILT. NATIVE SOILS OR SOILS MEETING STRUCTURAL FILL REQUIREMENTS MAY BE USED FOR BACKFILLING OF UTILITY TRENCHES UNLESS OTHERWISE PROHIBITED BY PLANS AND OTHER SPECIFICATIONS REFERENCED
- TRENCH BACKFILL SHALL BE PLACED IN LOOSE LIFTS NOT TO EXCEED 8 INCHES AND MECHANICALLY COMPACTED TO THE REQUIRED MOISTURE/DENSITY REQUIREMENTS.
- SOILS USED TO BACKFILL UTILITIES LOCATED BENEATH BUILDINGS, UNDERNEATH PAVEMENT OR OTHER STRUCTURAL UNITS SHALL BE COMPACTED AT MOISTURE CONTENTS WITHIN THE RANGE OF THE OPTIMAL MOISTURE CONTENT (OMC) TO 4% ABOVE OMC. INCLUSIVE. AND TO AT LEAST 98% OF THE MAX DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR COMPACTION TEST. ASTM D698. ALTERNATIVELY, CEMENT-STABILIZED SAND MAY BE USED FOR UTILITY
- 5. EXCEPT UNDER PAVEMENT, BUILDING, OR AS OTHERWISE REQUIRED FOR THE PROJECT. TRENCH BACKFILL ABOVE THE PIPE ZONE MAY BE NATIVE MATERIAL. NATIVE MATERIAL BACKFILL SHALL BE PLACED IN LOOSE LIFTS OF LESS THAN EIGHT (8) INCHES COMPACTED TO A DENSITY OF NINETY (90) PERCENT, STANDARD PROCTOR, MAXIMUM DRY DENSITY, WITH MOISTURE WITHIN 3 PERCENT OF OPTIMUM.
- 6. SOILS USED TO BACKFILL UTILITIES LOCATED IN LANDSCAPED OR GRASSED AREAS SHALL BE COMPACTED AT MOISTURE CONTENTS IN THE RANGE OF 3% BELOW TO 4% ABOVE OMC. INCLUSIVE. AND TO AT LEAST 92% OF THE MAX DRY DENSITY AS DETERMINED BY STANDARD PROCTOR COMPACTION TEST, ASTM 698.
- 7. ALL UTILITY TRENCHES SHALL BE EXCAVATED AND BACKFILLED WHILE THE TRENCH IS DRY. EXCAVATION AND BACKFILLING OPERATIONS SHOULD CEASE DURING RAIN OR SNOW EVENTS THAT WOULD CAUSE THE SOIL TO EXCEED THE MAXIMUM MOISTURE CONTENT.
- 8. CONTRACTOR SHALL PROVIDE ANY DEWATERING FOR UTILITY

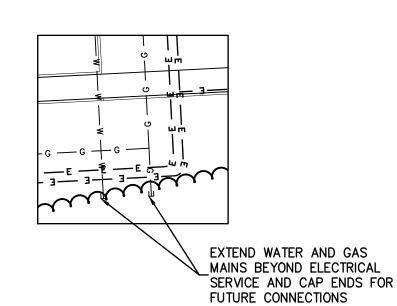
| _                         | EXISTING     | PROPOSED   |
|---------------------------|--------------|------------|
| STORM SEWER               | — D — D —    | — D — D —  |
| SANITARY SEWER            | —-s —-s —    | —s —s —    |
| UNDERGROUND ELECTRIC LINE | — Е — Е —    | — Е — Е —  |
| OVERHEAD ELECTRIC LINE    | ~~~~~        | <b></b>    |
| GAS LINE                  | —— G —— G —— | — с — с —  |
| WATER LINE                |              | — w — w —  |
| CLEANOUT                  | $\bigcirc$   |            |
| WATER METER               |              |            |
| WATER VALVE               | $\bowtie$    | H          |
| HYDRANT                   | \$           | ♦          |
| UTILITY POLE              | Ø            | Ø          |
| LIGHT POLE                | 0-[-         | <b>←</b> ‡ |
|                           |              |            |
|                           |              |            |

### GENERAL UTILITY NOTES

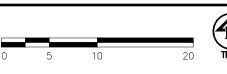
- 1. REFER TO C-001 COVER SHEET FOR GENERAL NOTES REFERENCING SURVEY INFORMATION, DATUMS, GENERAL PROJECT AND CONSTRUCTION
- 2. CONTRACTOR IS NOTIFIED THAT EXISTING UTILITIES ARE PRESENT AND UTILITY INFORMATION SHOWN ON THE PLANS HAVE BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OF COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION.
- 3. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES WITHIN PROJECT LIMITS TO PREVENT DAMAGE OR IDENTIFY IF ADJUSTMENTS ARE NEEDED. CONTRACTOR SHALL NOTIFY ALL UTILITIES RELATED TO THE PROJECT AT LEAST 2 BUT NOT MORE THAN 10 DAYS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOT PROCEED WITH WORK IN AREAS WHERE UTILITIES HAVE NOT BEEN LOCATED AND MARKED BY UTILITY COMPANIES. FOR UTILITY MARKOUT, CALL DIGSAFENY (811)
- 4. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO CONFIRM EXISTING INVERTS, MATERIALS AND SIZES, SUCH THAT CONFLICTS MAY BE AVOIDED.
- 5. CONTRACTOR MUST VERIFY ALL EXISTING WATER, SEWER, AND STORMWATER INFRASTRUCTURE WITHIN THE PROPERTY AND PUBLIC RIGHT-OF-WAY BEFORE ORDERING STRUCTURES OR CONNECTING TO EXISTING LINES. CONFIRMATION MUST INCLUDE ALL HORIZONTAL AND VERTICAL LOCATIONS.
- 6. UNLESS OTHERWISE NOTED, MAINTAIN 6 INCHES OF VERTICAL CLEARANCE (MINIMUM) AT CROSSINGS BETWEEN ALL UNDERGROUND
- 7. REFER TO ELECTRICAL SITE PLAN FOR ELECTRICAL CONDUIT SPECIFICATIONS

### WATER UTILITY NOTES

- 1. WATER CONSTRUCTION NOTES SHALL APPLY TO THE ON-SITE, DOMESTIC AND FIRE SYSTEMS FROM FIVE FEET OUTSIDE THE BUILDING TO THE METER OR SERVICE CONNECTION.
- 2. ALL WATER LINE CONSTRUCTION AND TESTING SHALL CONFORM TO THE REQUIREMENTS OF THE ORANGE COUNTY DEPARTMENT OF PUBLIC
- 3. SEPARATION DISTANCES FOR ALL WATER MAIN AND SANITARY/STORM SEWER MAIN CONSTRUCTION SHALL BE 18 VERTICAL INCHES AND/OR 10 HORIZONTAL FEET IN ACCORDANCE WITH THE ORANGE COUNTY DEPARTMENT OF PUBLIC WORKS' SPECIFICATIONS, "MAIN LINE SEWER AND BUILDING LATERAL SEWER GENERAL GUIDELINES, CONSTRUCTION APPLICATION, CONSTRUCTION PERMIT PROCEDURES, STANDARD DETAILS, AND SANITARY SEWER SPECIFICATIONS" (LATEST PRINTING).
- 4. ALL WATER LINES SHALL BE CONSTRUCTED ABOVE SANITARY SEWERS AT ALL CROSSINGS. ALL WATER LINES SHALL BE CONSTRUCTED WITH A MINIMUM OF 18 INCHES FROM SEWER LINES. WHEN POTABLE WATER LINES PASS UNDERNEATH SEWER LINES, AN EIGHTEEN-FOOT LONG, CONTINUOUS JOINT OF WATER LINE SHALL BE CENTERED AT ALL CROSSINGS WITH SANITARY SEWERS.
- 5. SPECIFICATIONS: DOMESTIC WATER SERVICE:
- 3/4" TO 2" USE COPPER, TYPE K, IN ACCORDANCE WITH ASTM PRIVATE FIRE SERVICE:
- <4" 3" TO 12" USE DUCTILE IRON PIPE PRESSURE CLASS 350 IN ACCORDANCE WITH ANSI/AWWA A21.50/C151, FITTINGS MEETING ANSI/AWWA A21.53/C153, WITH RUBBER GASKETS MEETING ANSI/AWWA A21.11.C111. PIPING SHALL USE CEMENT MORTAR LINING MEETING THE REQUIREMENTS OF AWWA C153
- 6. WATER LINE CONSTRUCTION SHALL INCLUDE BEDDING AND MECHANICAL JOINT RESTRAINTS IN ACCORDANCE WITH THE DETAILS.
- 7. WATER LINES WITHIN FIVE (5) FEET OF THE BUILDING SHALL BE BEDDED AND BACKFILLED USING STRUCTURAL FILL. WATER LINES BEYOND FIVE (5) FEET FROM THE BUILDING AND 4" IN DIAMETER OR GREATER SHALL BE BEDDED AND BACKFILLED PER DETAIL 11/C-502.
- 8. CONTRACTOR TO PERFORM CHLORINATION AND BACTERIOLOGICAL SAMPLING AND OBTAIN CLEARANCE OF DOMESTIC WATER SYSTEM. COPIES OF ALL BACTERIOLOGICAL TESTS TO BE SUBMITTED TO OWNER AND ENGINEER.
- 9. FIRE HYDRANT, GATE VALVE, AND BLOW-OFF VALVE ASSEMBLIES SHALL CONSISTS OF ALL PIPE, VALVES, TEES, FITTINGS, AND ANY AND ALL OTHER APPURTENANCES COMPRISING A COMPLETE WORKING UNIT.
- 10. ALL COMPONENTS OF THE WATER SYSTEM SHALL REMAIN UNCOVERED UNTIL PROPERLY PRESSURE TESTED AND ACCEPTED BY THE TOWN OF NEWBURGH'S WATER DEPARTMENT OR THE CHIEF ENGINEER. PRESSURE TESTS SHALL BE IN ACCORDANCE WITH THE ORANGE COUNTY DEPARTMENT OF PUBLIC WORKS' SPECIFICATIONS.
- 11. THE CONTRACTOR SHALL NOT OPERATE ANY VALVES OR PRESSURE TEST AGAINST ANY COUNTY/CITY INSTALLED VALVES OR FITTINGS.
- 12. SEE SHEET C-505 FOR TOWN OF NEWBURGH WATER SYSTEM



