Downey Energy Company Liquid Propane Storage Facility

199 Old Route 9
Town of Wappinger, Dutchess Co., New York

Draft Environmental Impact Statement (DEIS)

Appendix Volume Two
Appendices D - I

LIST OF APPENDICES

Appendix D

Site Plan Package

PROPOSED LIQUID PROPANE STORAGE FACILITY

FOR

DOWNEY ENERGY COMPANY

TOWN OF WAPPINGER, DUTCHESS COUNTY, NY

GENERAL NOTES

1. NOTHING SHALL BE PLACED, PLANTED, SET OR PUT WITHIN AN AREA OF AN EASEMENT THAT WOULD ADVERSELY AFFECT THE FUNCTION OF THE EASEMENT.
2. THE CONTRACTOR SHALL NOTIFY ALL APPROPRIATE UTILITIES AT LEAST 72 HOURS PRIOR TO THE START OF ANY CONSTRUCTION. ALL UTILITIES HAVE BEEN IDENTIFIED BASED ON THE BEST AVAILABLE INFORMATION AND LISTED ON THESE PLANS IN ACCORDANCE WITH ACT 187 REQUIREMENTS. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF EXISTING UTILITIES AND ALL EFFORTS SHALL BE UNDERTAKEN TO PROTECT EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE TO UTILITIES BY THE CONTRACTOR SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. RESTORATION OF ALL EXISTING SURFACE IMPROVEMENTS DAMAGED OR ALTERED DURING CONSTRUCTION, INCLUDING LANDSCAPING, SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL MAKE PROVISIONS FOR MAINTAINING THE SAFE FLOW OF TRAFFIC DURING CONSTRUCTION WITHIN THE SITE AND THE EXISTING ROAD RIGHTS-OF-WAY WHILE ENTERING AND LEAVING THE SITE.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS RELATIVE TO THE CONSTRUCTION PROPOSED ON THIS PLAN.
5. ALL STORM SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS AND TO THE STANDARDS OF THE MUNICIPAL ORDINANCES.
6. THERE SHALL BE NO CHANGES OR DEVIATION FROM THESE PLANS UNLESS APPROVED BY THE ENGINEER. SUCH PLAN CHANGES, SHOULD THEY BECOME NECESSARY, ARE SUBJECT TO APPROVAL BY THE TOWN OF WAPPINGERS FALLS ENGINEER.
7. THE CONTRACTOR SHALL INSPECT EXISTING SITE/PROJECT AREA CONDITIONS AND VERIFY ALL QUANTITIES AND MATERIALS PRIOR TO THE START OF CONSTRUCTION.

SITE INFORMATION

TAX MAP NUMBER	6156-02-763656
TOTAL AREA	6.29± ACRES (273,992 SF)
LAND OWNER / DEVELOPER	DOWNEY ENERGY PO BOX 306 COLD SPRING, NY 10516
SITE ADDRESS:	199 OLD ROUTE 9 TOWN OF WAPPINGER DUTCHESS COUNTY, NY
EXISTING USE	VACANT LAND
PROPOSED USE	LIQUID PROPANE STORAGE FACILITY

REFERENCE MAPS

1. EXISTING CONDITIONS SURVEY PREPARED BY ROBERT OICLE, LS, DATED JUNE 6, 2019.

BULK TABLE REQUIREMENTS

HB – HIGHWAY BUSINESS ZONING DISTRICT

USE: LIQUID PROPANE STORAGE	REQUIRED	PROVIDED
MINIMUM LOT AREA	5 ACRES	6.29 ACRES
MINIMUM LOT WIDTH	150 FT	220 FT
MINIMUM LOT DEPTH	200 FT	616 FT
MINIMUM LOT FRONTAGE	150 FT	220 FT
MINIMUM FRONT YARD	100 FT (BLDG)/100 FT (TANKS)	121 FT (BLDG) / 219 FT (TANKS)
MINIMUM REAR YARD	30 FT (BLDG)/75 FT (TANKS)	480 FT (BLDG) / 386 FT (TANKS)
MINIMUM SIDE YARD	10 FT (BLDG)/75 FT (TANKS)	92 FT (BLDG) / 79 FT (TANKS)
MAXIMUM BUILDING HEIGHT	35 FT/2.5 STYS.	25 FT/2 STORIES
MAXIMUM BUILDING COVERAGE	25% / 68,498 SF	1800 SF BLDG / 1,430 SF TANKS / 3,230 SF TOTAL (1.18%)
MAXIMUM IMPERVIOUS	75% / 205,494 SF	19,565 SF (7.14%)
MINIMUM SPACE BETWEEN TANKS	10 FT	10 FT

LIST OF DRAWINGS

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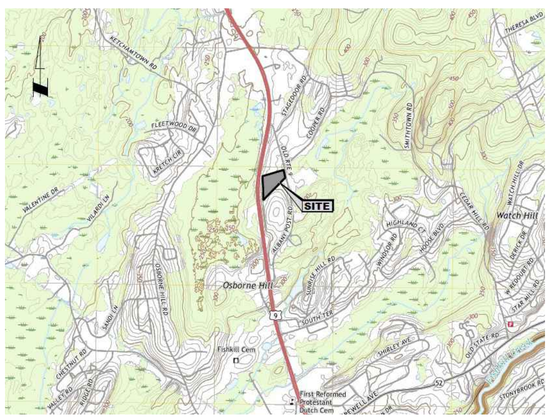
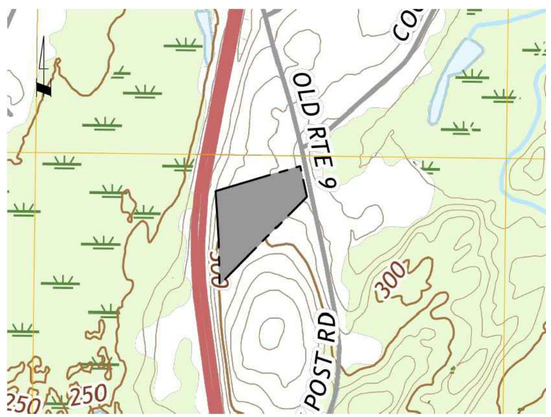
1-800-962-7962
CALL BEFORE YOU DIG , DRILL OR BLAST
NO LESS THAN TWO WORKING DAYS NOTICE
IT'S THE LAW !

(x) PREVIOUS REVISIONS



SITE LOCATION MAP

SOURCE: HOPEWELL JUNCTION USGS QUAD SCALE: 1" = 2000'



AREA MAP

SCALE: 1" = 500'

TOWN OF WAPPINGER
PLANNING BOARD SITE PLAN APPROVAL
WAPPINGERS FALLS, NEW YORK

THE SITE PLAN FOR THE PROPERTY AS DEPICTED HEREON WAS APPROVED BY THE TOWN OF WAPPINGER PLANNING BOARD AT A MEETING HELD ON _____, AND THE CONDITIONS OF THE SITE PLAN APPROVAL HAVE BEEN SATISFIED OR ARRANGEMENTS HAVE BEEN MADE TO ENSURE THE COMPLETION OF ANY OUTSTANDING OR INCOMPLETE CONDITIONS.

CHAIRMAN _____ DATE _____

OWNER / APPLICANT SIGNATURES

THE UNDERSIGNED APPLICANT(S) FOR THE PROPERTY AND THE UNDERSIGNED OWNER(S) OF THE PROPERTY SHOWN HEREON, CERTIFY THAT THEY ARE FAMILIAR WITH THIS MAP, ITS NOTES AND ITS CONTENTS AS STATED HEREON INCLUDING ALL CONDITIONS OF APPROVAL. THE APPLICANT(S) AND OWNER(S) UNDERSTAND THEIR OBLIGATION TO THE TOWN TO KEEP THIS PREMISES AS PER PLAN APPROVAL BY THE TOWN PLANNING BOARD UNTIL A NEW OR REVISED PLAN FOR DEVELOPMENT OR USE OF THE SITE IS APPROVED BY THE PLANNING BOARD. THE APPLICANT(S) AND OWNER(S) UNDERSTAND THEIR OBLIGATION TO THE TOWN NOT TO OCCUPY THE PREMISES BEFORE A CERTIFICATE OF OCCUPANCY (CO) IS ISSUED BY THE TOWN FOR THE OCCUPANCY AS APPROVED HEREON.

OWNER _____ DATE _____

APPLICANT _____

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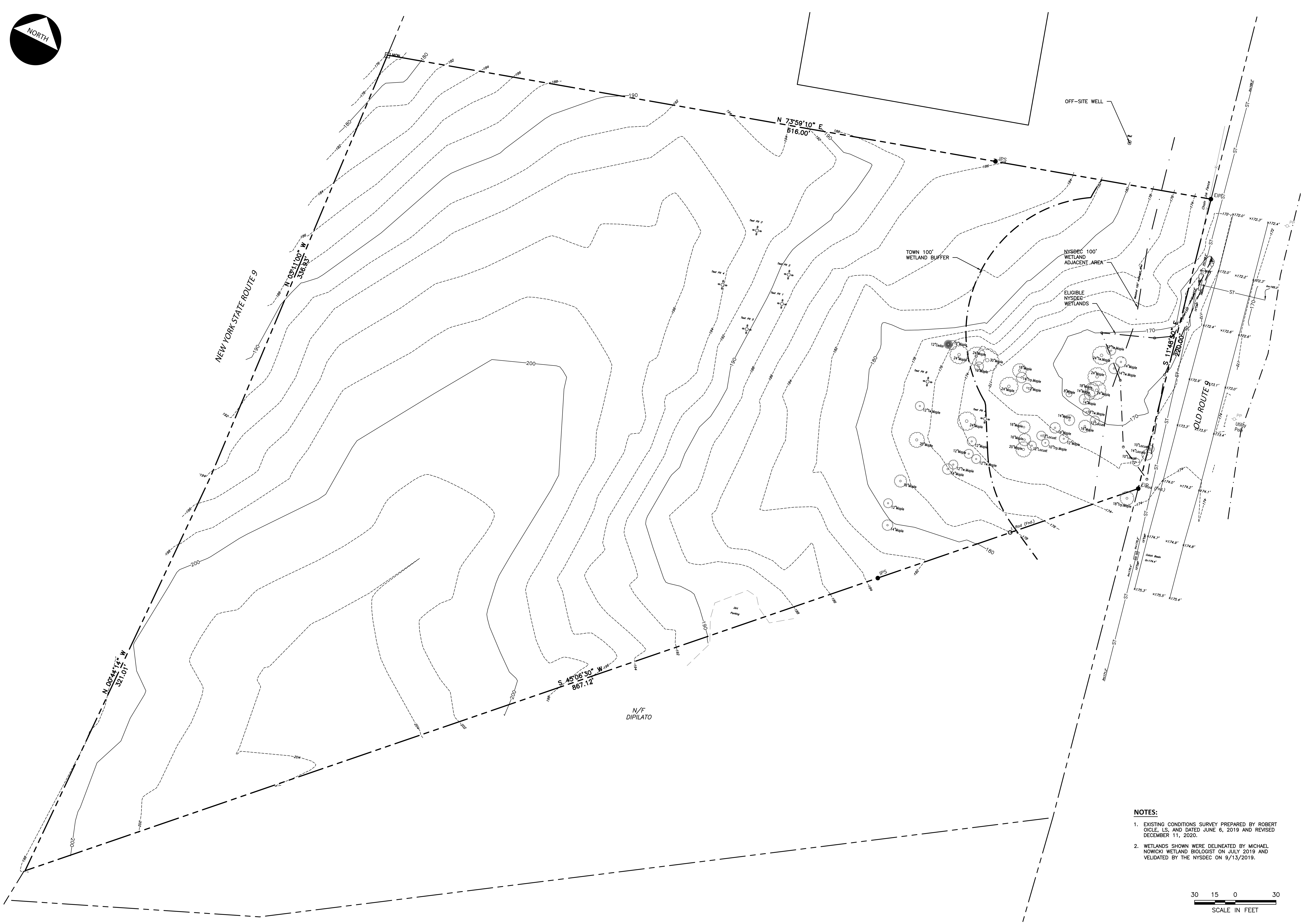
PROPOSED LIQUID PROPANE STORAGE FACILITY
DOWNEY ENERGY
199 OLD ROUTE 9
TOWN OF WAPPINGERR. N.Y.

COVER SHEET

DATE	5/1/2023
SCALE	N/A
DRAWN	MO
JOB	19-013
SHEET	G-1



NOTES:

1. EXISTING CONDITIONS SURVEY PREPARED BY ROBERT OICLE, LS, AND DATED JUNE 6, 2019 AND REVISED DECEMBER 11, 2020.
2. WETLANDS SHOWN WERE DELINEATED BY MICHAEL NOWICKI WETLAND BIOLOGIST ON JULY 2019 AND VELIDATED BY THE NYSDEC ON 9/13/2019.

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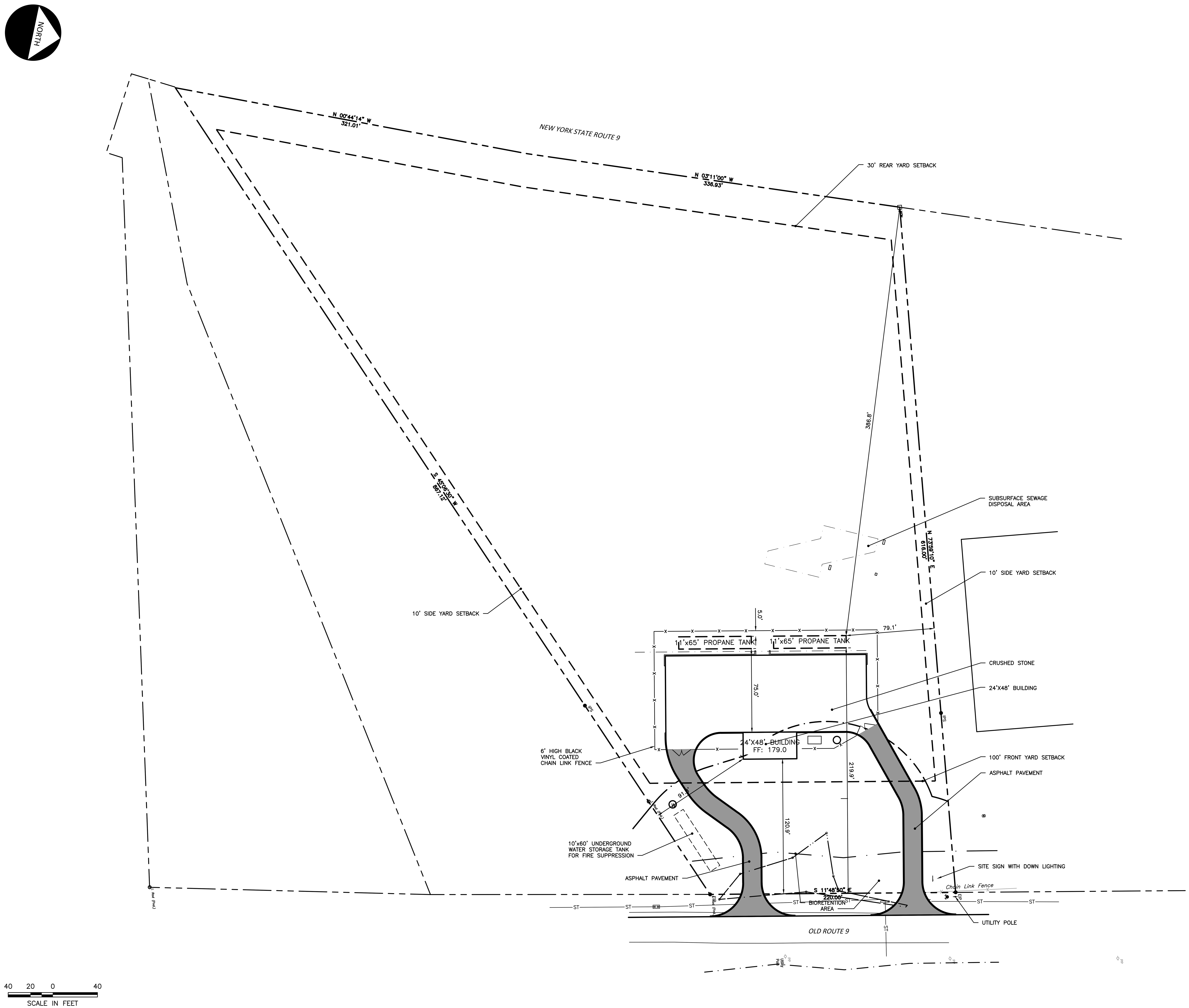
PROPOSED LIQUID PROPANE STORAGE FACILITY