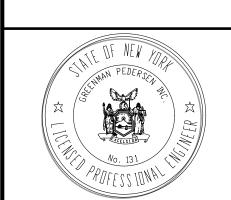




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> JW CONGREGATION SUPPORT, INC 1005 RED MILLS ROAD

WALLKILL, NY 12589-3283

31 MAY 23 SUBMISSION TO TOWN

28 APR 23 SUBMISSION TO TOWN

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16 SEP 22 CONCEPT FOR REVIEW

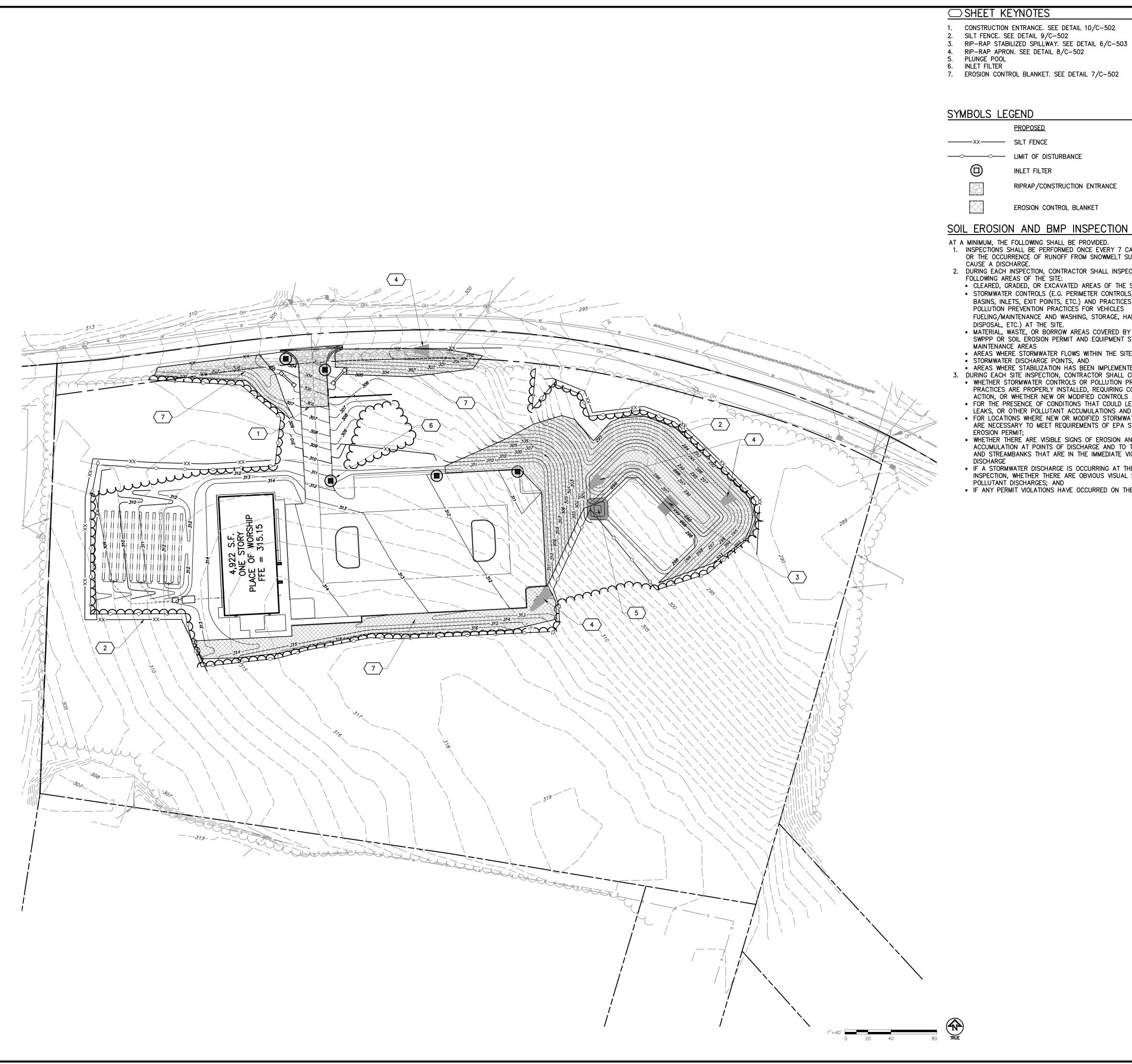
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NEWBURGH KINGDOM HALI OF JEHOVAH'S WITNESSES

NEWBURGH, NY 12550

UTILITY PLAN



### SHEET KEYNOTES

- SILT FENCE. SEE DETAIL 9/C-502
- RIP-RAP APRON. SEE DETAIL 8/C-502
- EROSION CONTROL BLANKET. SEE DETAIL 7/C-502

# SYMBOLS LEGEND

<u>PROPOSED</u>

INLET FILTER

RIPRAP/CONSTRUCTION ENTRANCE

EROSION CONTROL BLANKET

### SOIL EROSION AND BMP INSPECTION NOTES

- 1. INSPECTIONS SHALL BE PERFORMED ONCE EVERY 7 CALENDAR DAYS OR THE OCCURRENCE OF RUNOFF FROM SNOWMELT SUFFICIENT TO
- 2. DURING EACH INSPECTION, CONTRACTOR SHALL INSPECT THE
- CLEARED, GRADED, OR EXCAVATED AREAS OF THE SITE • STORMWATER CONTROLS (E.G. PERIMETER CONTROLS, SEDIMENT BASINS, INLETS, EXIT POINTS, ETC.) AND PRACTICES (E.G. POLLUTION PREVENTION PRACTICES FOR VEHICLES FUELING/MAINTENANCE AND WASHING, STORAGE, HANDLING AND DISPOSAL, ETC.) AT THE SITE.
- MATERIAL, WASTE, OR BORROW AREAS COVERED BY AN EPA SWPPP OR SOIL EROSION PERMIT AND EQUIPMENT STORAGE MAINTENANCE AREAS
- AREAS WHERE STORMWATER FLOWS WITHIN THE SITE. STORMWATER DISCHARGE POINTS, AND
- AREAS WHERE STABILIZATION HAS BEEN IMPLEMENTED.
- 3. DURING EACH SITE INSPECTION, CONTRACTOR SHALL CHECK: WHETHER STORMWATER CONTROLS OR POLLUTION PREVENTION PRACTICES ARE PROPERLY INSTALLED, REQUIRING CORRECTIVE ACTION, OR WHETHER NEW OR MODIFIED CONTROLS ARE REQUIRED; • FOR THE PRESENCE OF CONDITIONS THAT COULD LEAD TO SPILLS,
- LEAKS, OR OTHER POLLUTANT ACCUMULATIONS AND DISCHARGES; • FOR LOCATIONS WHERE NEW OR MODIFIED STORMWATER CONTROLS ARE NECESSARY TO MEET REQUIREMENTS OF EPA SWPPP OR SOIL
- WHETHER THERE ARE VISIBLE SIGNS OF EROSION AND SEDIMENT ACCUMULATION AT POINTS OF DISCHARGE AND TO THE CHANNELS AND STREAMBANKS THAT ARE IN THE IMMEDIATE VICINITY OF THE
- IF A STORMWATER DISCHARGE IS OCCURRING AT THE TIME OF INSPECTION, WHETHER THERE ARE OBVIOUS VISUAL SIGNS OF POLLUTANT DISCHARGES: AND
- IF ANY PERMIT VIOLATIONS HAVE OCCURRED ON THE SITE