DOWNEY ENERGY

199 OLD ROUTE 9 TOWN OF WAPPINGERR. N.Y.

EXISTING CONDITIONS PLAN

DATE	5/1/2023
SCALE	1" = 30'
DRAWN	MO
JOB	19-013
SHEET	S-1


NORTH
N 00°44'14" W
321.01'
NEW YORK STATE ROUTE 9
N 03°11'00" W
336.93'
30' REAR YARD SETBACK
386.8'
S 43°06'30" W
867.12'
SUBSURFACE SEWAGE
DISPOSAL AREA
N 73°51'10" E
616.00'
10' SIDE YARD SETBACK
10' SIDE YARD SETBACK
5.0'
79.1'
11'x65' PROPANE TANK
11'x65' PROPANE TANK
CRUSHED STONE
75.0'
24'X48' BUILDING
24'X48' BUILDING
FF: 179.0
6' HIGH BLACK
VINYL COATED
CHAIN LINK FENCE
100' FRONT YARD SETBACK
ASPHALT PAVEMENT
219.9'
120.9'
91.
10'x60' UNDERGROUND
WATER STORAGE TANK
FOR FIRE SUPPRESSION
SITE SIGN WITH DOWN LIGHTING
ASPHALT PAVEMENT
Chain Link Fence
S 11°48'30" E
220.00'
BIORETENTION
AREA
UTILITY POLE
OLD ROUTE 9
ST
40 20 0 40
SCALE IN FEET

NOTES:

1. REFER TO SHEET S-3 FOR DETAILED SITE PLAN.
2. SIGHT DISTANCE: SLSD RIGHT & LEFT; SSD: TSD > 500 LF BOTH DRIVEWAYS.

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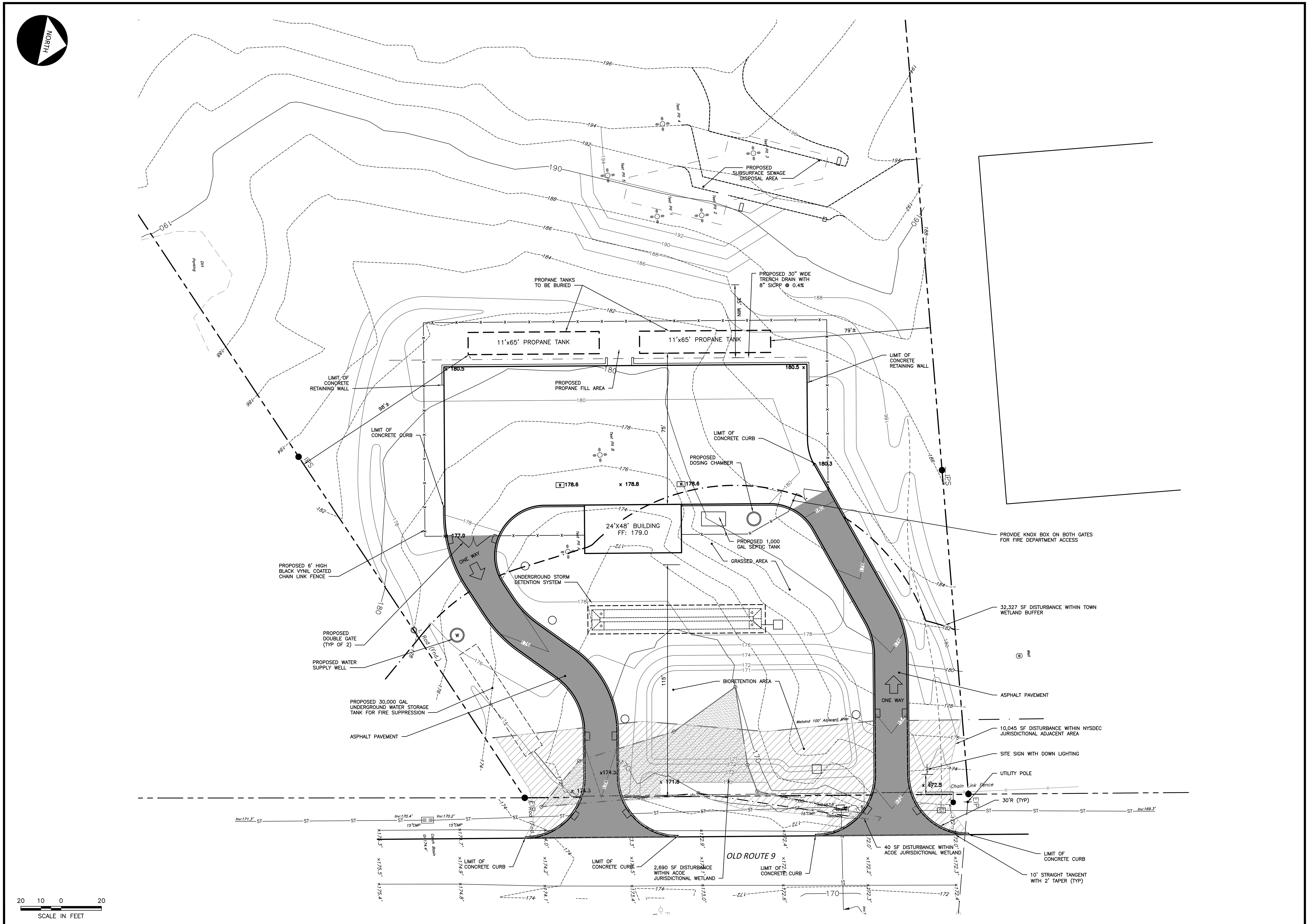
PROPOSED LIQUID PROPANE STORAGE FACILITY
DOWNEY ENERGY
199 OLD ROUTE 9 TOWN OF WAPPINGERR. N.Y.

SITE PLAN

DATE	5/1/2023
SCALE	1" = 40'
DRAWN	MO
JOB	19-013
SHEET	S-2


NORTH
PROPANE TANKS TO BE BURIED
11'x65' PROPANE TANK
11'x65' PROPANE TANK
PROPOSED SUBSURFACE SEWAGE DISPOSAL AREA
PROPOSED 30" WIDE TRENCH DRAIN WITH 8" SICPP @ 0.4%
LIMIT OF CONCRETE RETAINING WALL
LIMIT OF CONCRETE RETAINING WALL
PROPOSED PROPANE FILL AREA
LIMIT OF CONCRETE CURB
LIMIT OF CONCRETE CURB
PROPOSED DOSING CHAMBER
24'X48' BUILDING FF: 179.0
PROPOSED 1,000 GAL SEPTIC TANK
GRASSED AREA
PROVIDE KNOX BOX ON BOTH GATES FOR FIRE DEPARTMENT ACCESS
PROPOSED 6' HIGH BLACK VYNIL COATED CHAIN LINK FENCE
UNDERGROUND STORM DETENTION SYSTEM
ONE WAY
ONE WAY
32,327 SF DISTURBANCE WITHIN TOWN WETLAND BUFFER
PROPOSED DOUBLE GATE (TYP OF 2)
PROPOSED WATER SUPPLY WELL
BIORETENTION AREA
ASPHALT PAVEMENT
PROPOSED 30,000 GAL UNDERGROUND WATER STORAGE TANK FOR FIRE SUPPRESSION
ASPHALT PAVEMENT
10,045 SF DISTURBANCE WITHIN NYSDEC JURISDICTIONAL ADJACENT AREA
SITE SIGN WITH DOWN LIGHTING
UTILITY POLE
Chain Link Fence
30'R (TYP)
OLD ROUTE 9
LIMIT OF CONCRETE CURB
LIMIT OF CONCRETE CURB
2,690 SF DISTURBANCE WITHIN ACOE JURISDICTIONAL WETLAND
LIMIT OF CONCRETE CURB
40 SF DISTURBANCE WITHIN ACOE JURISDICTIONAL WETLAND
LIMIT OF CONCRETE CURB
10' STRAIGHT TANGENT WITH 2' TAPER (TYP)
20 10 0 20
SCALE IN FEET

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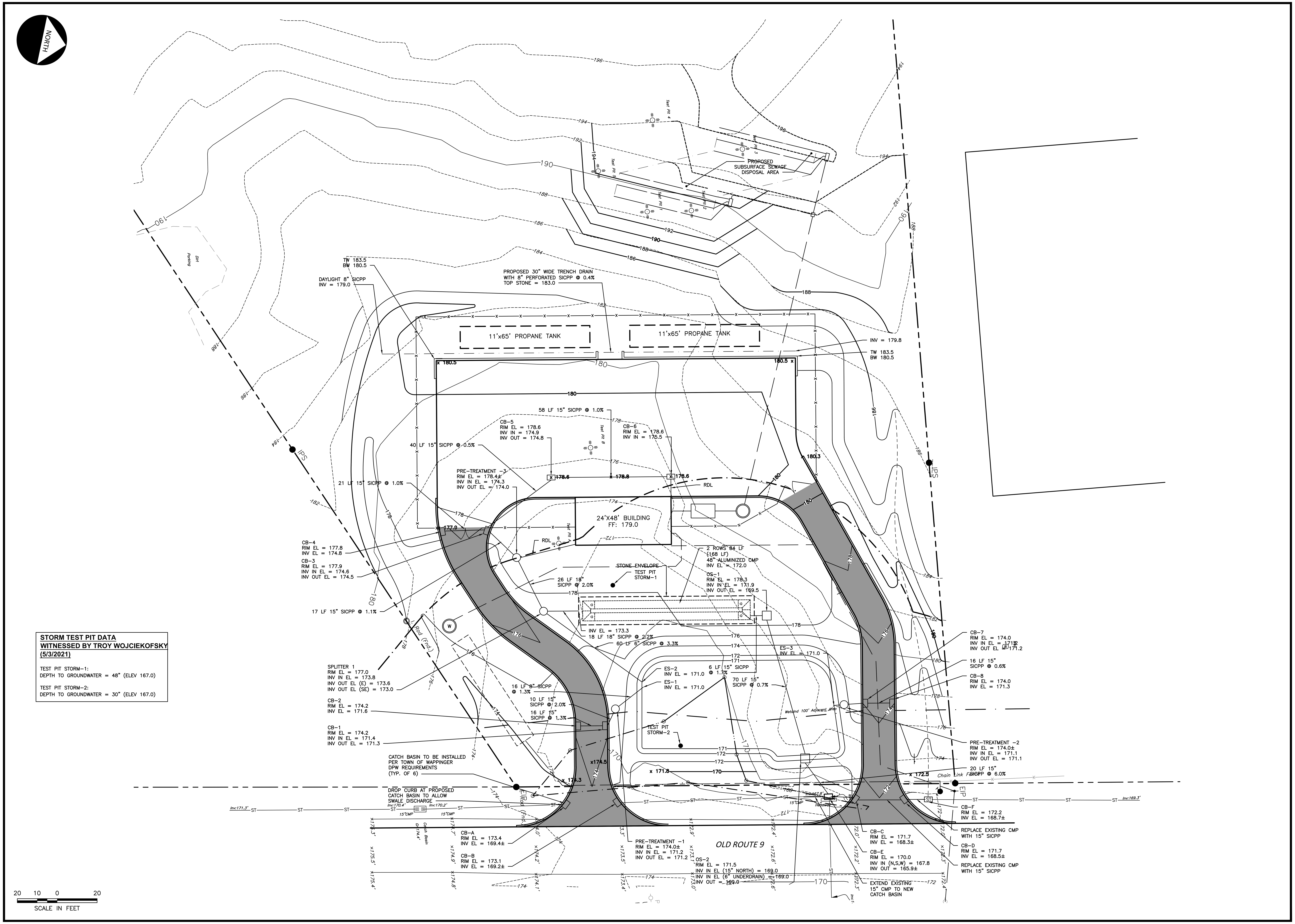
PROPOSED LIQUID PROPANE STORAGE FACILITY
DOWNEY ENERGY
199 OLD ROUTE 9 TOWN OF WAPPINGERR, N.Y.

DETAILED SITE PLAN

DATE	5/1/2023
SCALE	1" = 20'
DRAWN	MO
JOB	19-013
SHEET	S-3


NORTH
STORM TEST PIT DATA
WITNESSED BY TROY WOJCIEKOFSKY
(5/3/2021)
TEST PIT STORM-1:
DEPTH TO GROUNDWATER = 48" (ELEV 167.0)
TEST PIT STORM-2:
DEPTH TO GROUNDWATER = 30" (ELEV 167.0)
PROPOSED SUBSURFACE SEWAGE DISPOSAL AREA
TW 183.5
BW 180.5
DAYLIGHT 8" SICPP
INV = 179.0
PROPOSED 30" WIDE TRENCH DRAIN WITH 8" PERFORATED SICPP @ 0.4%
TOP STONE = 183.0
11'x65' PROPANE TANK
11'x65' PROPANE TANK
INV = 179.8
TW 183.5
BW 180.5
58 LF 15" SICPP @ 1.0%
CB-5
RIM EL = 178.6
INV IN = 174.9
INV OUT = 174.8
CB-6
RIM EL = 178.6
INV IN = 175.5
40 LF 15" SICPP @ 0.5%
PRE-TREATMENT -3
RIM EL = 178.4±
INV IN EL = 174.3
INV OUT EL = 174.0
21 LF 15" SICPP @ 1.0%
RDL
24'X48' BUILDING
FF: 179.0
CB-4
RIM EL = 177.8
INV EL = 174.8
CB-3
RIM EL = 177.9
INV IN EL = 174.6
INV OUT EL = 174.5
STONE ENVELOPE
TEST PIT STORM-1
2 ROWS 84 LF (168 LF) 48" ALUMINIZED CMP
INV EL = 172.0
OS-1
RIM EL = 178.3
INV IN EL = 171.9
INV OUT EL = 169.5
26 LF 18" SICPP @ 2.0%
17 LF 15" SICPP @ 1.1%
INV EL = 173.3
18 LF 18" SICPP @ 2.2%
60 LF 6" SICPP @ 3.3%
ES-3
INV EL = 171.0
ES-2
INV EL = 171.0
ES-1
INV EL = 171.0
6 LF 15" SICPP @ 1.7%
70 LF 15" SICPP @ 0.7%
SPLITTER 1
RIM EL = 177.0
INV IN EL = 173.8
INV OUT EL (E) = 173.6
INV OUT EL (SE) = 173.0
16 LF 8" SICPP @ 1.3%
10 LF 15" SICPP @ 2.0%
16 LF 15" SICPP @ 1.3%
CB-2
RIM EL = 174.2
INV EL = 171.6
CB-1
RIM EL = 174.2
INV IN EL = 171.4
INV OUT EL = 171.3
TEST PIT STORM-2
CATCH BASIN TO BE INSTALLED PER TOWN OF WAPPINGER DPW REQUIREMENTS (TYP. OF 6)
DROP CURB AT PROPOSED CATCH BASIN TO ALLOW SWALE DISCHARGE
CB-7
RIM EL = 174.0
INV IN EL = 171.2
INV OUT EL = 171.2
16 LF 15" SICPP @ 0.6%
CB-8
RIM EL = 174.0
INV EL = 171.3
PRE-TREATMENT -2
RIM EL = 174.0±
INV IN EL = 171.1
INV OUT EL = 171.1
20 LF 15" SICPP @ 6.0%
Chain Link Fence
CB-F
RIM EL = 172.2
INV EL = 168.7±
REPLACE EXISTING CMP WITH 15" SICPP
CB-D
RIM EL = 171.7
INV EL = 168.5±
REPLACE EXISTING CMP WITH 15" SICPP
CB-C
RIM EL = 171.7
INV EL = 168.3±
CB-E
RIM EL = 170.0
INV IN (N,S,W) = 167.8
INV OUT = 165.9±
EXTEND EXISTING 15" CMP TO NEW CATCH BASIN
CB-A
RIM EL = 173.4
INV EL = 169.4±
CB-B
RIM EL = 173.1
INV EL = 169.2±
PRE-TREATMENT -1
RIM EL = 174.0±
INV IN EL = 171.2
INV OUT EL = 171.2
OS-2
RIM EL = 171.5
INV IN EL (15" NORTH) = 169.0
INV IN EL (6" UNDERDRAIN) = 169.0
INV OUT = 169.0
OLD ROUTE 9
Wetland 100' Adjacent Area
20 10 0 20
SCALE IN FEET

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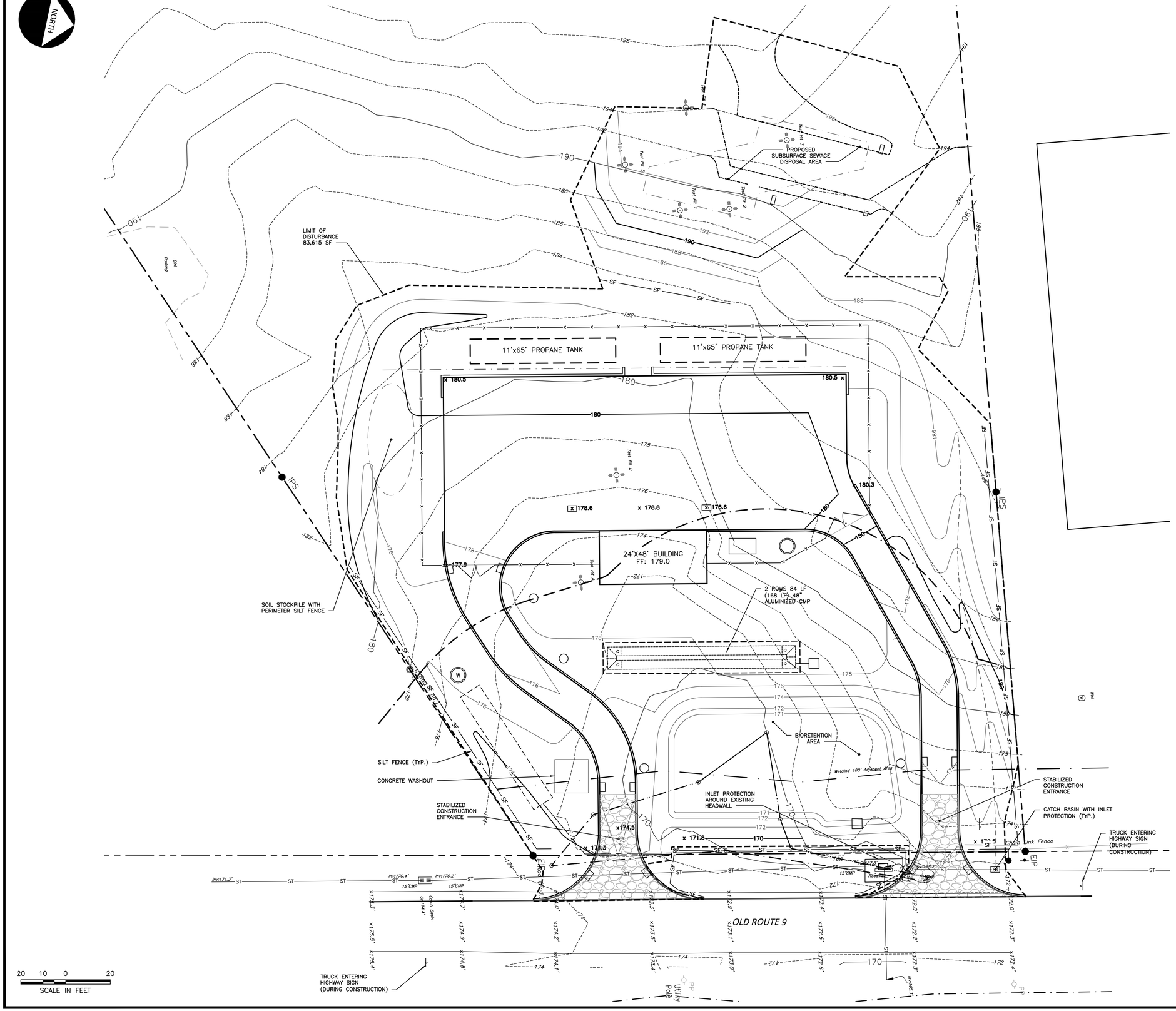
DOWNEY ENERGY
199 OLD ROUTE 9 TOWN OF WAPPINGERR, N.Y.

GRADING & DRAINAGE PLAN

DATE	5/1/2023
SCALE	1" = 20'
DRAWN	MO
JOB	19-013
SHEET	S-4



EROSION & SEDIMENT CONTROL NOTES

EROSION AND SEDIMENT CONTROL MEASURES

1. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE IN STRICT COMPLIANCE WITH "NEW YORK" STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL" NOVEMBER 2016.
2. DAMAGE TO SURFACE WATERS RESULTING FROM EROSION AND SEDIMENTATION SHALL BE MINIMIZED BY STABILIZING DISTURBED AREAS AND BY REMOVING SEDIMENT FROM CONSTRUCTION SITE DISCHARGES.
3. AS MUCH AS IS PRACTICAL, EXISTING VEGETATION SHALL BE PRESERVED. FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES IN ANY PORTION OF THE SITE, PERMANENT VEGETATION SHALL BE ESTABLISHED ON ALL EXPOSED SOILS.
4. SITE PREPARATION ACTIVITIES SHALL BE PLANNED TO MINIMIZE THE SCOPE AND DURATION OF SOIL DISRUPTION.
5. PERMANENT TRAFFIC CORRIDORS SHALL BE ESTABLISHED AND "ROUTES OF CONVENIENCE" SHALL BE AVOIDED. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL POINTS OF ENTRY ONTO THE PROJECT SITE.
6. SEEDED AREAS TO BE MULCHED WITH STRAW OR HAY MULCH IN ACCORDANCE WITH VEGETATIVE COVER SPECIFICATIONS.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES THROUGHOUT THE COURSE OF CONSTRUCTION.
8. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST BY SPRINKLING EXPOSED SOIL AREAS PERIODICALLY WITH WATER AS REQUIRED. THE CONTRACTOR TO SUPPLY ALL EQUIPMENT AND WATER.
9. WHEN ALL DISTURBED AREAS ARE STABLE, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED.

MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES

A. PERMANENT AND TEMPORARY VEGETATION:
INSPECT ALL AREAS THAT HAVE RECEIVED VEGETATION EVERY SEVEN DAYS. ALL AREAS DAMAGED BY EROSION OR WHERE SEED HAS NOT ESTABLISHED SHALL BE REPAIRED AND RESTABILIZED IMMEDIATELY.

B. STABILIZED CONSTRUCTION ENTRANCE:
INSPECT THE ENTRANCE PAD EVERY SEVEN DAYS. CHECK FOR MUD, SEDIMENT BUILD-UP AND PAD INTEGRITY. MAKE DAILY INSPECTIONS DURING WET WEATHER. RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL. WASH AND REPLACE STONE AS NEEDED. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF SITE BY VEHICLES. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. REMOVE TEMPORARY CONSTRUCTION ENTRANCE AS SOON AS THEY ARE NO LONGER NEEDED TO PROVIDE ACCESS TO THE SITE.

C. SILT FENCE:
INSPECT FOR DAMAGE EVERY SEVEN DAYS. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE FENCE BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO 1/3 THE HEIGHT OF THE FENCE. IF FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF FENCE IMMEDIATELY.

D. SOIL STOCKPILE:
INSPECT SEDIMENT CONTROL BARRIERS (SILT FENCE OR HAY BALE) AND VEGETATION FOR DAMAGE EVERY SEVEN DAYS. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE SEDIMENT CONTROL BARRIER BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO 1 THE HEIGHT OF THE SEDIMENT CONTROL BARRIER. IF SEDIMENT CONTROL BARRIER TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF SEDIMENT CONTROL BARRIER IMMEDIATELY. REVEGETATE DISTURBED AREA TO STABILIZE SOIL STOCKPILE. REMOVE THE SEDIMENT CONTROL BARRIER WHEN THE SOIL STOCKPILE HAS BEEN REMOVED.

E. INLET PROTECTION:
INSPECT INLET PROTECTION FOR DAMAGE EVERY SEVEN DAYS. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT AS NECESSARY TO PROVIDE FOR ADEQUATE STORAGE VOLUME FOR SUBSEQUENT RAINS.

F. DUST CONTROL:
SCHEDULE CONSTRUCTION OPERATIONS TO MINIMIZE THE AMOPUNT OF DISTURBED AREAS AT ANY ONE TIME DURING THE COURSE OF WORK. APPLY TEMPORARY SOIL STABILIZATION PRACTICES SUCH AS MULCHING, SEEDING, AND SPRAYING (WATER). STRUTURAL MEASURES (MULCH, SEEDING) SHALL BE INSTALLED IN DISTURBED AREAS BEFORE SIGNIFICANT BLOWING PROBLEMS DEVELOP. WATER SHALL BE SPRAYED AS NEEDED. REPEAT AS NEEDED, BUT AVOID EXCESSIVE SPRAYING, WHICH COULD CREATE RUNOFF AND EROSION PROBLEMS.

CONSTRUCTION SEQUENCING

1. ESTABLISH A TEMPORARY STABILIZED CONSTRUCTION ENTRANCE.
2. INSTALL SILT FENCE AS SHOWN ON THIS PLAN. INSTALL CONSTRUCTION FENCE TO PROTECT EXISTING FACILITIES AND OPERATIONS AS SHOWN ON THE PLANS AND/OR AS DIRECTED BY THE TOWN.
3. NOTIFY DESIGN ENGINEER FOR INSPECTION OF EROSION CONTROL MEASURES FOR APPROVAL BEFORE CONTINUING WITH EARTH DISTURBING ACTIVITIES.
4. CLEAR THE MINIMUM AMOUNT OF BRUSH AND TREES WITHIN THE DEVELOPMENT AREA THAT WILL ALLOW PERFORMANCE OF THE WORK.
5. CONSTRUCT TEMPORARY MATERIAL STORAGE AND STOCKPILE AREAS.
6. AS CONCRETE IS DELIVERED AND PLACED ON SITE, A CENTRALLY LOCATED CONCRETE WASHOUT AREA APPROXIMATELY 15-FEET SQUARE AND 2.5-DFEET DEEP SHALL BE PROVIDED. THIS WASHOUT AREA SHALL BE ENCLOSED BY SILT FENCE, LOCATED NECT TO A PAVED ROAD AND SITUATED A MINIMUM OF 50-FEET FROM A WATERCOURSE. IF REQUIRED, TEMPORARY DIVERSION DIKES SHALL BE INSTALLED AROUND WASHOUT AREA TO PREVENT STORMWATER FROM ENTERING WASHOUT LOCATION.
7. WASTE MATERIAL FROM CONCRETE WASHOUT OPERATIONS SHALL BE PERIODICALLY REMOVED AND LEGALLY DISPOSED OF WHEN TWO-THIRDS OF THE WASHOUT STORAGE AREA HAS ACCUMULATED WITH MATERIAL. AT THE END OF THE CONSTRUCTION, ALL MATERIAL FROM THE WASHOUT AREA SHALL BE REMOVED AND DISPOSED OF.
8. STABILIZE SOIL STOCKPILE AREA WITH SEED AND MULCH.
9. EXCAVATE BIORETENTION AREAS AS TEMPORARY SEDIMENT TRAPS AS NECESSARY; CLEAN OUT BASIN AREAS AND CONSTRUCT BIORETENTION AREAS AFTER TRIBUTARY AREAS ARE STABILIZED.
10. PERFORM REQUIRED GRADING AND EARTHWORK (CUT AND FILL) OPERATIONS INCLUDING STORMWATER MANAGEMENT BASIN.
11. PROTECT ALL CATCH BASINS WITHIN THE RAIN GARDEN AND BIORETENTION AREAS WITH INLET PROTECTION.
12. INSTALL UTILITIES, PAVING, SIDEWALKS AND OTHER SITE IMPROVEMENTS. DO NOT CONNECT NEW STORMWATER UTILITIES TO THE BIORETENTION AREA UNTIL TRIBUTARY AREAS ARE STABILIZED AND/OR INLETS ARE PROTECTED FROM SEDIMENTATION.
13. STABILIZED DISTURBED AREAS WITH SEED AND MULCH OUTSIDE AREAS TO RECEIVE PAVEMENT.
14. REMOVE SILT FENCE, TEMPORARY CONSTRUCTION ENTRANCE AND INLET PROTECTION WHEN A STABILIZING PERMANENT STAND OF VEGETATION IS ACHIEVED.