### GENERAL SHEET NOTES

- 1. REFER TO C-001 COVER SHEET FOR GENERAL NOTES REFERENCING SURVEY INFORMATION, DATUMS, GENERAL PROJECT AND CONSTRUCTION INFORMATION.
- 2. BMP INSPECTIONS TO BE SCHEDULED DURING CONSTRUCTION. ALL SOIL EROSION AND SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION;, "NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" CURRENT EDITION.
- 3. PLEASE REFER TO EARTHWORK AND UTILITY TRENCH NOTES ON THE GRADING PLAN AS WELL AS FOR SPECIFIC REFERENCE TO THE GEOTECHNICAL REPORT.
- 4. ALL SOIL TO BE EXPOSED OR STOCKPILED FOR A PERIOD OF GREATER THAN 14 DAYS, AND NOT UNDER ACTIVE CONSTRUCTION SHALL BE TEMPORARILY SEEDED AND HAY MULCHED OR OTHERWISE PROVIDED WITH VEGETATIVE COVER. THIS TEMPORARY COVER SHALL BE MAINTAINED UNTIL SUCH TIME WHEREBY PERMANENT RESTABILIZATION IS ESTABLISHED.
- 5. SEDIMENT FENCES ARE TO BE PROPERLY TRENCHED AND MAINTAINED UNTIL PERMANENT VEGETATIVE COVER IS ESTABLISHED.
- 6. ALL EROSION CONTROL DEVICES SHALL BE PERIODICALLY INSPECTED, MAINTAINED AND CORRECTED BY THE CONTRACTOR. ANY DAMAGE INCURRED BY EROSION SHALL BE IMMEDIATELY RECTIFIED.
- 7. SEDIMENT IN BASINS SHALL BE REMOVED AT REGULAR INTERVALS. THE LAST TWO FEET OF ANY INFILTRATION BASINS SHOULD NOT BE EXCAVATED IF IT WILL BE USED AS A SEDIMENT BASIN. BASIN CONSTRUCTION MUST NOT COMPACT SOILS AT BASIN BOTTOM.
- 8. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES. DO NOT UTILIZE A FIRE OR GARDEN HOSE TO CLEAN ROADS UNLESS THE RUNOFF IS DIRECTED TO A PROPERLY DESIGNED AND FUNCTIONING SEDIMENT BASIN. ALL PUMP DEWATERING SHALL BE DIRECTED TOWARD A SEDIMENT BASIN.
- 9. THE MAXIMUM SOIL SLOPES SHALL NOT EXCEED 3:1 UNLESS ADDITIONAL MEASURES ARE TAKEN AND APPROVED.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND WILL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. DEWATERMING METHODS SHALL BE USED TO KEEP TRENCHES DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED.

## CLEARING/DEMOLITION NOTES

- 1. PRIOR TO ANY SOIL DISTURBANCE OR LAND CLEARING, ALL SOIL EROSION AND SEDIMENT CONTROLS MUST BE IN PLACE.
- PRIOR TO ANY SITE CLEARING, ALL TREES SHOWN TO REMAIN AS INDICATED ON PLANS SHALL BE PROTECTED IN ACCORDANCE WITH LOCAL REGULATIONS. THE CONTRACTOR SHALL MAINTAIN THESE TREES IN GOOD CONDITION.
- 3. THE CONTRACTOR SHALL CLEAR AND GRUB ONLY THOSE PORTIONS OF THE SITE NECESSARY FOR CONSTRUCTION, AS NOTED ON THE PLANS.
- 4. THE CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANIES TO DISCONNECT / RELOCATE THEIR FACILITIES WITHIN THE LIMITS OF CONSTRUCTION PRIOR TO ANY DEMOLITION.
- 5. REMAINING EARTHWORK THAT RESULTS FROM CLEARING AND GRUBBING OR SITE EXCAVATION IS TO BE UTILIZED ONSITE, PROVIDED THAT THE MATERIAL IS DEEMED SUITABLE FOR CONSTRUCTION BY THE OWNER'S SOIL TESTING COMPANY.
- 6. THE CONTRACTOR SHALL CALL DIGSAFENY (811) AT LEAST 72 HOURS PRIOR TO ANY EARTHWORK ACTIVITIES.

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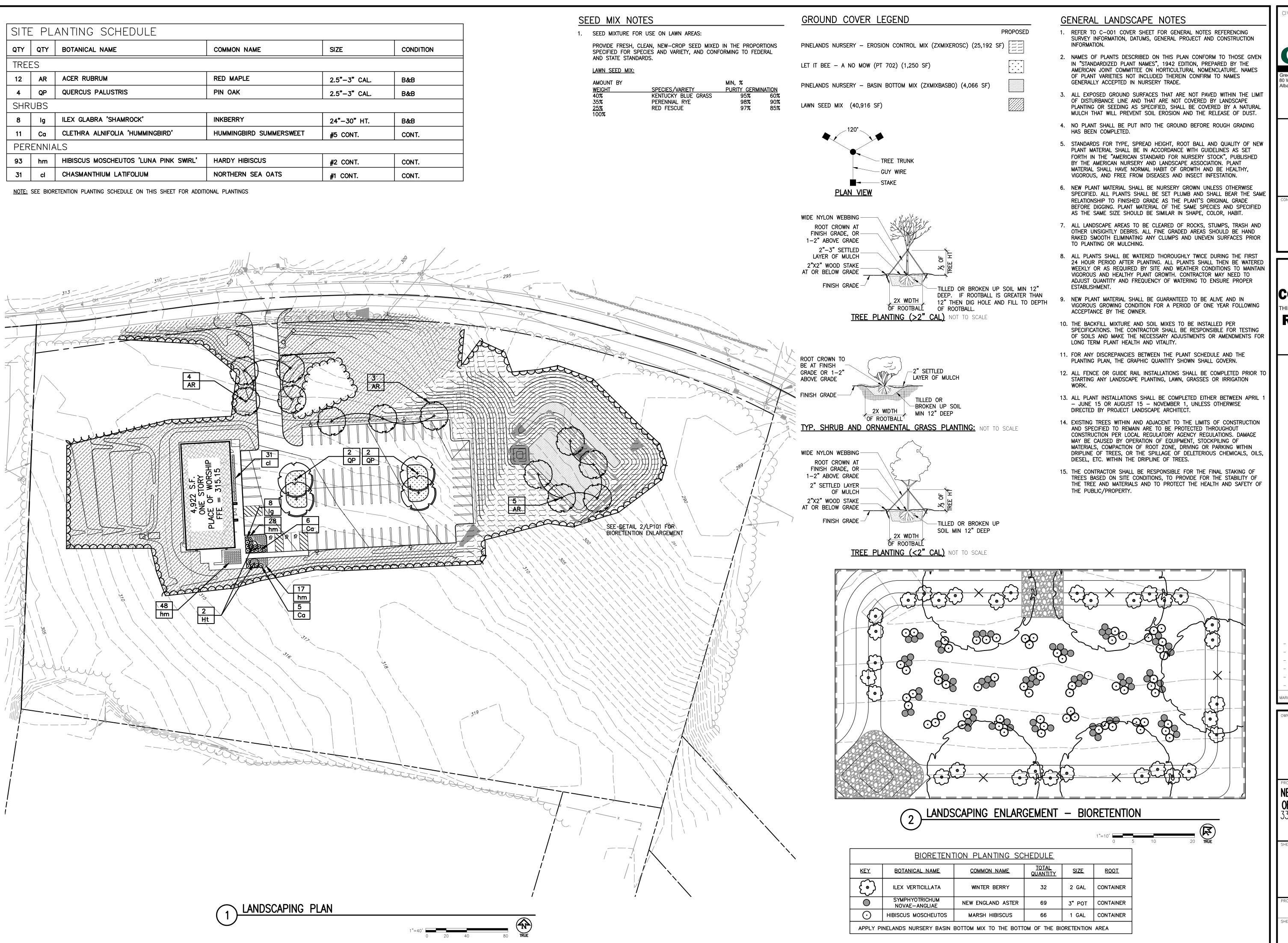
20 OCT 22 GPI CONCEPT FOR REVIEW 16 SEP 22 CONCEPT FOR REVIEW

JW CONGREGATION SUPPORT, INC.

1005 RED MILLS ROAD WALLKILL, NY 12589-3283

NEWBURGH KINGDOM HALI OF JEHOVAH'S WITNESSES NEWBURGH, NY 12550

**EROSION CONTROL** 



CIVIL ENGINEER

FNCING

Engineering
Design
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Greenman-Pedersen, Inc. 80 Wolf Road, Suite 300 Albany, NY 12205



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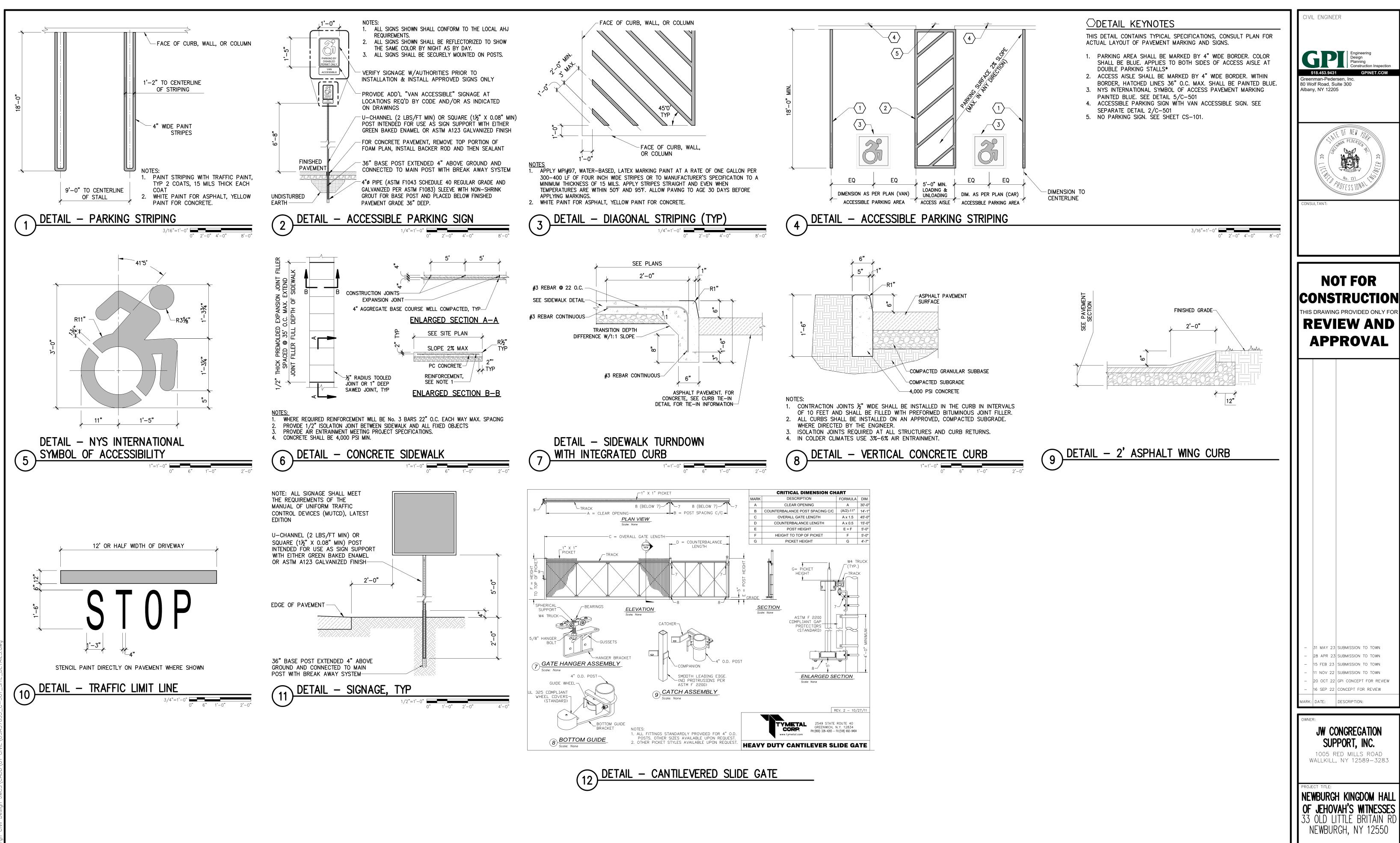
NEWBURGH KINGDOM HALL
OF JEHOVAH'S WITNESSES
33 OLD LITTLE BRITAIN RD
NEWBURGH, NY 12550