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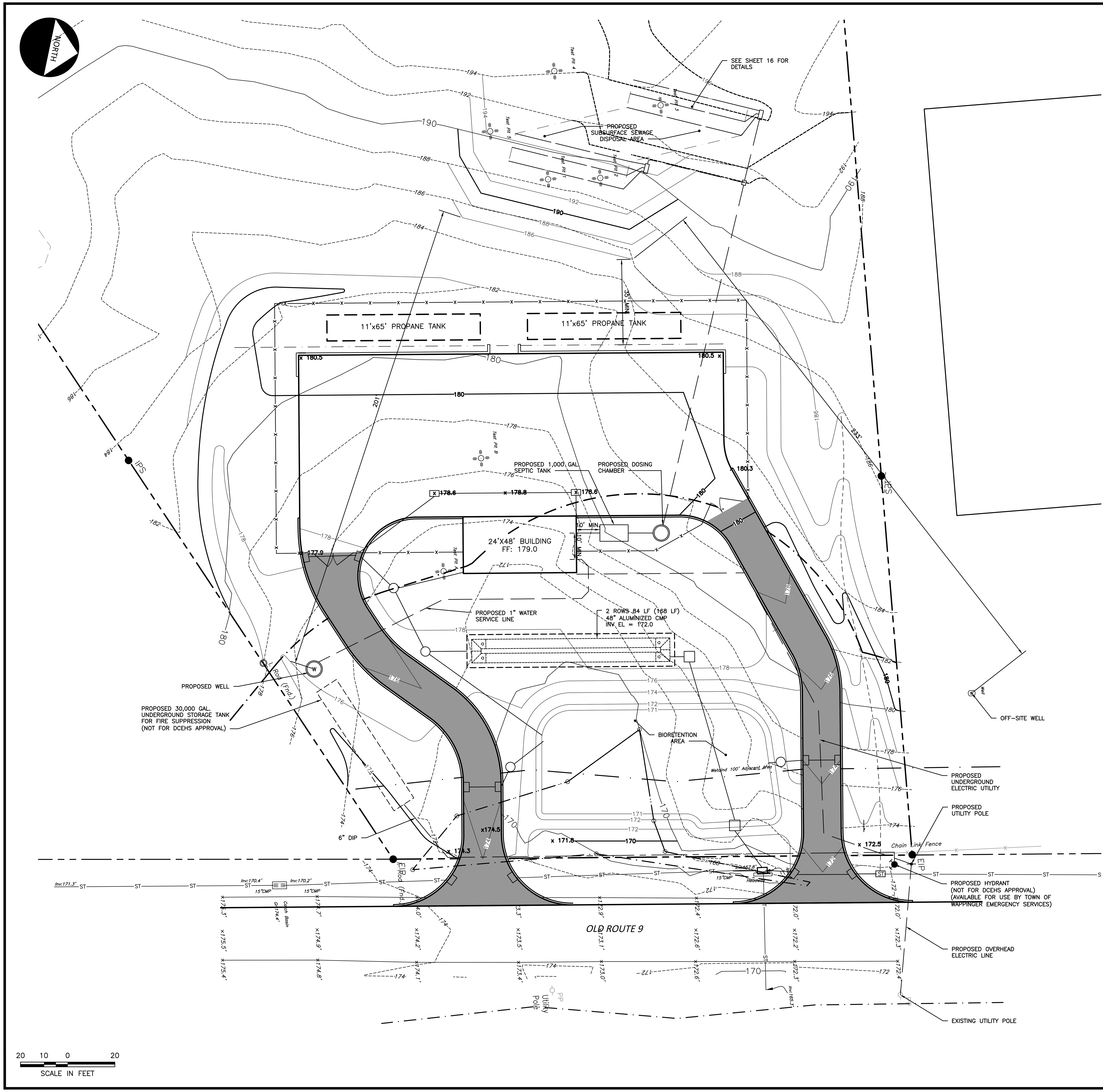
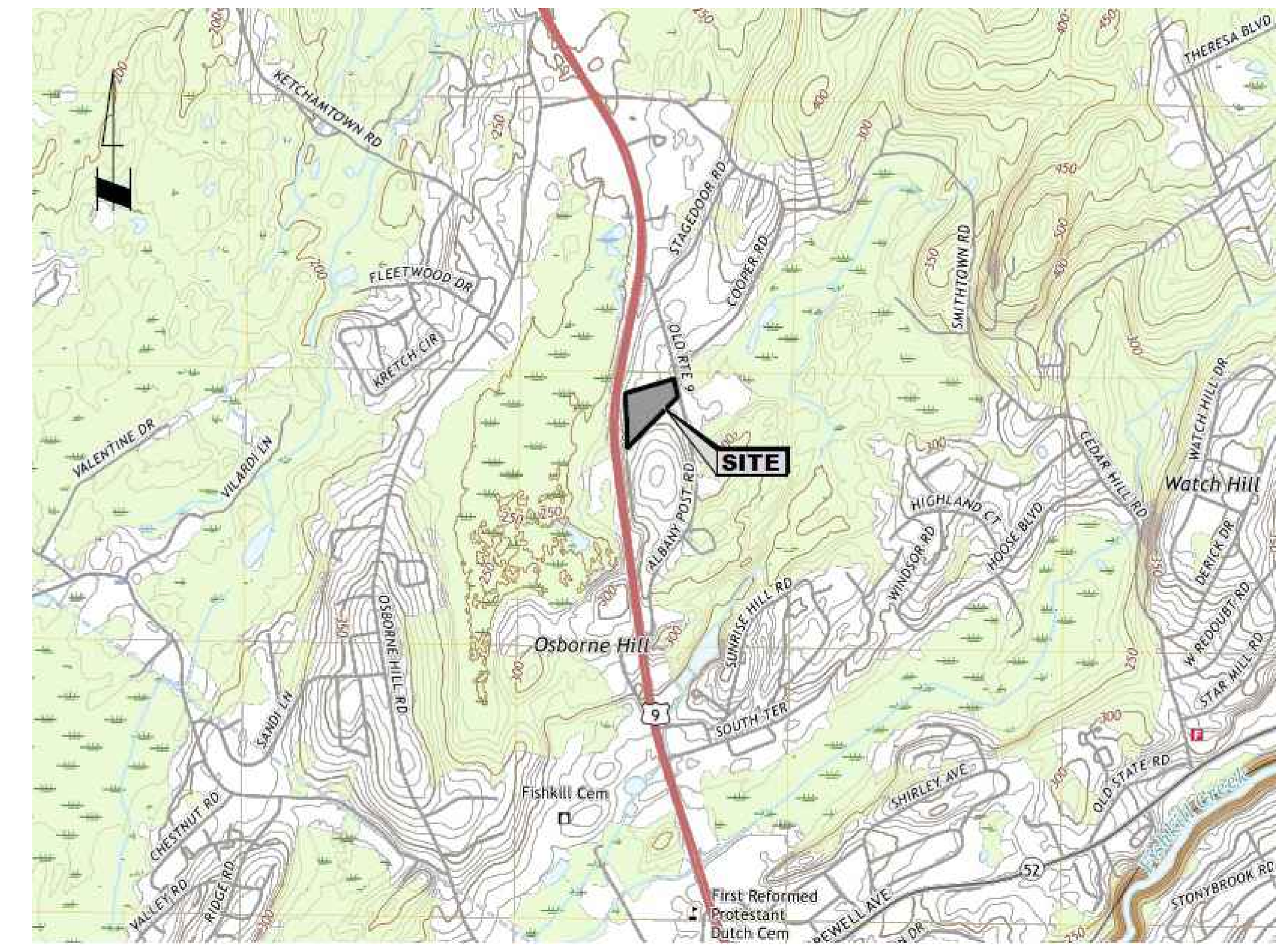
PROPOSED LIQUID PROPANE STORAGE FACILITY
DOWNEY ENERGY
199 OLD ROUTE 9 TOWN OF WAPPINGERR. N.Y.

EROSION CONTROL PLAN

DATE	5/1/2023
SCALE	1" = 20'
DRAWN	MO
JOB	19-013
SHEET	S-5


NORTH
SEE SHEET 16 FOR DETAILS
PROPOSED SUBSURFACE SEWAGE DISPOSAL AREA
11'x65' PROPANE TANK
11'x65' PROPANE TANK
PROPOSED 1,000 GAL. SEPTIC TANK
PROPOSED DOSING CHAMBER
24'X48' BUILDING FF: 179.0
PROPOSED 1" WATER SERVICE LINE
2 ROWS 84 LF (168 LF) 48" ALUMINIZED CMP INV EL = 172.0
PROPOSED WELL
PROPOSED 30,000 GAL. UNDERGROUND STORAGE TANK FOR FIRE SUPPRESSION (NOT FOR DCEHS APPROVAL)
BIORETENTION AREA
Wetland 100' Adjacent Area
OFF-SITE WELL
PROPOSED UNDERGROUND ELECTRIC UTILITY
PROPOSED UTILITY POLE
Chain Link Fence
PROPOSED HYDRANT (NOT FOR DCEHS APPROVAL) (AVAILABLE FOR USE BY TOWN OF WAPPINGER EMERGENCY SERVICES)
6" DIP
OLD ROUTE 9
PROPOSED OVERHEAD ELECTRIC LINE
EXISTING UTILITY POLE
Utility Pole
20 10 0 20
SCALE IN FEET



SITE LOCATION MAP

SOURCE: HOPEWELL JUNCTION USGS
QUAD SCALE: 1" = 2000'

1 OF 4 DCEHS APPROVAL

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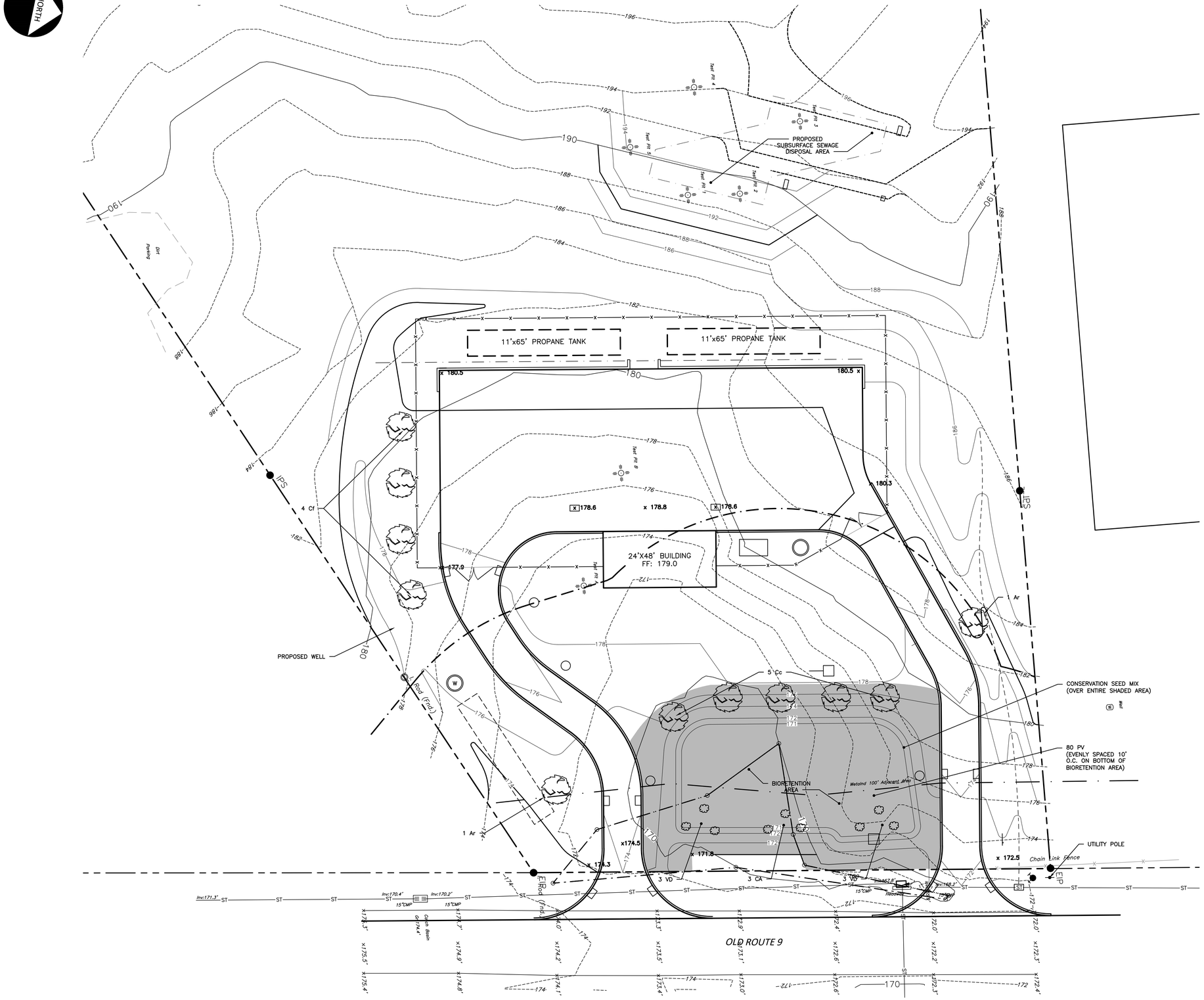
PROPOSED LIQUID PROPANE STORAGE FACILITY
DOWNEY ENERGY
199 OLD ROUTE 9 TOWN OF WAPPINGER, N.Y.

UTILITY PLAN

DATE	5/1/2023
SCALE	1" = 20'
DRAWN	MO
JOB	19-013
SHEET	S-6



20 10 0 20

SCALE IN FEET

LANDSCAPING NOTES

1. THE WORK OF FURNISHING AND PLANTING TREES, SHRUBS AND VINES AS SHOWN ON THE PLANS AND AS APPROVED BY THE PLANNING BOARD WILL BE ACCOMPLISHED IN ACCORDANCE WITH ACCEPTED, ESTABLISHED HORTICULTURAL PRACTICES. ANY CHANGE IN PLANT TYPE, ETC., OR LOCATION REQUIRES THE WRITTEN APPROVAL OF THE PLANNING BOARD.
2. PLANTS: COMMON AND SCIENTIFIC NAMES OF PLANTS SHALL BE IN CONFORMITY WITH SPN (STANDARDIZED PLANT NAMES). PLANTS INCLUDING ROOT SPREAD AND BALL SIZE SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF "AMERICAN STANDARD FOR NURSERY STOCK".
3. PLANTS SHALL HAVEA NORMAL HABIT OF GROWTH AND BE TYPICALLY CHARACTERISTIC OF THEIR RESPECTIVE KINDS.
4. PLANTS SHALL BE FREE FROM INJURY, INSECT DAMAGE, AND DISEASE.
5. CONTAINER GROWTH PLANTS SHALL HAVE BEEN GROWN LONG ENOUGH FOR NEW FIBROUS ROOTS TO HAVE DEVELOPED. SHRUBS AND VINES SHALL HAVE GOOD FIBROUS ROOT SYSTEMS.
6. NO PLANTING WILL BE DONE WHEN THERE ARE UNSATISFACTORY CONDITIONS AS DETERMINED BY THE ARCHITECT.
7. ROCK OR OTHER UNDERGROUND OBSTRUCTIONS SHALL BE REMOVED TO A DEPTH AS DIRECTED BY THE ARCHITECT.
8. ALL PLANTS SHALL BE PROTECTED FROM DRYING OUT.
9. LOCATIONS OF PLANTINGS SHALL BE MARKED OUT ON THE GROUND BY THE CONTRACTOR TO THE SATISFACTION OF THE ARCHITECT.
10. ALL PLANTS SHALL BE SET IN ACCORDANCE WITH GOOD ESTABLISHED HORTICULTURAL PRACTICE.
11. ALL PLANTS SHALL BE PLUMB AT SUCH A LEVEL THAT AFTER SETTLEMENT THEY BEAR THE SAME RELATIONSHIP TO THE LEVEL OF THE SURROUNDING GROUND AS THE BORE TO THE GROUND FROM WHICH THEY WERE DUG UNLESS OTHERWISE DIRECTED BY THE ARCHITECT.
12. BACKFILL SHALL BE THOROUGHLY SETTLED BY TAMPING. BACKFILL IS TO BE PLACED INTO PLANT PITS IN LAYERS NOT TO EXCEED 4" AND TAMPED.
13. THOROUGH WATERING SHOULD ACCOMPANY BACKFILL UNLESS OTHERWISE DIRECTED BY THE ARCHITECT. A SAUCER CAPABLE OF HOLDING WATER TO A DEPTH AS SHOWN ON THE PLANS SHALL BE FORMED ABOUT EACH PLANT PIT. ALL PLANTS SHALL BE WATERED TO PROVIDE NOT LESS THAN FIVE GALLONS OF WATER PER SQUARE YARD OF PLANT PIT OR BED AREAS.
14. ALL CLOTH ROPES, ETC. SHALL BE REMOVED FROM THE TOPS OF BALLS, BUT NOT PULLED OUT FROM UNDER BALLS.
15. ALL TRUNKS OF DECIDUOUS TREES SHALL BE WRAPPED WITH A MATERIAL AS APPROVED BY THE ARCHITECT IMMEDIATELY AFTER PLANTING.
16. ALL TREES SHALL BE FIRMLY GUYED, STAKED, OR ANCHORED UNLESS OTHERWISE APPROVED.
17. PRUNING SHALL BE DONE IN ACCORDANCE WITH ACCEPTED GOOD HORTICULTURAL PRACTICE AS DIRECTED BY THE ARCHITECT.
18. MULCHING SHALL COVER THE PLANT PIT OR PLANTING BED TO A DEPTH AS SPECIFIED ON THE PLANS.
19. THE AREA DISTURBED BY THE PLANTING OPERATION SHALL BE RESTORED TO AN ORDERLY CONDITION AS APPROVED BY THE ARCHITECT.
20. ANTI-DESICCANTS SHALL BE APPLIED TO ALL PLANTINGS ACCORDING TO THE MANUFACTURERS DIRECTIONS. THIS MATERIAL SHALL BE APPLIED TO EVERGREENS WITHIN TWO WEEKS OF PLANTING AND TO DECIDUOUS PLANTINGS PLACED IN THE FALL WHEN AIR TEMPERATURE IS ABOVE 40 DEGREES FAHRENHEIT OR IN THE SPRING WHEN LEAVES HAVE REACHED 75% OF MATURE SIZE.
21. ALL DEAD, UNHEALTHY OR BADLY IMPAIRED PLANTS, AS DETERMINED BY THE ARCHITECT, SHALL BE PROMPTLY REMOVED FROM THE PROJECT.
22. IN THE EVENT OF THE THREAT OF SERIOUS DAMAGE FROM INSECTS, DISEASE OR RODENTS, THE PLANTS WILL BE TREATED IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE AS APPROVED BY THE ARCHITECT.
23. ALL VEGETATION SHOWN ON THIS PLAN SHALL BE MAINTAINED IN A HEALTHY AND VIGOROUS GROWING CONDITION THROUGHOUT THE DURATION OF THE PROPOSED USE. ALL VEGETATION NOT SO MAINTAINED SHALL BE REPLACED WITH NEW COMPARABLE VEGETATION AT THE BEGINNING OF THE NEW GROWING SEASON.
24. ALL PLANTED AREAS WHERE TREES AND/OR SHRUBS ARE INDICATED, TO HAVE BEDS OF WHITEWASHED STONE OR PINE BARK CHIPS AS NOTED ON PLANS.
25. ALL REMAINING AND DISTURBED AREAS NOT PAVED OR BEING PLANTED WITH TREES OR SHRUBS SHALL BE SEEDED AND MULCHED.
26. CONTRACTOR TO BE RESPONSIBLE FOR BRINGING TOPSOIL TO SITE AS NECESSARY FOR PROPER SEEDING AND PLANTING.
27. ALL PLANTING SHALL BE GUARANTEED BY CONTRACTOR A MINIMUM OF ONE YEAR AND BE REPLACED AS NECESSARY.
28. FERTILIZE AND/OR FEED ALL PLANTINGS AS RECOMMENDED.
29. AFTER SEEDING GERMINATES, CONTRACTOR TO BE RESPONSIBLE FOR RAKING, MULCHING, RE-SEEDING AS NECESSARY AND CUTTING AND MAINTAINING LAWN FOR A PERIOD OF ONE MONTH AFTER GERMINATION AND TO ARCHITECT'S SATISFACTION.

PLANTING SCHEDULE

MARK	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE
Ar	2	ACER RUBRUM	RED MAPLE	2 ½"-3"C
Cf	4	CORNUS FLORIDA	FLOWERING DOGWOOD	2 ½"
Cc	5	CERCIC CANADENSIS	ROSEBUD	2 ½"

1. THE DWARF ENGLISH BOXWOOD AND BELLA BELLISIMA TO BE KEPT AT A HEIGHT OF NO GREATER THAN 30" ABOVE FINISHED GRADE AND SHOULD BE TRIMMED REGULARLY.

BIORETENTION AREA SCHEDULE

MARK	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SIZE
CA	3	CORANUS AMOMIUM	SILKY DOGWOOD	10 FT (MIN)	#5 POT
PV	80	PANICUM VIRGATUM	SWITCHGRASS	18 IN (MIN)	#3 POT
VD	6	VIRURNUM DENTATUM	ARROWWOOD VIBURNUM	10 FT (MIN)	#10 POT

1. CONSERVATION MIX SHALL BE NEW ENGLAND CONSERVATION/WILDLIFE MIX BY NEW ENGLAND WETLAND PLANTS, INC. (WWW.NEWP.COM).
2. SWITCH GRASS SHALL BE SPACED 10' O.C. OVER THE ENTIRE BOTTOM OF THE BIORETENTION AREA (170 CONTOUR),

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PROPOSED LIQUID PROPANE STORAGE FACILITY
DOWNEY ENERGY
199 OLD ROUTE 9 TOWN OF WAPPINGERR. N.Y.

LANSCAPING PLAN & NOTES

DATE	5/1/2023
SCALE	1" = 20'
DRAWN	MO
JOB	19-013
SHEET	S-7

NORTH

11'x65' PROPANE TANK

11'x65' PROPANE TANK

24'X48' BUILDING
FF: 179.0

2 ROWS 84 LF
(168 LF) 48"
ALUMINIZED CMP

BIORETENTION
AREA

Wetalnd 100' Adjacent Area

Chain Link Fence

OLD ROUTE 9

SCALE IN FEET
20 10 0 20

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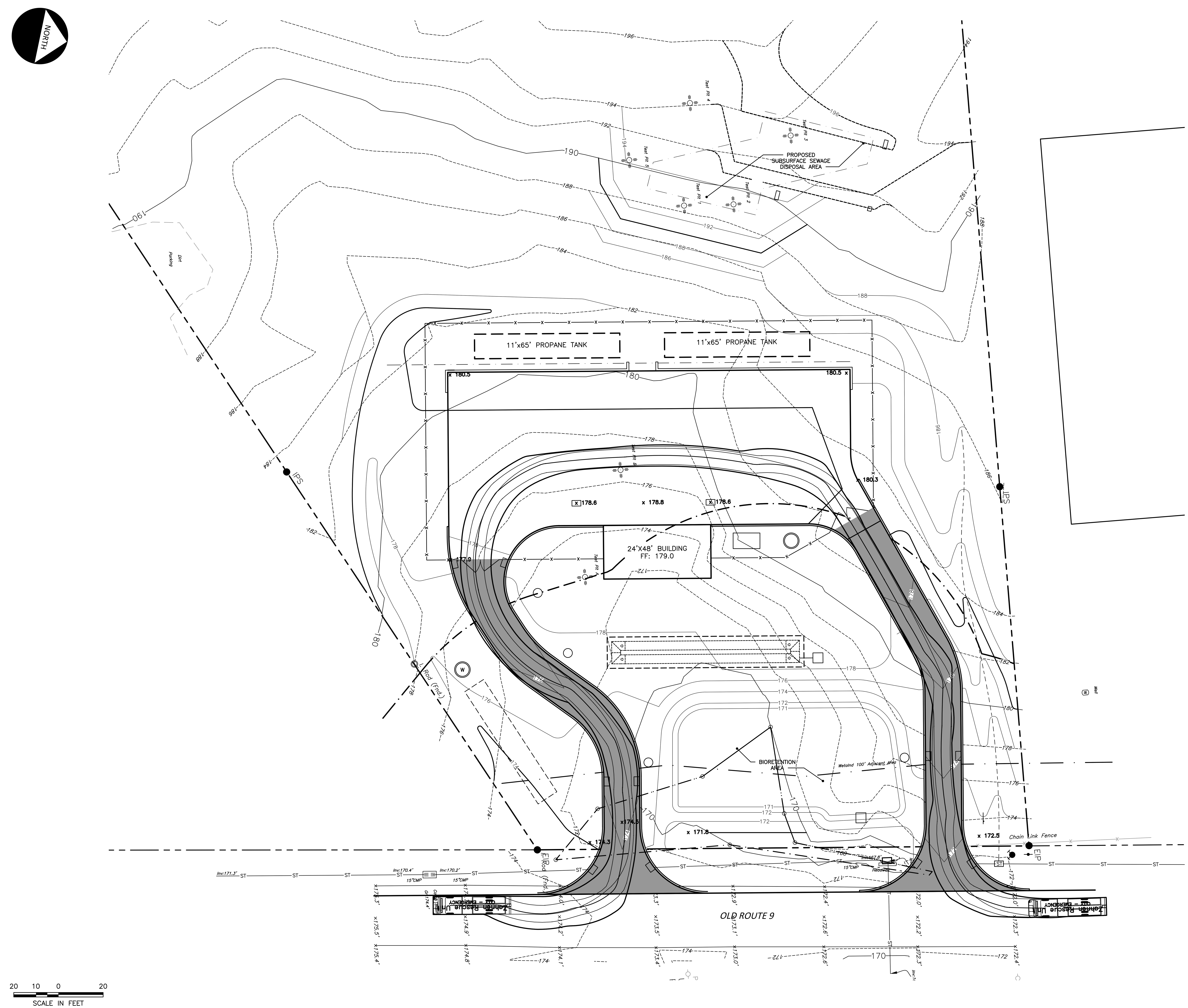
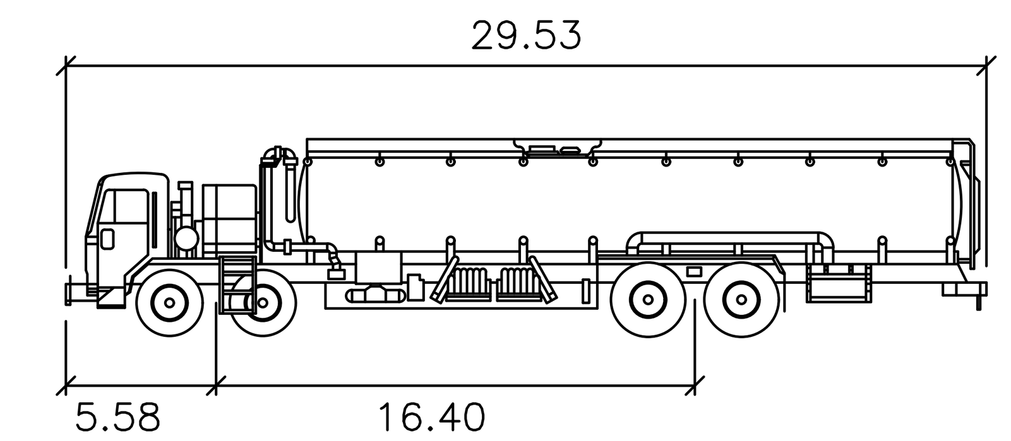
PROPOSED LIQUID PROPANE STORAGE FACILITY
DOWNEY ENERGY
199 OLD ROUTE 9 TOWN OF WAPPINGERR. N.Y.

PHOTOMETRIC PLAN

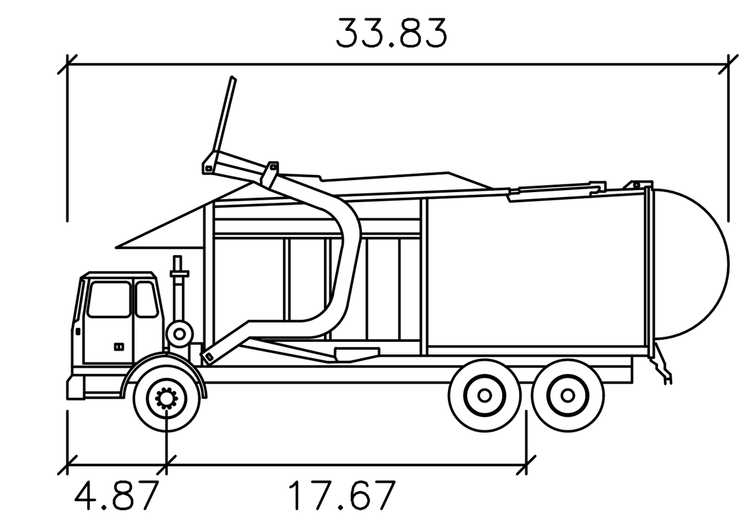
DATE	5/1/2023
SCALE	1" = 20'
DRAWN	MO
JOB	19-013
SHEET	S-8





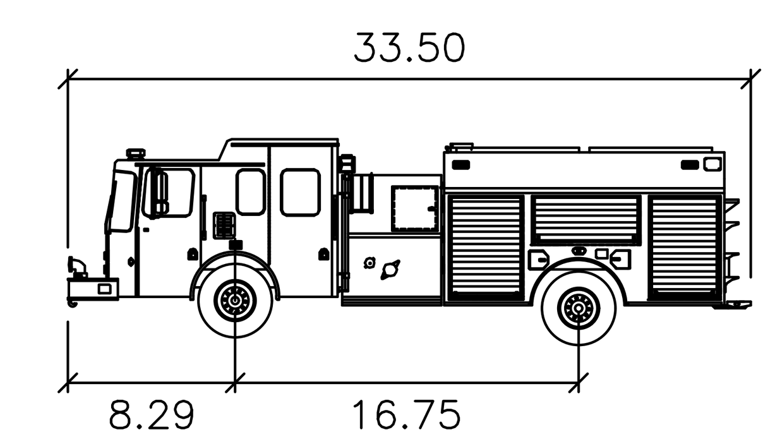
Fuel Truck

	feet
Width	: 8.20
Track	: 8.20
Lock To Lock Time	: 6.0
Steering Angle	: 39.5



Wayne Titan

	feet
Width	: 8.46
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 45.0



Smeal Pumper CAFS

	feet
Width	: 8.17
Track	: 7.94
Lock to Lock Time	: 6.0
Steering Angle	: 45.0

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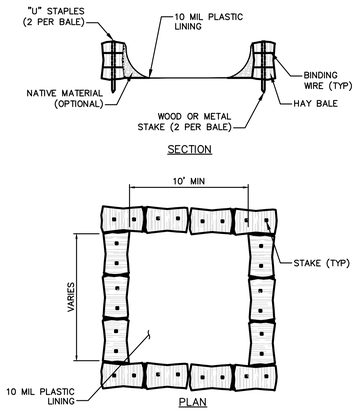
PROPOSED LIQUID PROPANE STORAGE FACILITY
DOWNEY ENERGY
199 OLD ROUTE 9 TOWN OF WAPPINGERR, N.Y.

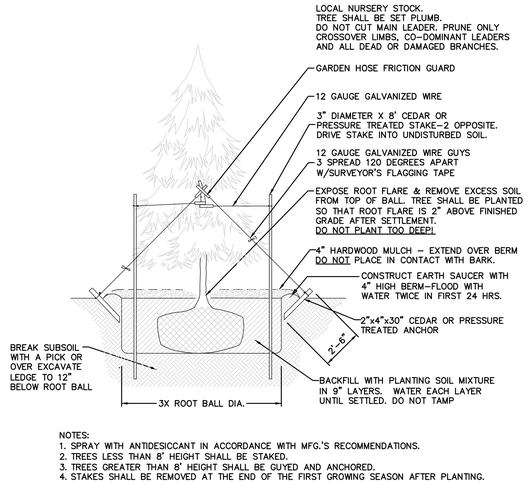
VEHICLE MOVEMENT PLAN

DATE	5/1/2023
SCALE	1" = 20'
DRAWN	MO
JOB	19-013
SHEET	S-9



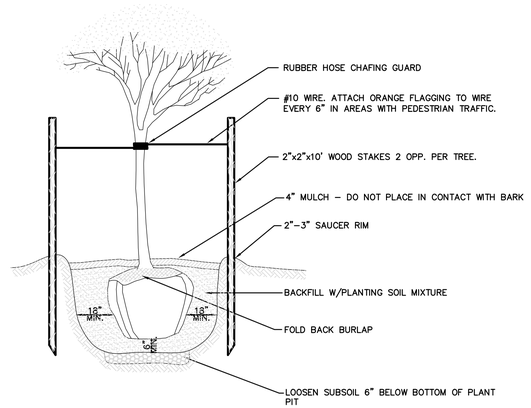
NOTES:
1. CONCRETE WASHOUT SIGN TO BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT FACILITY.
2. REMOVE HARDEN CONCRETE WHEN WITHIN 4" FROM TOP OF STRUCTURE.
3. CONSTRUCT NEW FACILITIES ONCE CURRENT FACILITIES ARE TWO-THIRDS FULL.
4. LINERS, HAYBALES, ET.C SHALL BE INSPECTED FOR DAMAGE. ANY DAMAGE SHALL BE REPAIR PROMPTLY.