TITLE:

LANDSCAPING PLAN

No. **37147** 

LP101

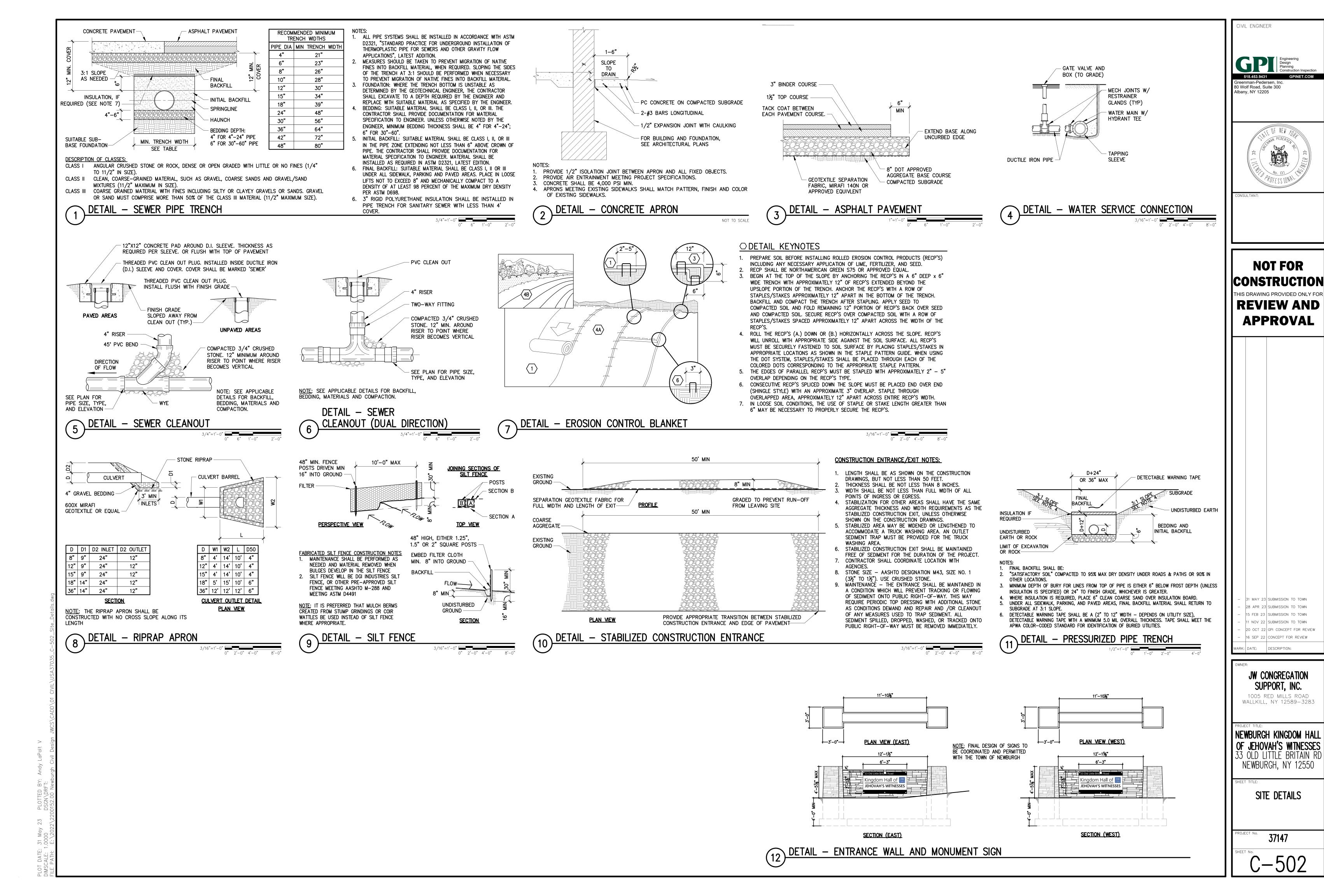


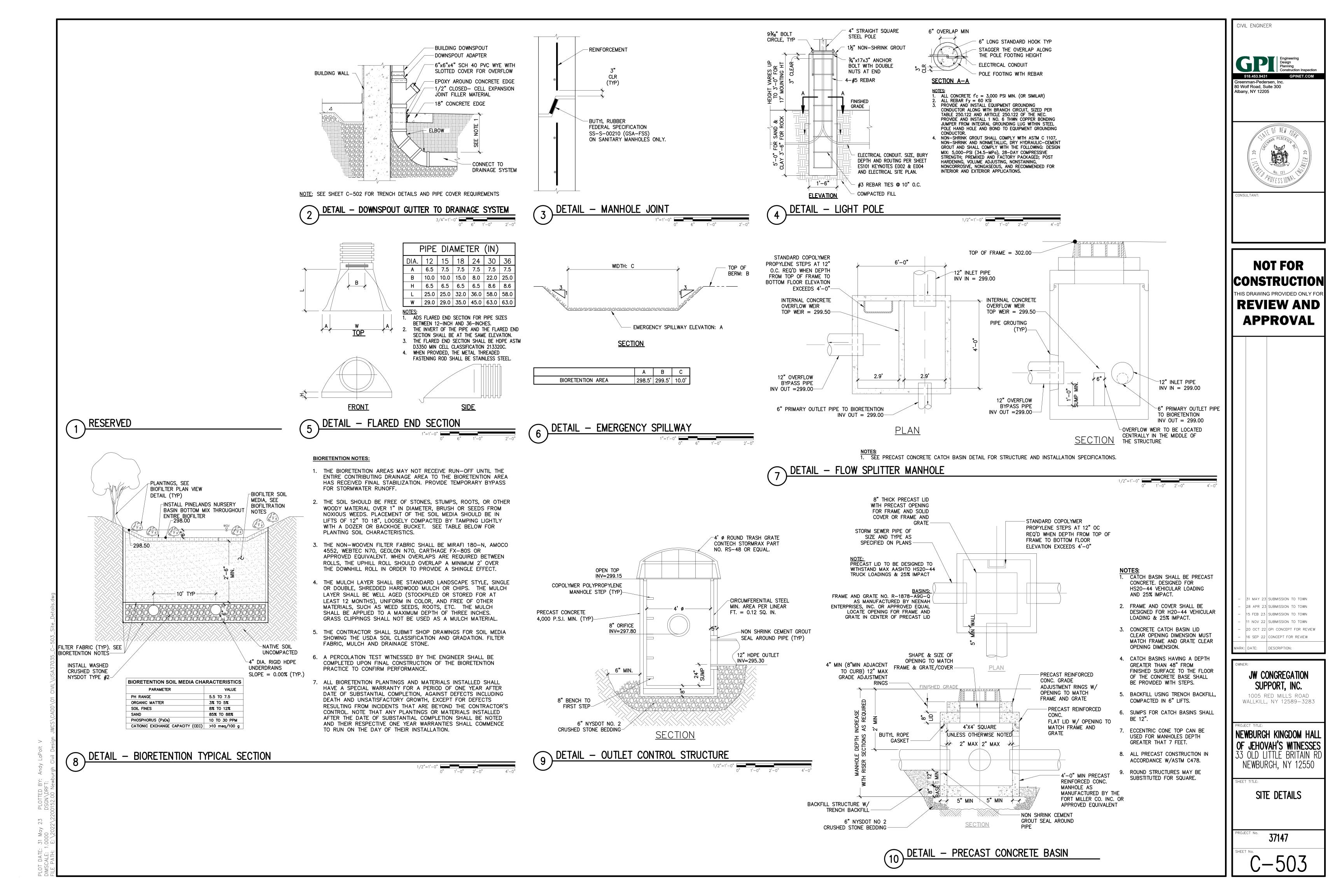
SUPPORT, INC

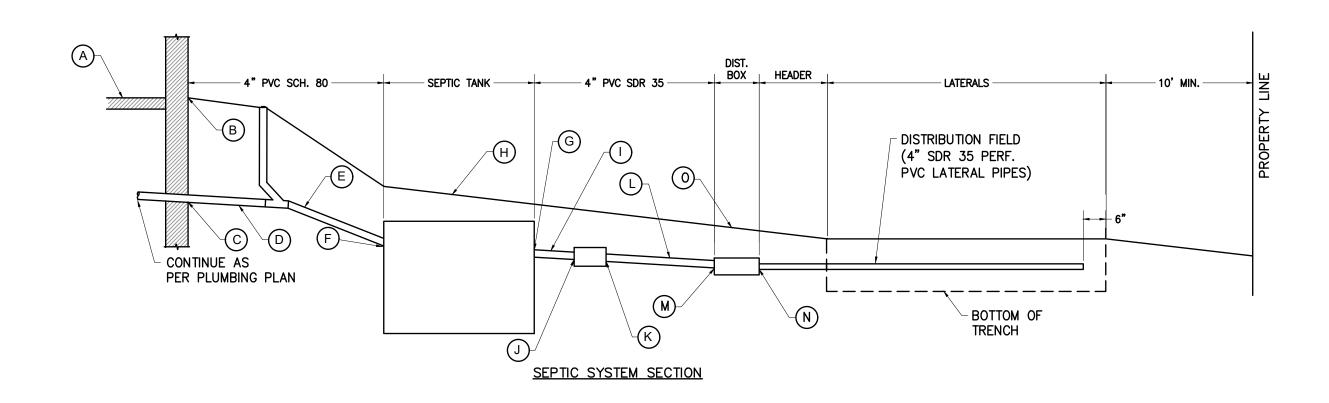
**NOT FOR** 

NEWBURGH KINGDOM HALI OF JEHOVAH'S WITNESSES NEWBURGH, NY 12550

SITE DETAILS







### **DESIGN CALCULATIONS:**

NOTE: SEE SITE PLANS FOR SYSTEM LAYOUT/LOCATION. DESIGN FLOW = 660 GPD (BASED ON 220 SEATS @ 3 GPD/SEAT)

PERCOLATION RATE = 18 MINUTES APPLICATION RATE = 0.7 GPD/SF (RATE DETERMINED FROM THE "DESIGN

STANDARDS FOR WASTEWATER TREATMENT WORKS TABLE 10 (NYSDEC)) FOR PERCOLATION RATE OF 18 MINUTES PER INCH.

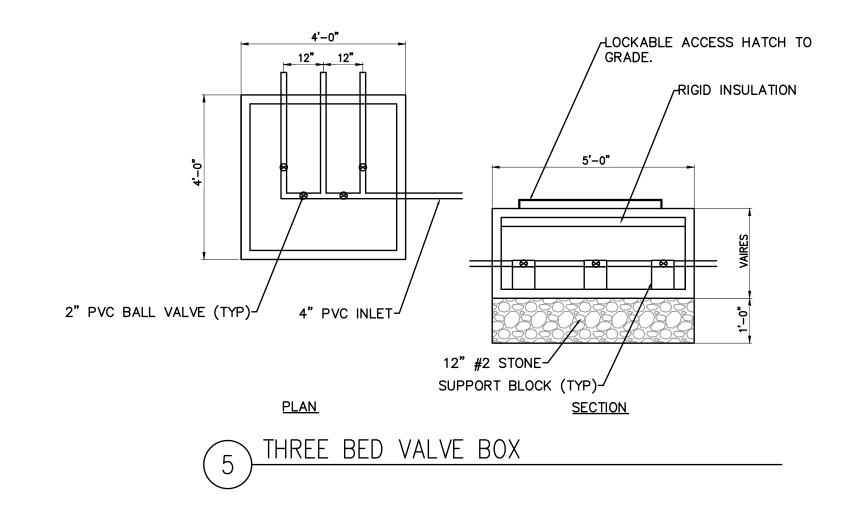
THREE SECTION DESIGN: 50% OF DESIGN FLOW PER SECTION = 660 GPD/2 = 330 GPDREQUIRED ABSORPTION TRENCH AREA =  $330 \text{ GPD}/0.7 \text{ GPD/SF} = \pm 470 \text{ SF}$ 

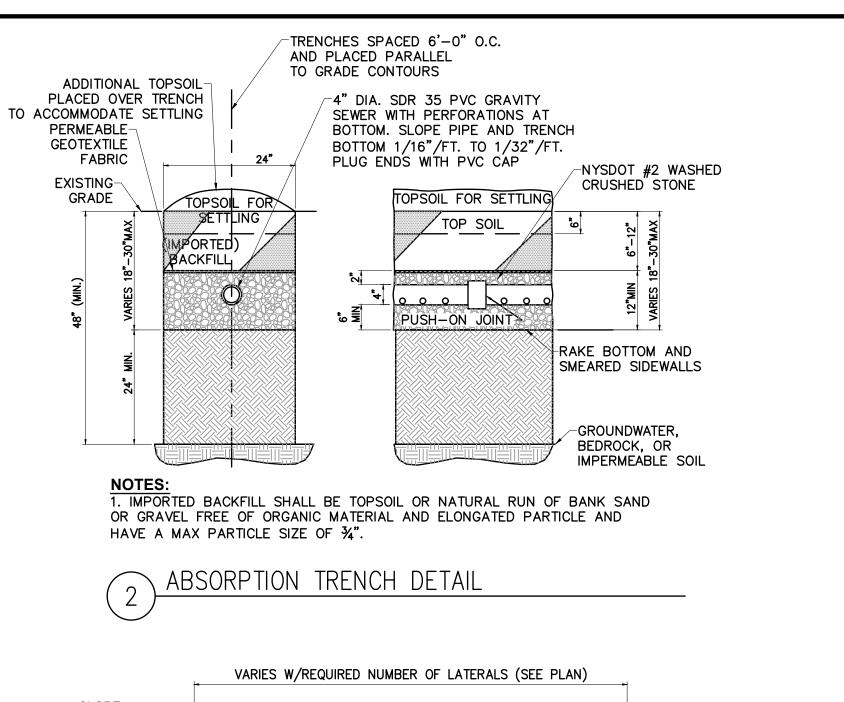
REQUIRED LATERAL LENGTH =  $470 \text{ SF/2} = \pm 235 \text{ LF (MIN)}$ LATERALS PROVIDED PER DESIGN = (4) LATERALS AT 60 FT EACH = 240 LF

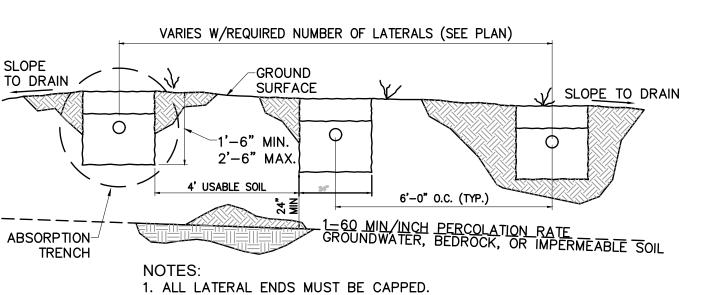
REQUIRED SEPTIC TANK SIZE = 24/12 \* 660 = 1,320SIZE PROVIDED PER DESIGN = 1,500 GALLONS

| ITEM - DESCRIPTION                      | PROPOSED SEPTIC | SYSTEM DESIGN | INFORMATION  |
|---|-----------------|---------------|--------------|
| A) PROPOSED F.F. ELEVATION              | 316.40          |               |              |
| B) GROUND ELEVATION @ INV. OUT OF BLDG  | 315.90          |               |              |
| C) INV. OUT OF BUILDING                 | 311.50          |               |              |
| D) LENGTH AND SLOPE (TO CLEANOUT)       | 5 LF @ 1.0%     |               |              |
| E) LENGTH AND SLOPE (AFTER CLEANOUT)    | 20 LF @ 2.5%    |               |              |
| F) INV. IN @ SEPTIC TANK                | 310.95          |               |              |
| G) INV. OUT @ SEPTIC TANK               | 310.70          |               |              |
| H) GROUND ELEVATION ABOVE SEPTIC TANK   | 313.50          |               |              |
| I) LENGTH AND SLOPE (TANK TO VALVE BOX) | 5 LF @ 2.5%     |               |              |
| J) INV. IN VALVE BOX                    | 310.58          |               |              |
| K) INV. OUT VALVE BOX                   | 310.48          |               |              |
|   | FIELD 1         | FIELD 2       | FIELD 3      |
| L) LENGTH AND SLOPE (TANK TO DBOX)      | 15 LF @ 1.5%    | 36 LF @ 4.8%  | 61 LF @ 5.3% |
| M) INV. IN D-BOX                        | 310.25          | 308.75        | 307.25       |
| N) INV. OUT D-BOX                       | 310.00          | 308.50        | 307.00       |
| O) GROUND ELEVATION ABOVE D-BOX         | 312.00          | 310.50        | 309.00       |