1 ABOVE GROUND TEMPORARY CONCRETE WASHOUT FACILITY
NOT TO SCALE

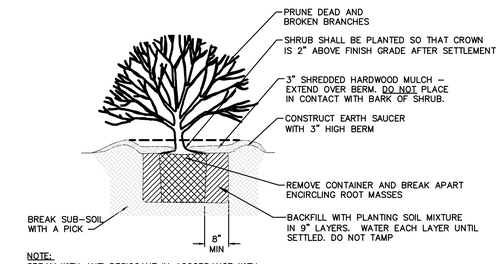


NOTES:
1. SPRAY WITH ANTIDESICCANT IN ACCORDANCE WITH MFG.'S RECOMMENDATIONS.
2. TREES LESS THAN 8' HEIGHT SHALL BE STAKED.
3. TREES GREATER THAN 8' HEIGHT SHALL BE GUYED AND ANCHORED.
4. STAKES SHALL BE REMOVED AT THE END OF THE FIRST GROWING SEASON AFTER PLANTING.

2 EVERGREEN TREE PLANTING
NOT TO SCALE



3 DECIDUOUS TREE
NOT TO SCALE

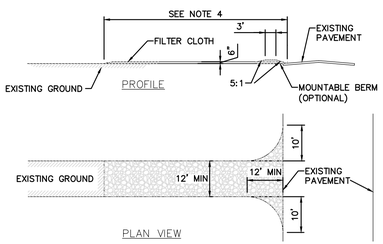


NOTE:
SPRAY WITH ANTI DESICCANT IN ACCORDANCE WITH MFG.'S RECOMMENDATIONS IF FOLIAGE IS PRESENT.

FOR CONTAINER GROWN SHRUBS, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.

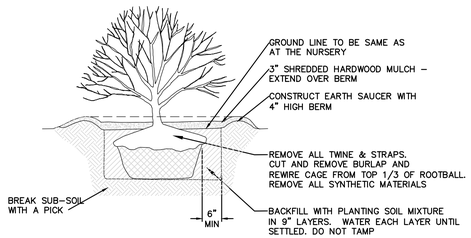
INCORPORATE COMMERCIALLY PREPARED MYCORRHIZA SPORES IN THE SOIL IMMEDIATELY AROUND THE ROOT BALL AT RATES SPECIFIED BY THE MANUFACTURER.

4 SHRUB PLANTING DETAIL FOR CONTAINERIZED SHRUBS
NOT TO SCALE



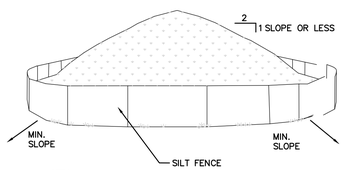
CONSTRUCTION ENTRANCE SPECIFICATIONS:
1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. THICKNESS - NOT LESS THAN SIX (6) INCHES.
3. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY FOUR FEET (24) FOOT IF SINGLE ENTRANCE TO SITE.
4. LENGTH - NOT LESS THAN 50' (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH WOULD APPLY).
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

5 STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE



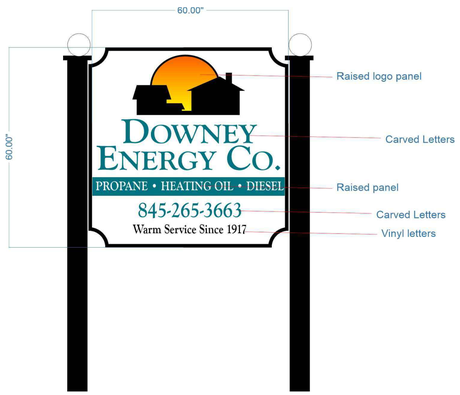
NOTE:
SPRAY WITH ANTIDESICCANT IN ACCORDANCE WITH MFG.'S RECOMMENDATIONS IF FOLIAGE IS PRESENT.

6 SHRUB PLANTING DETAIL FOR ALL SHRUBS BALLED & BURLAPPED
NOT TO SCALE

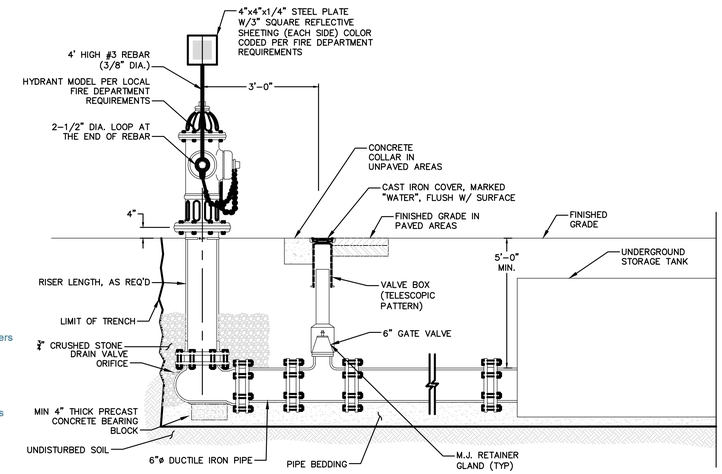


NOTES:
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1V:2H.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE SPECIFICATIONS FOR INSTALLATION OF SILT FENCE.
5. HAYBALES TO BE USED WHERE STOCKPILES ARE LOCATED ON PAVED AREAS.

7 TEMPORARY SOIL STOCKPILE
NOT TO SCALE



8 ENTRANCE SIGN
NOT TO SCALE



NOTES:
1. HYDRANT SHALL MEET REQUIREMENTS OF AWWA C502.
2. EXACT RISER LENGTH TO SUIT FIELD CONDITIONS AND CONFORM WITH MANUFACTURER'S RECOMMENDATIONS.

9 HYDRANT ASSEMBLY
NOT TO SCALE

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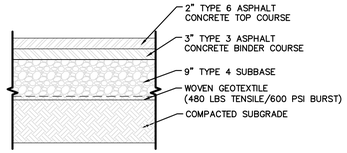
DOWNEY ENERGY
199 OLD ROUTE 9 TOWN OF WAPPINGERR. N.Y.

SITE DETAILS

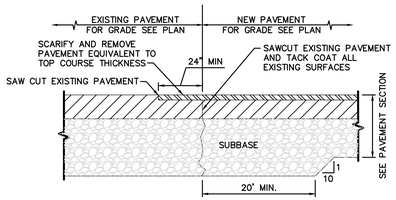
DATE	5/1/2023
SCALE	AS SHOWN
DRAWN	MO
JOB	19-013
SHEET	S-10



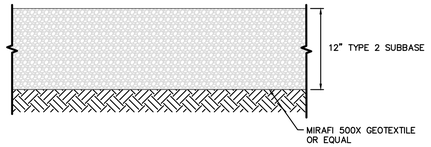
NOTES:

1. MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED JANUARY 2, 2008, AND ALL ADDENDA THERETO; THE ONLY EXCEPTION BEING THAT THE WORK OF THIS CONTRACT SHALL BE MEASURED IN ENGLISH UNITS.
2. SUBBASE MATERIAL SHALL CONFORM WITH SECTION 304 – SUBBASE COURSE OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND THE TYPE CALLED OUT IN THESE DRAWINGS.
3. TACK COAT WHEN SPECIFIED OR CALLED OUT IN THESE DRAWINGS OR REQUIRED BY THE REFERENCED SPECIFICATIONS SHALL CONFORM WITH SECTION 407–TACK COAT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
4. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSES OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMANCE WITH SECTION 203–EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS

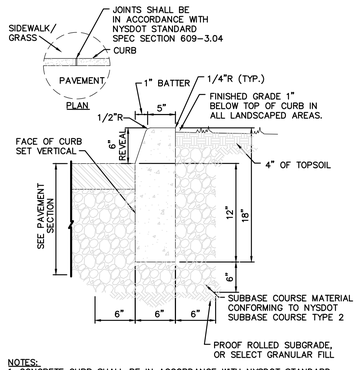
1 ASPHALT PAVEMENT SECTION
NOT TO SCALE



2 PAVEMENT TRANSITION (SAWCUT)
NOT TO SCALE



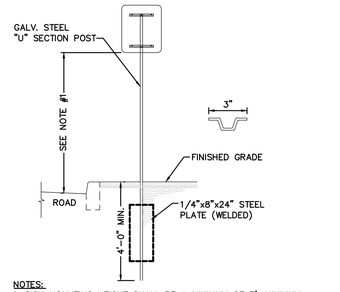
3 GRAVEL PAVING
NOT TO SCALE



NOTES:

1. CONCRETE CURB SHALL BE IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION SECTION 609.
2. PRECAST CONCRETE CURB MAY BE SUBSTITUTED WHEN ALTERNATE CONSTRUCTION DETAILS ARE SUBMITTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.

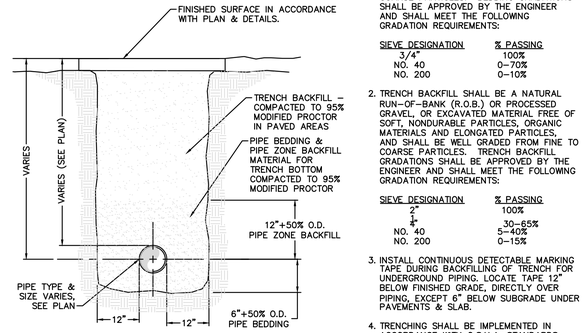
4 SITE CAST IN PLACE CONCRETE CURB
NOT TO SCALE



NOTES:

1. SIGN MOUNTING HEIGHT SHALL BE A MINIMUM OF 7'. MINIMUM MOUNTING HEIGHT MAY BE ADJUSTED ONLY IN ACCORDANCE WITH PROVISIONS OUTLINED IN "NYCRR, CHAPTER V–UNIFORM TRAFFIC CONTROL DEVICES."
2. SIGN POST SHALL BE IN ACCORDANCE W/ NYSDOT STANDARD SPECS SECTION 730.

5 SINGLE POST SIGN MOUNTING
NOT TO SCALE



NOTES:

1. PIPE BEDDING & PIPE ZONE BACKFILL SHALL BE A NATURAL RUN–OF–BANK (R.O.B.) SAND OR A MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. BEDDING GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

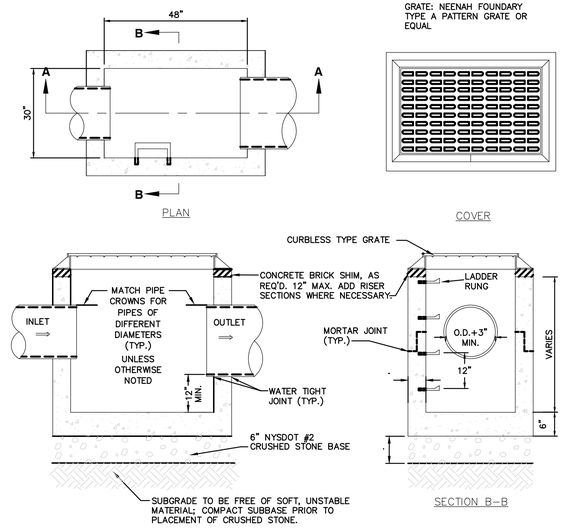
SIEVE DESIGNATION	% PASSING
3/4"	100%
NO. 40	0–70%
NO. 200	0–10%

2. TRENCH BACKFILL SHALL BE A NATURAL RUN–OF–BANK (R.O.B.) OR PROCESSED GRAVEL, OR EXCAVATED MATERIAL FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. TRENCH BACKFILL GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
2"	100%
1"	30–65%
NO. 40	5–40%
NO. 200	0–15%

3. INSTALL CONTINUOUS DETECTABLE MARKING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND PIPING. LOCATE TAPE 12" BELOW FINISHED GRADE, DIRECTLY OVER PIPING, EXCEPT 6" BELOW SUBGRADE UNDER PAVEMENTS & SLAB.
4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.

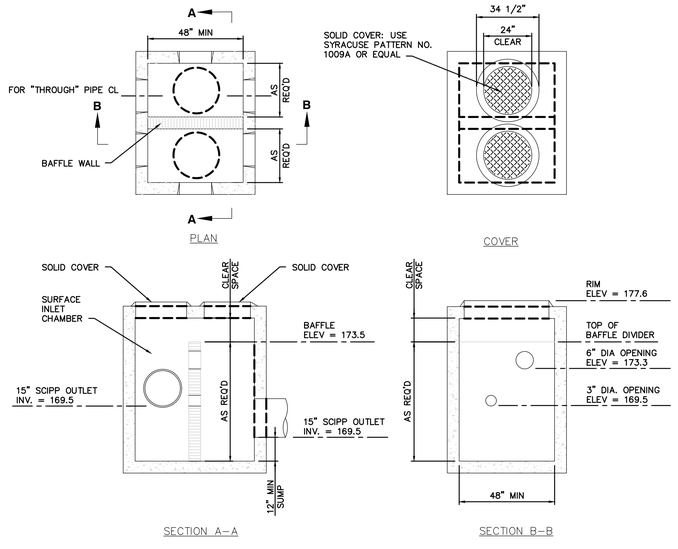
6 STORM PIPE TRENCH
NOT TO SCALE



NOTES:

1. PRECAST CONCRETE CATCH BASIN SECTIONS AS MANUFACTURED BY WOODWARD'S CONCRETE OR APPROVED EQUAL
2. CATCH BASIN SHALL BE PRECAST CONCRETE. DESIGNED FOR H20 VEHICULAR LOADING AND 25% IMPACT.
3. FRAME AND COVER SHALL BE DESIGNED FOR H20 VEHICULAR LOADING & 25% IMPACT.
4. CONCRETE CATCH BASIN CASTING CLEAR OPENING DIMENSION MUST MATCH FRAME AND GRATE CLEAR OPENING DIMENSION.
5. CATCH BASINS HAVING A DEPTH GREATER THAN 48" FROM FINISHED SURFACE TO THE TOP OF THE CONCRETE BASE SHALL BE PROVIDED WITH STEPS.
6. BACKFILL USING TRENCH BACKFILL, COMPACTED IN 6" LIFTS.
7. SUMPS FOR CATCH BASINS SHALL BE 12" OR AS OTHERWISE NOTED.
8. INSTALL CATCH BASINS ON EXISTING STORM PIPES WITHIN THE ROW PER TOWN REQUIREMENTS.
9. FOR INSTALLATION OF EXISTING PIPES, CUT THE PIPE TO ALLOW INSTALLATION. SLIDE ONE END OF CATCH BASIN ONTO PIPE AND INSTALL AN EXTENSION TO THE OPPOSITE SIDE PIPE WITH A COUPLING APPROVED FOR THE PIPE MATERIAL. MORTAR ALL PIPES WITHIN THE STRUCTURE OPENINGS.

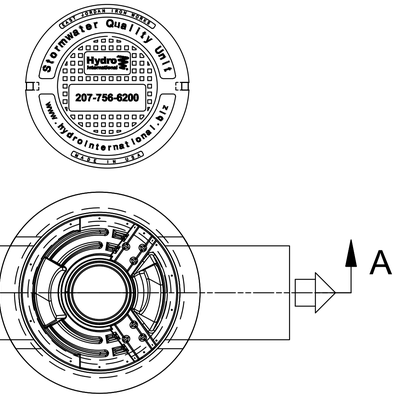
7 PRECAST CONCRETE CATCH BASIN
NOT TO SCALE

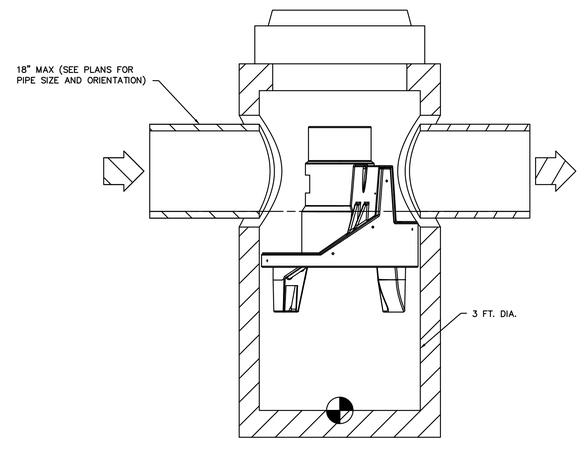


NOTES:

1. PIPE PENETRATIONS SHALL BE AS SHOWN ON THE UTILITY PLAN.

8 DETENTION SYSTEM OUTLET STRUCTURE
NOT TO SCALE





NOTES:

1. UNIT SHALL BE FIRST DEFENCE MODEL FD–3HC BY HYDRO INTERNATIONAL, HYDRO–INT.COM.

9 PRE–TREATMENT CHAMBER
NOT TO SCALE

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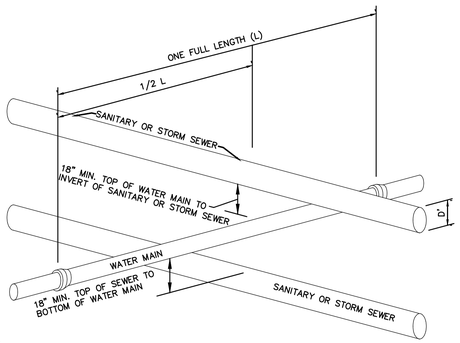
SITE DETAILS

DATE	5/1/2023
SCALE	AS SHOWN
DRAWN	MO
JOB	19-013
SHEET	S-11



NOTES:
1. IF 18" VERTICAL SEPARATION CANNOT BE ACHIEVED AT LOCATIONS OF WATER MAIN & SEWER CROSSINGS, CONTRACTOR SHALL CONSTRUCT EITHER OF THE FOLLOWING OPTIONS:

   A. CONSTRUCT SEWER OF PVC PRESSURE PIPE MATERIAL 10' ON EACH SIDE OF THE WATER MAIN/SEWER.

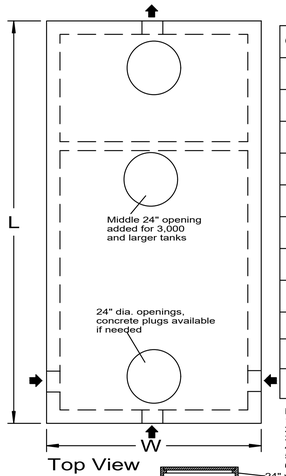
   B. ENCASE SEWER PIPE IN CONCRETE, 4' DISTANCE ON EACH SIDE OF WATER MAIN/SEWER CROSSING. CONCRETE ENCASEMENT SHALL BE MINIMUM 6" ALL AROUND PROPOSED SEWER PIPE.

1. IF 10' HORIZONTAL SEPARATION CANNOT BE ACHIEVED AT LOCATIONS OF WATER MAIN & SEWER CROSSINGS, THE CONTRACTOR SHALL CONSTRUCT EITHER OF THE FOLLOWING OPTIONS:

   A. THE WATER MAIN SHALL BE RELOCATED TO PROVIDE THE 10' HORIZONTAL SEPARATION OR RECONSTRUCTED WITH MECHANICAL JOINT PIPE FOR A DISTANCE OF TEN (10) FEET ON EACH SIDE OF THE SEWER. ONE FULL LENGTH OF WATER MAIN SHALL BE CENTERED OVER THE SEWER SO THAT BOTH JOINTS WILL BE AS FAR AWAY FROM THE SEWER AS POSSIBLE (REFER TO THE WATER LINE OFFSET DETAIL ON SHEET C-530).

   B. BOTH THE WATER MAIN AND SEWER MAIN SHALL BE CONSTRUCTED OF MECHANICAL JOINT CAST IRON PIPE AND SHALL BE PRESSURE TESTED TO ASSURE WATER TIGHTNESS, OR ENCASED IN CONCRETE IN ACCORDANCE WITH THE NYS HEALTH DEPARTMENT REQUIREMENTS.

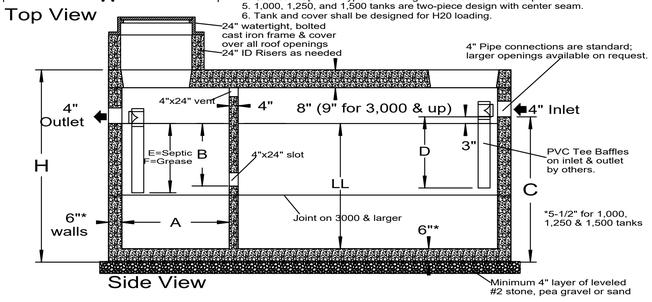
1 WATER/SEWER SEPARATION REQUIREMENTS
NOT TO SCALE



Top View

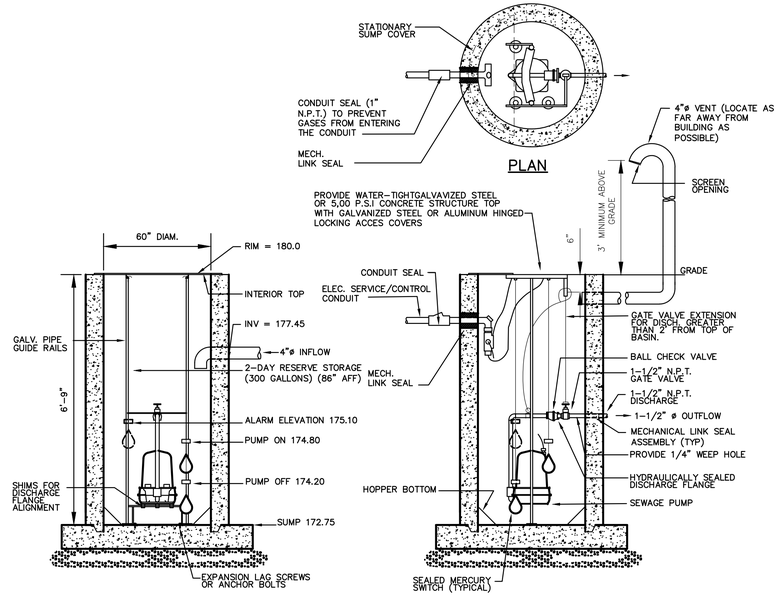
Gallons	L	W	H	LL	A	B	C	D	E	F
750	9'-6"	4'-6"	5'-11"	42"	34"	23"	51"	24"	21"	30"
1,000	10'-9"	5'-11"	4'-9"	35"	38"	16"	43"	21"	18"	23"
1,250	10'-9"	5'-11"	5'-3"	41.5"	38"	19"	49.5"	24"	21"	29"
1,500	10'-9"	5'-11"	5'-11"	49"	38"	22"	57"	27"	24"	37"
2,000	12'-6"	6'	7'-3"	58"	46"	31"	67"	32"	29"	46"
2,500	14'	6'-6"	7'-3"	58"	46"	31"	67"	32"	29"	46"
3,000	15'-6"	7'	7'-3"	58"	52"	31"	67"	32"	29"	46"
3,500	15'-6"	8'	7'-3"	58"	52"	31"	67"	32"	29"	46"
4,000	17'-2"	8'	7'-3"	58"	58"	31"	67"	32"	29"	46"
5,000	18'-8"	9'	7'-3"	58"	70"	31"	67"	32"	29"	46"
6,000	20'-4"	9'-6"	7'-3"	60"	70"	33"	69"	32"	30"	48"

Notes:
1. Effluent outlet filters are available as well as high level alarms.
2. Gas deflectors are available for 4" outlet pipes.
3. Tank designs based on the 2014 NYSDEC design standards.
4. Grease Traps are Type 2 with longer outlet baffles than Septic Tanks.
5. 1,000, 1,250, and 1,500 tanks are two-piece design with center seam.
6. Tank and cover shall be designed for H20 loading.



Side View

2 1000 GALLON SEPTIC TANK
NOT TO SCALE

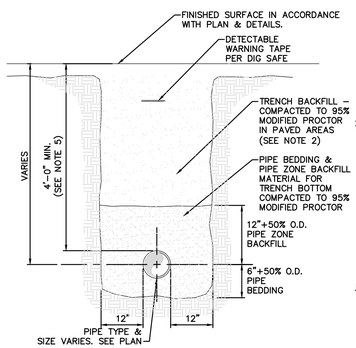


END VIEW OF PUMP

SIDE VIEW OF PUMP

NOTES:
1. ALL PUMP STATION COMPONENTS TO BE APPROVED BY PROJECT ENGINEER PRIOR TO INSTALLATION.
2. ELECTRICAL CONTROL UNIT WITH AUDIBLE/VISUAL ALARM & PUMP CONTROLS TO BE LOCATED WITHIN THE BUILDING.
3. THE WET WELL IS SIZED TO PROVIDE HOLDING CAPACITY EQUIVALENT TO 2 DAYS AT THE AVERAGE DAY LOAD OF 300 GALLONS.
4. PUMP SHALL BE GOULDS MODEL 2ED WITH 3.56" IMPELLER, 0.5 HP.
5. ALL ELECTRICAL WORK SHALL CONFORM TO NATIONAL ELECTRIC CODE (NEC) – LATEST EDITION.

3 DOSING CHAMBER
NOT TO SCALE



NOTES:
1. PIPE BEDDING & PIPE ZONE BACKFILL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) SAND OR A MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. BEDDING GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

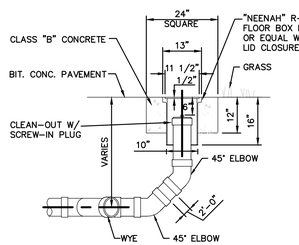
SIEVE DESIGNATION	% PASSING
3/4"	100%
NO. 40	0-70%
NO. 200	0-10%

2. TRENCH BACKFILL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) OR PROCESSED GRAVEL, OR EXCAVATED MATERIAL FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. TRENCH BACKFILL GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
2"	100%
¼"	30-65%
NO. 40	5-40%
NO. 200	0-15%

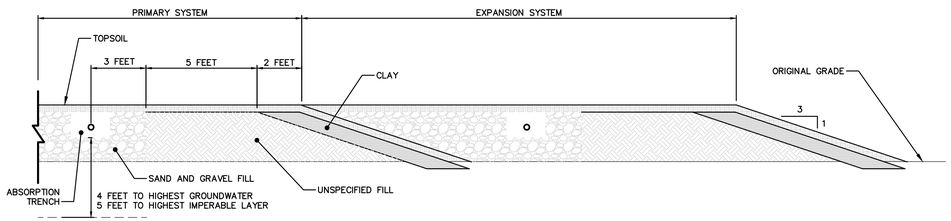
3. INSTALL CONTINUOUS DETECTABLE MARKING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND PIPING. LOCATE TAPE 12" BELOW FINISHED GRADE, DIRECTLY OVER PIPING, EXCEPT 6" BELOW SUBGRADE UNDER PAVEMENTS & SLAB.
4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.
5. SEE THE SHALLOW SANITARY TRENCH DETAIL FOR WHEN COVER IS LESS THAN 4'-0".

4 SEWER PIPE TRENCH
NOT TO SCALE



NOTES:
1. SEWER PIPE FITTINGS TO BE ASTM D-3033 OR D-3034 SDR-35.
2. TO BE USED FOR GRAVITY PORTION OF SANITARY SYSTEM AS WELL AS THE STORM ROOF DRAINAGE SYSTEM.

5 CLEAN OUT
NOT TO SCALE



6 SANITARY DISPOSAL FIELD CROSS SECTION
NOT TO SCALE

3 OF 4 DCEHS APPROVAL

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DRAWN	MO
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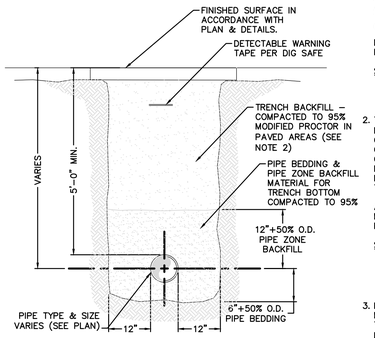


NOTES:

1. PIPE BEDDING & PIPE ZONE BACKFILL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) SAND OR A MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. BEDDING GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

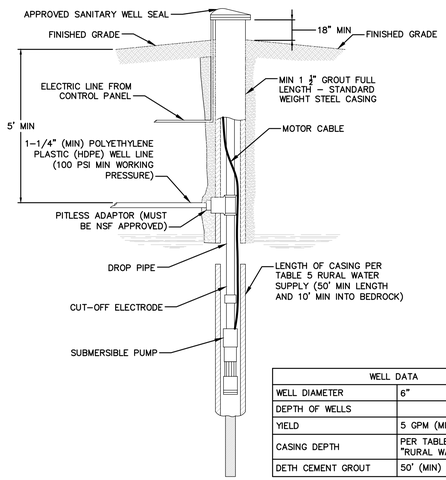
SIEVE DESIGNATION	% PASSING
3/4"	100%
NO. 40	0–70%
NO. 200	0–10%

2. TRENCH BACKFILL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) OR PROCESSED GRAVEL, OR EXCAVATED MATERIAL FREE OF SOFT, NONDURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. TRENCH BACKFILL GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
2"	100%
1"	30–65%
NO. 40	5–40%
NO. 200	0–15%

3. INSTALL CONTINUOUS DETECTABLE MARKING TAPE DURING BACKFILLING OF TRENCH FOR UNDERGROUND PIPING. LOCATE TAPE 12" BELOW FINISHED GRADE, DIRECTLY OVER PIPING, EXCEPT 6" BELOW SUBGRADE UNDER PAVEMENTS & SLAB.
4. TRENCHING SHALL BE IMPLEMENTED IN ACCORDANCE WITH O.S.H.A. STANDARDS.

1 WATER PIPE TRENCH
NOT TO SCALE

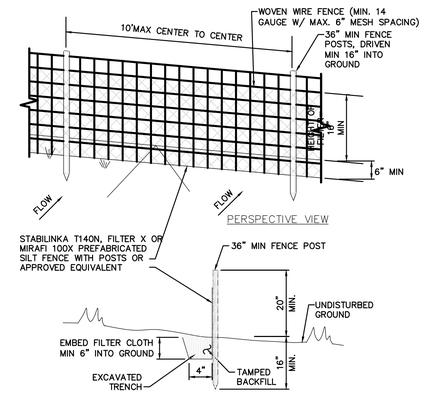


WELL DATA	
WELL DIAMETER	6"
DEPTH OF WELLS	
YIELD	5 GPM (MIN)
CASING DEPTH	PER TABLE 5 NYSDOH "RURAL WATER SUPPLY"
DETH CEMENT GROUT	50' (MIN)

NOTES:

1. SUBMERSIBLE PUMP AND PRE-CHARGED HYDROPNEUMATIC TANK SHALL BE PROVIDED. PRESSURE TANK DRAW DOWN SHALL NOT BE LESS THAN 20 GALLONS FOR A PRESSURE RANGE OF 30 TO 50 PSI. PUMP DISCHARGE CAPACITY SHALL NOT EXCEED THE DEPENDABLE YIELD OF THE WELL AT THE HIGH END OF THE PRESSURE RANGE.
2. THE DRILLED WELL SHALL BE COMPLETED WITH A DEPENDABLE YIELD OF NOT LESS THAN 5 GPM. PROVIDE WATER TREATMENT AS REQUIRED.
3. UPON COMPLETION OF CONSTRUCTION, DISINFECT WITH CHLORINE SOLUTION IN ACCORDANCE WITH NYS HEALTH DEPARTMENT SPECIFICATIONS.
4. CASING TO BE 50' MINIMUM LENGTH AND 10' MINIMUM INTO BEDROCK.
5. THE WELL SHALL BE CONSTRUCTED IN ACCORDANCE WITH TABLE 5 OF THE RURAL WATER SUPPLY HANDBOOK – NYS DEPARTMENT OF HEALTH – REVISED 1995.
6. CONSTRUCTION SHALL BE IN ACCORDANCE WITH APPENDIX 5-B OF PUBLIC HEALTH LAW 206 (18).