# SEPTIC SYSTEM CROSS SECTION

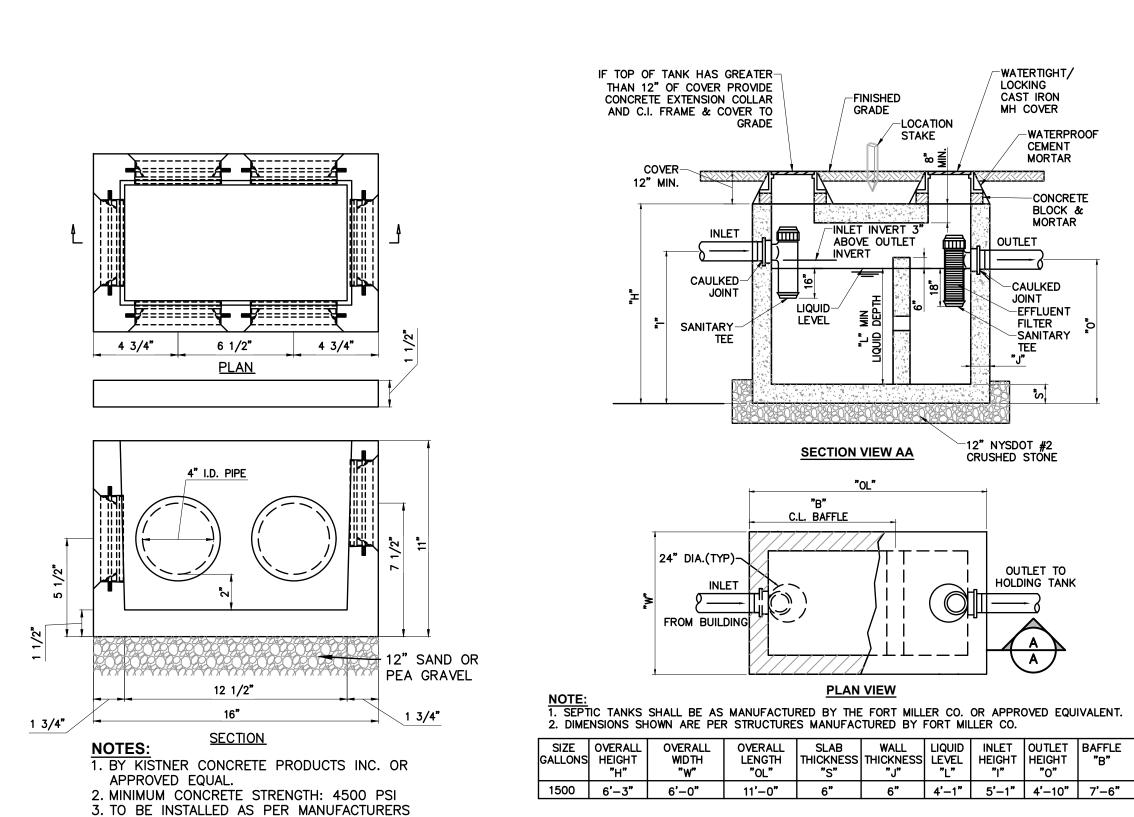






ABSORPTION TRENCH SECTION LAYOUT

2. THE MAXIMUM LATERAL SLOPE IS 1/16" PER FOOT.



5 OUTLET DISTRIBUTION BOX

SPECIFICATIONS

CONCRETE SEPTIC TANK

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16 SEP 22 CONCEPT FOR REVIEW MARK: DATE: DESCRIPTION: JW CONGREGATION SUPPORT, INC 1005 RED MILLS ROAD

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NEWBURGH KINGDOM HALI 33 OLD LITTLE BRITAIN R NEWBURGH, NY 12550

WALLKILL, NY 12589-3283

SITE DETAILS

RESERVED

"NEW YORK STATE DESIGN STANDARDS FOR INTERMEDIATE SIZED WASTEWATER TREATMENT SYSTEM", NYSDEC

"APPENDIX 75-A, WASTE TREATMENT-INDIVIDUAL HOUSEHOLD SYSTEMS, NEW YORK STATE SANITARY CODE."

"RECOMMENDED STANDARDS FOR SEWAGE TREATMENT WORKS, (TEN

"RECOMMENDED STANDARDS FOR WATER WORKS, (TEN STATES)."

"NEW YORK STATE DEPARTMENT OF HEALTH AND ORANGE COUNTY ENVIRONMENTAL HEALTH SERVICES DIVISION POLICIES, PROCEDURES AND STANDARDS."

"ORANGE COUNTY AND NEW YORK STATE SANITARY CODES."

THIS PLAN IS APPROVED AS MEETING THE APPROPRIATE AND APPLIED TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES FOR ARRANGEMENT OF SEWAGE DISPOSAL

UPON COMPLETION OF THE FACILITIES, THE FINISHED WORKS SHALL BE INSPECTED, TESTED, AND CERTIFIED COMPLETE TO THE NYSDEC BY THE NEW YORK STATE LICENSED PROFESSIONAL ENGINEER SUPERVISING CONSTRUCTION. NO PART OF THE FACILITIES SHALL BE PLACED INTO SERVICE UNTIL ACCEPTED BY THE AUTHORITY HAVING JURISDICTION.

IT SHALL BE DEMONSTRATED BY THE CONTRACTOR TO THE DESIGN PROFESSIONAL THAT THE TANK IS SEALED. WATERTIGHT AND ACCEPTABLE FOR USE. THIS SHALL REQUIRE, AT A MINIMUM, THE FILLING OF THE TANK WITH WATER TO OBSERVE IF IT IS IN FACT SEALED, WATERTIGHT AND ACCEPTABLE FOR USE. THE DESIGN PROFESSIONAL SHALL CERTIFY TO THE DC EHSD THAT THE TANK IS SEALED, WATERTIGHT, AND ACCEPTABLE FOR USE. THE TANK MUST ALSO MEET ANY LOCAL TESTING REQUIREMENTS, INCLUDING POSSIBLE ELECTRICAL AND SAFETY STANDARDS.

APPROVAL OF ANY PLAN(S) OR AMENDMENT THERETO SHALL BE VALID FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF APPROVAL. FOLLOWING THE EXPIRATION OF SAID APPROVAL. THE PLAN(S) SHALL BE RE-SUBMITTED TO THE COMMISSIONER OF HEALTH FOR CONSIDERATION FOR RE-APPROVAL. RE-SUBMISSION OR REVISED SUBMISSION OF PLANS AND/OR ASSOCIATED DOCUMENTS SHALL BE SUBJECT TO COMPLIANCE WITH THE TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES IN EFFECT AT THE TIME OF THE RE-SUBMISSION.

ALL ONSITE WASTEWATER TREATMENT SYSTEM EXISTING OR APPROVED WITHIN 300 FEET OF THE PROPOSED ONSITE WASTEWATER TREATMENT SYSTEM ARE SHOWN ON THIS PLAN, ALONG WITH ANY OTHER ENVIRONMENTAL HAZARDS IN THE AREA THAT MAY AFFECT THE DESIGN AND FUNCTIONAL ABILITY OF THE ONSITE WASTEWATER TREATMENT SYSTEM.

ALL BUILDINGS SHALL BE CONSTRUCTED AT AN ELEVATION HIGH ENOUGH TO ENSURE GRAVITY FLOW TO THE ONSITE WATER TREATMENT SYSTEM.

NO CELLAR, FOOTING, FLOOR, GARAGE, COOLER OR ROOF DRAINS AND NO SOFTENER BACKWASH SHALL BE DISCHARGED INTO THE ONSITE WASTEWATER TREATMENT SYSTEM.

THERE SHALL BE NO VEHICULAR TRAFFIC OVER THE SEWAGE DISPOSAL SYSTEM. PRIOR TO CONSTRUCTION, THE AREA OF THE SYSTEM SHALL BE STAKED OUT AND FENCED OFF.

SEWAGE DISPOSAL SYSTEMS SHALL NOT BE INSTALLED IN WET OR FROZEN

ALL REQUIRED EROSION & SEDIMENT CONTROL AND STORM WATER POLLUTION PREVENTION WATER QUALITY & QUANTITY CONTROL STRUCTURES, PERMANENT AND TEMPORARY, ARE SHOWN ON THE PLANS.

THE NYSDEC SHALL BE NOTIFIED PRIOR TO THE BACKFILLING OF ANY COMPLETED SDS SO THAT A FINAL INSPECTION MAY BE PERFORMED.

ALL PROPOSED SERVICE LINES ON THIS PLAN ARE ACCESSIBLE FOR INSTALLATION AND PLACEMENT.

NO BUILDINGS SHALL BE OCCUPIED AND THE NEW WATER SYSTEM SHALL NOT BE PLACED INTO SERVICE, UNTIL A "COMPLETED WORKS APPROVAL" IS ISSUED UNDER SECTION 5-1.22(d) OF PART 5 OF THE NEW YORK STATE SANITARY CODE (10NYCRR5)

### **MATERIALS NOTES:**

- ENVELOPE MATERIAL 1.1. WASHED GRAVEL OR CRUSHED STONE CONSISTING OF DURABLE MATERIAL 3/4 TO 1-1/2 INCHES IN DIA.
- 2. PIPE MATERIALS 2.1. DISTRIBUTION BOX TO ABSORPTION FIELD: 4 INCH DIA. SOLID P.V.C. SDR35 PIPE WITH GASKETED JOINTS (IN ACCORDANCE WITH ASTM SPEC. 2665) LAID AT A MINIMUM SLOPE OF 1/16 INCH PER 1
- 2.2. ABSORPTION FIELDS: PVC PERFORATED TIGHT JOINT FITTINGS, INSIDE DIAMETER OF 4 INCHES INSTALLED LEVEL.

3.1. CONCRETE FORT MILLER NO. 2 OR EQUAL WITH LIQUID LEVELERS. (SIZE PER PLAN & DETAILS)

### 4. ACCESS EXTENSION

4.1. 2'-0" I.D. X 4" HIGH, CONCRETE WITH STANDARD LID, FORT MILLER OR EQUAL.

### 5. ENVELOPE COVER

5.1. UNTREATED BUILDING PAPER (TARPAPER, POLYETHYLENE, ETC. ARE NOT ACCEPTABLE.)

### SDS NOTES:

1. THERE SHALL BE NO CHANGES ON THIS PLAN IN ADVANCE OF, OR DURING CONSTRUCTION, WITHOUT PRIOR APPROVAL OF THE DESIGN ENGINEER, AND THE NYSDEC.

2. THERE SHALL BE NO FURTHER SUBDIVISION OF ANY PARCEL SHOWN ON THIS PLAN WITHOUT PRIOR APPROVAL, THIS MAY WARRANT THE SUBMISSION OF ENGINEERING PLANS AND DOCUMENTS.

3. DESIGN, CONSTRUCTION, MATERIAL STANDARDS AND INSPECTION REQUIREMENTS SHALL COMPLY WITH THE LATEST EDITION (S) OF: NEW YORK STATE HEALTH DEPARTMENT PUBLICATION(S). (A) RURAL WATER SUPPLY (B) NYCRR PART 75A WASTE TREATMENT" INDIVIDUAL HOUSEHOLD SYSTEMS.

4. NO EXISTING OR APPROVED PROPOSED, WATER SUPPLY AND/OR SEWERAGE FACILITIES OTHER SIGNIFICANT PHYSICAL FEATURES ARE LOCATED WITHIN 200 FEET OF THE PROJECTS LIMITS, EXCEPT AS SHOWN.

5. NO VEHICULAR PARKING OR TRAFFIC SHALL BE ALLOWED ON ANY PORTIONS OF THE SEWERAGE SYSTEM.

6. INSPECTION OF THE SEWAGE DISPOSAL SYSTEM COMPONENTS SHALL BE CONDUCTED BY THE DESIGN ENGINEER. A) PRIOR TO SITE DEVELOPMENT. B) AFTER PRELIMINARY GRADING C) AFTER PLACEMENT OF FILL MATERIAL BY CONDUCTING A PERCOLATION TEST AND OBSERVING FILL MATERIAL IN PLACE AND GRADED. D) PRIOR TO BACKFILL OF PIPING, TANKS. WELLS. SEALS, ETC. E) AFTER FINAL GRADING.

7. LATERALS SHALL BE ORIENTED ON CONTOURS SUCH THAT THE INVERT ELEVATIONS MATCH EXISTING GRADE ELEVATIONS AS MUCH AS POSSIBLE.

8. CONTRACTOR SHALL VERIFY GRADES SHOWN DURING PRELIMINARY CONSTRUCTION STAKEOUT.

9. PRIOR TO EXCAVATING, CALL DIG SAFELY NEW YORK AT 1-800-962-7962.

10. PIPE LINES INTO THE SEPTIC TANK AND DISTRIBUTION BOX SHALL BE GROUTED ON THE INTERIOR AND EXTERIOR OF THE STRUCTURE.

### **TESTING GRAVITY SEWER SYSTEM:**

- 1. CONTRACTOR SHALL INSPECT AND TEST THE INSTALLATIONS AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION WHEN WORK IS READY FOR TESTING. AFTER ALL TESTS HAVE BEEN PERFORMED, EVIDENCE OF COMPLIANCE SHALL BE FORWARDED TO OWNER/ENGINEER AND THE AUTHORITY HAVING JURISDICTION PRIOR TO ACCEPTANCE.
- 2. IT SHALL BE DEMONSTRATED BY THE CONTRACTOR TO THE NYSDEC FIELD INSPECTOR AND/OR DESIGN PROFESSIONAL THAT THE TANK IS SEALED, WATERTIGHT AND ACCEPTABLE FOR USE. THIS SHALL REQUIRE AT A MINIMUM, FILLING THE TANK WITH WATER TO OBSERVE IF IN FACT IT IS SEALED. WATERTIGHT AND ACCEPTABLE FOR USE. THE TANK MUST MEET ANY LOCAL TESTING REQUIREMENTS, INCLUDING POSSIBLE ELECTRICAL SAFETY STANDARDS.
- 3. THE CONTRACTOR SHALL TEST AND INSPECT FOR ALIGNMENT AND INFILTRATION AND EXFILTRATION OF ALL SANITARY SEWERS AND RELATED UTILITY STRUCTURES. INFILTRATION OR EXFILTRATION OF THE SANITARY SEWER SYSTEM SHALL NOT EXCEED 0.80 GAL/INCH OF INTERNAL PIPE DIAMETER PER 1000' OF PIPELINE PER HOUR WITH A MINIMUM HYDROSTATIC HEAD AT THE TOP OF THE PIPE OF 2 FT, OR AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION. WHEN INFILTRATION OR EXFILTRATION OCCURS IN EXCESS OF ALLOWABLE AMOUNT, DEFECTS SHALL BE LOCATED AND REPAIRED.
- 4. INFILTRATION LEAKAGE TESTS SHALL BE RUN ON EACH SINGLE MANHOLE-TO-MANHOLE SECTION, OR REACH, INDEPENDENTLY OF ALL OTHER MANHOLE-TO-MANHOLE SECTIONS. A PIPELINE SECTION UNDER TEST SHALL INCLUDE ALL PIPE AND FITTINGS BETWEEN THE TWO MANHOLES PLUS THE UPSTREAM MANHOLE.
- 5. EACH MANHOLE-TO-MANHOLE SECTION SHALL BE REJECTED OR ACCEPTED BASED ONLY ON RESULTS OF ITS OWN INDEPENDENT SECTION TEST AND NOT ON RESULTS OF ANY ONE TEST RUN SIMULTANEOUSLY OVER MORE THAN ONE CONSECUTIVE MANHOLE-TO-MANHOLE SECTION. THE ONLY EXCEPTION ALLOWED: ACCEPTING SEVERAL CONSECUTIVE MANHOLE—TO—MANHOLE SECTIONS BASED ON ONE COMBINED INFILTRATION TEST INDICATING ZERO INFILTRATION.
- 6. INFILTRATION TESTS SHALL BE MADE BY INSTALLING A FLOW MEASURING DEVICE IN THE DOWNSTREAM MANHOLE OF SECTION BEING TESTED. TEST DURATION SHALL BE 24 HRS, OR FOR SHORTER PERIOD, PROVIDED A STEADY STATE FLOW CONDITION HAS BEEN ACHIEVED IN THE TEST PERIOD, AND RESULTS PROJECTED TO A 24 HR PERIOD.
- 7. EXFILTRATION TESTS SHALL BE RUN ON EACH SINGLE MANHOLE-TO-MANHOLE SECTION, OR REACH, INDEPENDENTLY OF ALL OTHER MANHOLE-TO-MANHOLE SECTIONS. A PIPELINE SECTION UNDER TEST SHALL INCLUDE ALL PIPE AND FITTINGS BETWEEN THE TWO MAN-HOLES PLUS THE UPSTREAM MANHOLE.
- 8. EXFILTRATION TESTS SHALL BE MADE BY MEASURING THE DROP IN WATER ELEVATION IN THE UPSTREAM MANHOLE 24 HRS AFTER INITIAL WATER LEVEL IS RECORDED. INITIAL WATER LEVEL IN UPSTREAM MANHOLE SHALL BE 2 FEET HIGHER THAN EITHER THE TOP OF PIPE OR GROUNDWATER ELEVATION AT THE DOWNSTREAM MANHOLE. ANY MANHOLE-TO-MANHOLE SECTION UNDERGOING AN EXFILTRATION TEST MUST HAVE THE NEXT ADJACENT SECTIONS, BOTH UPSTREAM AND DOWNSTREAM, DRY AND NOT UNDER TEST. THIS PROCEDURE MINIMIZES HYDROSTATIC PRESSURE PLACED ON STOPPERS, PLUGS, AND END
- 9. LOW PRESSURE AIR TESTING MAY BE ALLOWED IN LIEU OF EXFILTRATION TESTS ONLY. WHEN SO ALLOWED, TEST SHALL BE PERFORMED UNDER DIRECTION OF ENGINEER ACCORDING TO ASTM F1417. LOW PRESSURE AIR TEST IS A COMPARISON OF THE MEASURED TIME NECESSARY FOR ONE (1) PSIG PRESSURE DROP TO OCCUR, IF AT ALL, WITH MINIMUM ALLOWABLE TIME FOR THAT PRESSURE DROP TO OCCUR DETERMINED BY METHODS INDICATED IN ASTM F1417. IF THE ONE (1) PSIG PRESSURE DROP OCCURS FASTER THAN ALLOWABLE TIME, SECTION IS UNACCEPTABLE.
- 10. AN AIR TEST SHALL NOT BE RUN UNTIL SECTION OF LINE TO BE TESTED HAS BEEN CLEANED OF ALL FOREIGN MATERIAL BY FLUSHING AND HAS BEEN VISUALLY INSPECTED AND APPROVED BY THE ENGINEER. CERTAIN PIPE MATERIALS PRODUCE MORE CONSISTENT RESULTS WHEN INTERIOR OF PIPE IS WETTED PRIOR TO TESTING.
- 10. WHERE AIR-TESTING IS TO BE USED FOR LINE ACCEPTANCE. CORROBORATIVE HYDROSTATIC TESTING SHALL BE PERFORMED ON SEWER INSTALLATION OF THE SAME PIPE SIZE, MATERIAL, AND CONDITIONS OF INSTALLATION. SEWER SECTIONS WHICH INDICATE RATES OF AIR LOSS PER UNIT OF SURFACE AREA WHICH MOST NEARLY APPROXIMATE RATE FOR PIPELINE ACCEPTANCE SHOULD BE SELECTED FOR CORROBORATIVE TESTS. AT LEAST 3 SECTIONS ARE TO BE SO TESTED. THE PURPOSE OF THESE CORROBORATIVE TESTS IS TO PERMIT A REASONABLE ASSUMPTION THAT, IF THESE 3 TEST SECTIONS MEET THE HYDROSTATIC TEST. THE BALANCE OF PROJECT ALSO MEETS OR EXCEEDS THESE REQUIREMENTS. IF AIR TEST IS NOT SUPPORTED BY ACCEPTABLE CORROBORATIVE HYDROSTATIC TESTS, COMPLETE HYDRO-STATIC TESTING OF SEWER LINES SHALL BE REQUIRED.
- 11. WHERE FLEXIBLE PIPE IS USED, CONTRACTOR SHALL TEST ALL MAINLINE PIPE FOR MAXIMUM ALLOWABLE DEFLECTION OF 5% OF OUTSIDE DIAMETER. DEFLECTION TESTS SHALL BE PERFORMED USING A CIRCULAR STEEL BALL ON SLED 1/16-INCH IN DIAMETER SMALLER THAN ALLOWABLE INSIDE DIAMETER OF FLEXIBLE PIPE WHEN DEFLECTED A MAXIMUM OF 5% OF OUTSIDE DIAMETER. DEFLECTION TESTING OF ANY PIPE SHALL BE DONE NO SOONER THAN 30 DAYS AFTER DATE OF INSTALLATION OF PIPE SECTION UNLESS WRITTEN EXCEPTION.
- 12. SEWERS SHALL BE LAID WITH STRAIGHT ALIGNMENT BETWEEN MANHOLES. STRAIGHT ALIGNMENT SHALL BE CHECKED EITHER USING A LASER BEAM OR LAMPING. TESTING SHALL COMPLY WITH REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
- 13. MANHOLES, WHICH CANNOT BE PROPERLY AIR TESTED, SHOULD BE VISUALLY INSPECTED AND LEAKAGE-TESTED USING INTERNAL OR EXTERNAL HYDROSTATIC PRESSURE. LEAKAGE TESTING SHALL COMPLY WITH REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
- 14. IN AREAS WHERE CONVENTIONAL TESTING IS IMPRACTICAL (I.E. AREAS DESIGNATED BY ENGINEER WHERE EXISTING SERVICES ARE TIED INTO NEW LINE IMMEDIATELY AND ANY BLOCKAGE COULD RESULT IN HEALTH PROBLEMS) NO LINES SHALL BE BACKFILLED UNTIL EACH PIPE SECTION AND CONNECTION IS INSPECTED AND APPROVED.
- 15. WHERE SEWERS ARE CONSTRUCTED OF PRESSURE-RATED PIPE AND INSTALLED WITH LESS THAN 18 INCHES VERTICAL SEPARATION FROM EXISTING OR PROPOSED WATER MAINS, SEWERS SHALL BE HYDROSTATICALLY TESTED AT 150 PSI TO ASSURE WATER TIGHTNESS. HYDROSTATIC ACCEPTANCE TESTS SHALL BE CONDUCTED AS SPECIFIED FOR TESTING WATER MAINS. EXCEPT THAT TESTING MAY BE PERFORMED WITH THE PIPE SECTION PARTIALLY BACK-FILLED.
- 16. IF THE ALLOWABLE RATE OF INFILTRATION, EXFILTRATION, OR AIR LEAKAGE IS EXCEEDED. THE CONTRACTOR SHALL LOCATE POINTS OF EXCESSIVE LEAKAGE AND SHALL PROMPTLY CORRECT, REPAIR, AND BRING SYSTEM UP TO THE STANDARD. COSTS OF ALL SUCH REPAIRS AND CORRECTIVE MEASURES, INCLUDING COSTS OF REPEATED TESTS. SHALL BE BORN BY CONTRACTOR. THE SEWER LINE SECTION (INCLUDING MANHOLES AND BUILDING SERVICES) UNDER TEST SHALL NOT BE ACCEPTED UNTIL THESE TEST CRITERIA ARE MET.

### TOWN OF NEWBURGH WATER SYSTEM NOTES:

- 1. CONSTRUCTION OF POTABLE WATER UTILITIES AND CONNECTION TO THE TOWN OF NEWBURGH WATER SYSTEM REQUIRES A PERMIT FROM THE TOWN OF NEWBURGH WATER DEPARTMENT, ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE NYSDOH AND THE TOWN OF NEWBURGH.
- 2. ALL WATER SERVICE LINES FOUR (4) INCHES AND LARGER IN DIAMETER SHALL BE CEMENT LINED CLASS 52 DUCTILE IRON PIPE CONFORMING TO ANSI\AWWA C151\A21.51 FOR DUCTILE IRON PIPE, LATEST REVISION. JOINTS SHALL BE EITHER PUSH-ON OR MECHANICAL JOINT AS REQUIRED.
- 3. THRUST RESTRAINT OF THE PIPE SHALL BE THROUGH THE USE OF JOINT RESTRAINT. THRUST BLOCKS ARE NOT ACCEPTABLE. JOINT RESTRAINT SHALL BE THROUGH THE USE OF MECHANICAL JOINT PIPE WITH RETAINER GLANDS. ALL FITTINGS AND VALVES SHALL ALSO BE INSTALLED WITH RETAINER GLANDS FOR JOINT RESTRAINT. RETAINER GLANDS SHALL BE EBBA IRON MEGALUG SERIES 1100 OR APPROVED EQUAL. THE USE OF A MANUFACTURED RESTRAINED JOINT PIPE IS ACCEPTABLE WITH PRIOR APPROVAL OF THE WATER DEPARTMENT.
- 4. ALL FITTINGS SHALL BE CAST IRON OR DUCTILE IRON, MECHANICAL JOINT, CLASS 250 AND CONFORM TO ANSI\AWWA C110\A21.10 FOR DUCTILE AND GRAY IRON FITTINGS OR ANSI\AWWA C153\A21.53 FOR DUCTILE IRON COMPACT FITTINGS, LATEST REVISION
- 5. ALL VALVES 4 TO 12 INCHES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSI\AWWA C509 SUCH AS MUELLER MODEL A-2360-23 OR APPROVED EQUAL. ALL GATE VALVES SHALL OPEN LEFT (COUNTERCLOCKWISE).
- 6. TAPPING SLEEVE SHALL BE MECHANICAL JOINT SUCH AS MUELLER H-615 OR EQUAL. TAPPING VALVES 4 TO 12 INCHES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSI\AWWA C509 SUCH AS MUELLER MODEL T-2360-19 OR APPROVED EQUAL. ALL TAPPING SLEEVES AND VALVES SHALL BE TESTED TO 150 PSI MINIMUM; TESTING OF THE TAPPING SLEEVE AND VALVE MUST BE WITNESSED AND ACCEPTED BY THE TOWN OF NEWBURGH WATER DEPARTMENT PRIOR TO CUTTING INTO THE PIPE
- 7. ALL WATER SERVICE LINES TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING. CORPORATION STOPS SHALL BE MUELLER H-15020N FOR ₹ AND 1 INCH, MUELLER H-15000N OR B-25000N FOR 1 1/2 AND 2 INCH SIZES. CURB VALVES SHALL BE MUELLER H-1502-2N FOR ₹ AND 1 INCH AND MUELLER B-25204N FOR 1 1/2 AND 2 INCH SIZES. CURB BOXES SHALL BE MUELLER H-10314N FOR ₹ AND 1 INCH AND MUELLER H-10310N FOR 1 1/2 AND 2 INCH SIZES.
- 8. ALL PIPE INSTALLATION SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF NEWBURGH WATER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AS REQUIRED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT.
- 9. THE WATER MAIN SHALL BE TESTED, DISINFECTED AND FLUSHED IN ACCORDANCE WITH THE TOWN OF NEWBURGH REQUIREMENTS. ALL TESTING, DISINFECTION AND FLUSHING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT. PRIOR TO PUTTING THE WATER MAIN IN SERVICE SATISFACTORY SANITARY RESULTS FROM A CERTIFIED LAB MUST BE SUBMITTED TO THE TOWN OF NEWBURGH WATER DEPARTMENT. THE TEST SAMPLES MUST BE COLLECTED BY A REPRESENTATIVE OF THE TESTING LABORATORY AND WITNESSED BY THE WATER DEPARTMENT.
- 10. THE FINAL LAYOUT OF THE PROPOSED WATER AND/OR SEWER CONNECTION, INCLUDING ALL MATERIALS, SIZE AND LOCATION OF SERVICE AND ALL APPURTENANCES, IS SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWN OF NEWBURGH WATER AND/OR SEWER DEPARTMENT. NO PERMITS SHALL BE ISSUED FOR A WATER AND/OR SEWER CONNECTION UNTIL A FINAL LAYOUT IS APPROVED BY THE RESPECTIVE DEPARTMENT.

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**NOT FOR REVIEW AND** 

31 MAY 23 SUBMISSION TO TOWN 28 APR 23 SUBMISSION TO TOWN 15 FEB 23 SUBMISSION TO TOWN 11 NOV 22 SUBMISSION TO TOWN

16 SEP 22 CONCEPT FOR REVIEW ARK: DATE: DESCRIPTION:

20 OCT 22 GPI CONCEPT FOR REVIEW

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