2 TYPICAL DRILLED WELL IN ROCK
NOT TO SCALE



SECTION

NOTES:

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE STEEL "T" OR "U" TYPE OR HARDWOOD.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAX MESH OPENING.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIALS REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
5. MAXIMUM DRAINAGE AREA FOR OVERLAND FLOW TO A SILT FENCE SHALL NOT EXCEED 1/4 ACRE PER 100 FEET OF FENCE.
6. SILT FENCE SHALL BE USED WHERE EROSION COULD OCCUR IN THE FORM OF SHEET EROSION.
7. SILT FENCE SHALL NOT BE USED WHEN A CONCENTRATION OF WATER IS FLOWING TO THE BARRIER.
8. MAXIMUM ALLOWABLE SLOPE LENGTHS CONTRIBUTING RUN-OFF TO A SILT FENCE ARE:

SLOPE STEEPNESS	MAXIMUM SLOPE LENGTH(FT)
2:1	25
3:1	50
4:1	75
5:1 OR FLATTER	100

3 SILT FENCE INSTALLATION
NOT TO SCALE

4 OF 4 DCEHS APPROVAL

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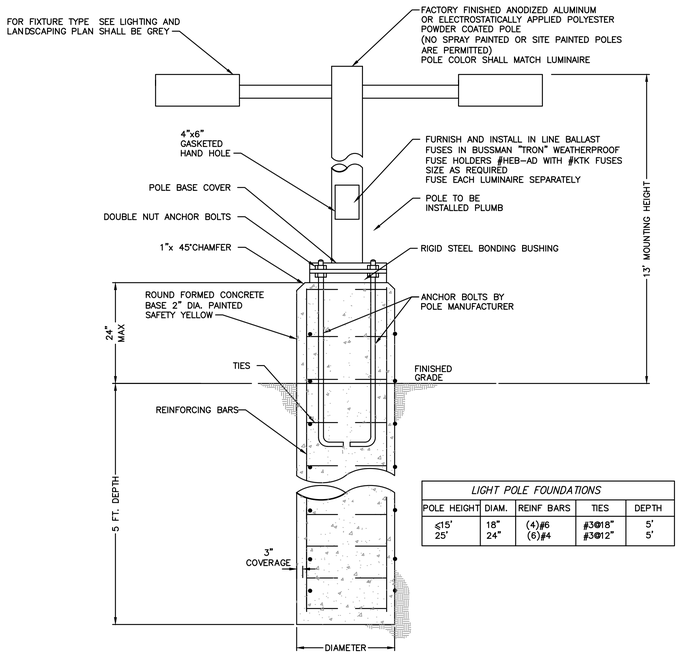
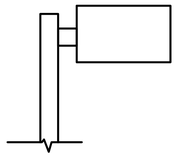


LIGHT POLE FOUNDATIONS				
POLE HEIGHT	DIAM.	REINF BARS	TIES	DEPTH
≤15'	18"	(4)#6	#3@18"	5'
25'	24"	(6)#4	#3@12"	5'

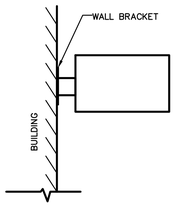
NOTES:
1. ALL CONCRETE SHALL BE 3,000 PSI @ 28 DAYS
2. DESIGNED FOR 90 MPH WIND WITH FIXTURE AREA OF 13 SF
3. FOUNDATION DIAMETER AND REINFORCING CIRCLE SHALL BE COORDINATED WITH ANCHOR BOLT LIMITS
4. FOUNDATIONS SHALL BEAR ON UNDISTURBED NATURAL SOIL OR COMPACTED CRUSH STONE
5. ALL EXCAVATIONS SHALL BE BACKFILLED WITH STRUCTURAL FILL AND COMPACTED TO 95% OF MAXIMUM MATERIAL DENSITY
6. EXPOSED AREAS OF CONCRETE AND ONE FOOT MIN BELOW FINISHED GRADE SHALL BE FORMED

1 LAMP POST BASE AND CONCRETE BASE
NOT TO SCALE



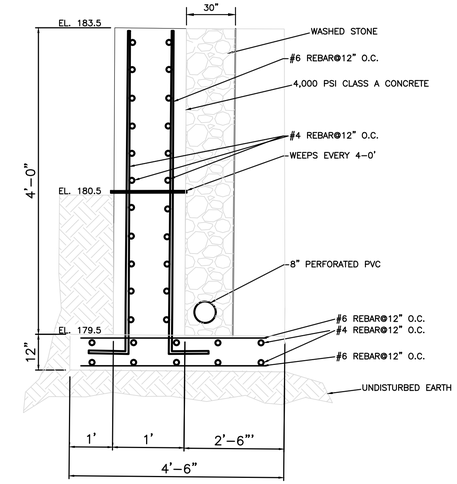
NOTE:
WLS LIGHTING SYSTEMS – SEE LIGHTING AND LANDSCAPING PLAN FOR FIXTURE SCHEDULE.

2 LIGHTING FIXTURE
NOT TO SCALE



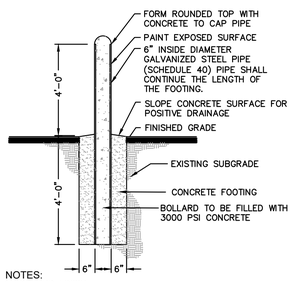
NOTE:
WLS LIGHTING SYSTEMS – SEE LIGHTING AND LANDSCAPING PLAN FOR FIXTURE SCHEDULE.

3 WALL MOUNTED LIGHTING FIXTURE
NOT TO SCALE



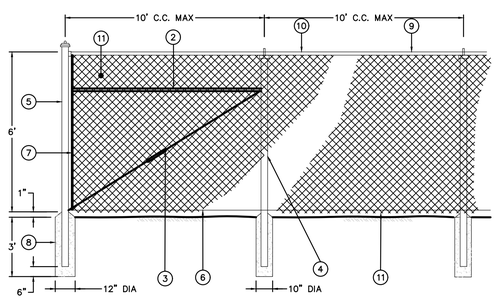
NOTE:
1. BACKFILL RETAINING WALL WITH CRUSHED STONE.

4 CAST-IN-PLACE CONCRETE RETAINING WALL
NOT TO SCALE



NOTES:
1. BOLLARD FINISH:
   PREPARE GALVANIZED COATING TO RECEIVE PAINTED FINISH. APPLY (1) COAT OF RUST INHIBITOR PRIMER. APPLY (2) COATS OF GLOSS ENAMEL (COLOR TO BE SELECTED BY THE OWNER.)
2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI @ 28 DAYS.
3. ALL CONCRETE SHALL HAVE A SLUMP OF NO GREATER THAN 4" (WITH A TOLERANCE OF 1").
4. ALL CONCRETE SHALL HAVE A 5% ENTRAINED AIR (WITH A TOLERANCES OF 1%) CONFORMING WITH ASTM C260.

5 STEEL AND CONCRETE BOLLARD
NOT TO SCALE



1. 1 5/8" O.D. TOP RAIL ATTACH TO THE C.L. FABRIC WITH 9 GAUGE WIRE CLIP EVERY 24"
2. 1 5/8" O.D. BRACE RAIL FENCES OVER 6 FEET FEET HIGH AND ALL FENCES WITHOUT TOP RAIL
3. 3/8" TRUSS ROD AND TURNBUCKLE
4. INTERMEDIATE POST

FENCE HEIGHT	SQUARE POST	ROUND POST
6 FEET AND LESS	1 7/8"	2"
OVER 6 FEET	2 1/2"	2 1/2"

   ATTACH TO C.L. FABRIC WITH CLIPS EVERY 15"
5. END OR CORNER POST

FENCE HEIGHT	SQUARE POST	ROUND POST
6 FEET AND LESS	2"	2 1/2"
OVER 6 FEET	2 1/2"	3"

6. 6 GAUGE BOTTOM TENSION WIRE ATTACH TO C.L. FABRIC WITH HOG RING AT 24" C.C.
7. TENSION ROD ATTACHED TO END OR CORNER POST
8. CONCRETE FOOTING 36" DEEP WITH 12" DIA. AT END POST AND 10" DIA. AT INTERMEDIATE POST. HOLE CORE IN UNDISTURBED OR COMPACTED SOIL. (SEE FOOTING DESIGN NOTE)
9. TOP RAIL
10. FABRIC SELVAGE UNDER 6 FEET SHALL BE KNUCKLED TOP AND BOTTOM 6 FEET AND OVER SHALL BE KNUCKLED BOTTOM AND TWISTED ON THE TOP RECREATIONAL FENCING, REGARDLESS OF HEIGHT, SHALL BE KNUCKLED TOP AND BOTTOM.
11. BLACK VINYL COATED WIRE MESH FABRIC WITH PRIVACY SLATS WHERE SPECIFIED

6 CHAIN LINK FENCE
NOT TO SCALE

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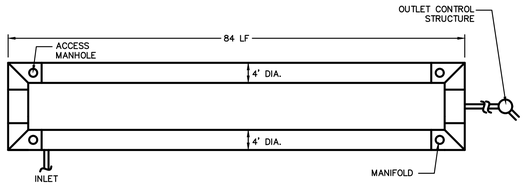
PROPOSED LIQUID PROPANE STORAGE FACILITY
DOWNEY ENERGY
199 OLD ROUTE 9 TOWN OF WAPPINGERR. N.Y.

SITE DETAILS

DATE	5/1/2023
SCALE	AS SHOWN
DRAWN	MO
JOB	19-013
SHEET	S-14

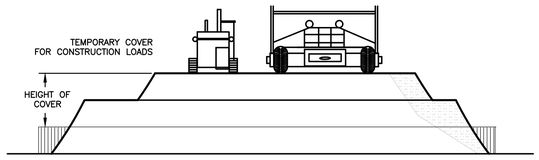


NOTES:

1. PROPOSED EQUAL DETENTION SYSTEMS OF DIFFERENT MATERIALS SUCH AS HIGH DENSITY POLYETHYLENE SHALL BE APPROVED BY THE ENGINEER.

1 STORMWATER DETENTION SYSTEM MANIFOLD

NOT TO SCALE



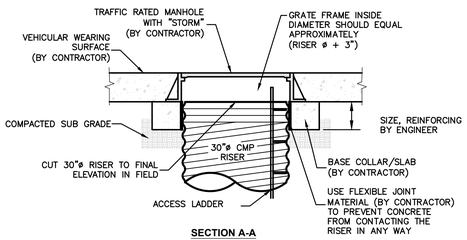
CONSTRUCTION LOADS:
FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

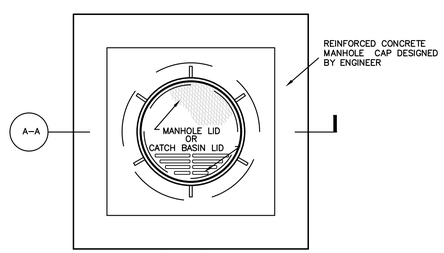
*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTANED CONSTRUCTION ROADWAY SURFACE.

4 TEMPORARY CONSTRUCTION LOADING

NOT TO SCALE



SECTION A-A



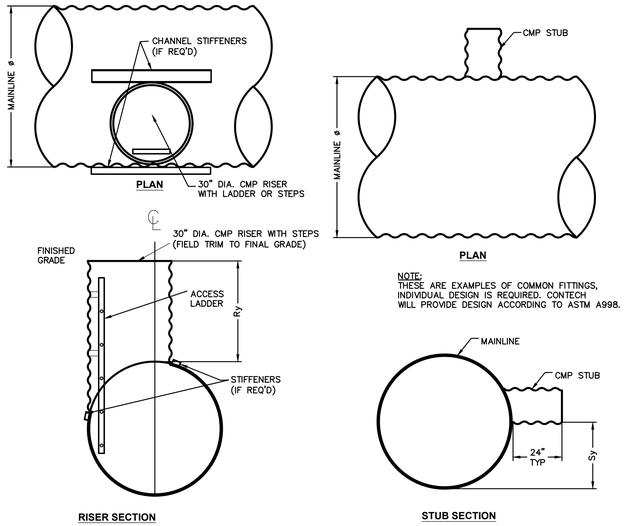
PLAN VIEW

NOTES:

1. THE CONCRETE CAP SHALL BE SIZED AND DESIGNED BY OTHERS SO THAT THE LOADS ARE TRANSMITTED TO THE SOIL, AND NOT THE RISER.
2. THE CONCRETE CAP SHALL BE SIZED TO PROVIDE AN ADEQUATE BOTTOM AREA BASED ON THE ALLOWABLE BEARING CAPACITY OF THE SOIL.
3. THE FLEXIBLE JOINT MATERIAL (RECYCLED VINYL OR EQ.) TO BE STIFF ENOUGH SO THAT THE CONCRETE CAN NEVER ENGAGE WITH THE RISER CORRUGATIONS.

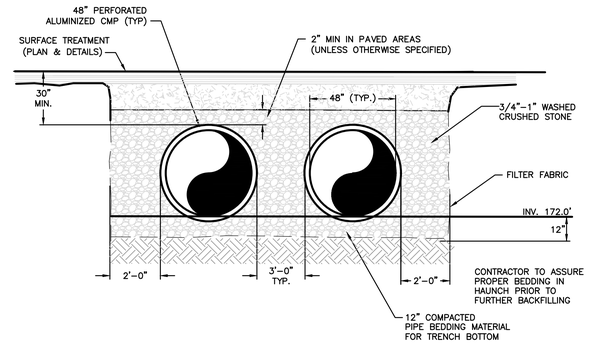
5 MANHOLE/CATCH BASIN CAP

NOT TO SCALE



2 STORMWATER DETENTION SYSTEM FITTINGS

NOT TO SCALE



NOTES:

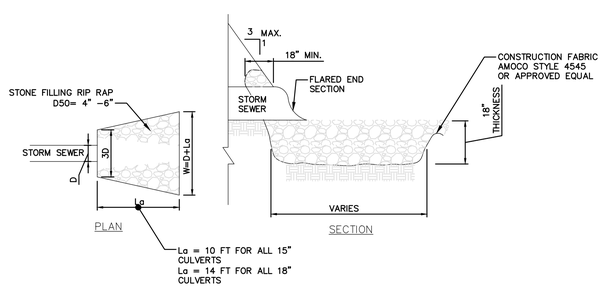
1. PIPE BEDDING MATERIAL SHALL BE A NATURAL RUN-OF-BANK (R.O.B.) SAND OR A MIXTURE OF CRUSHED STONE AND GRAVEL, FREE OF SOFT, NON-DURABLE PARTICLES, ORGANIC MATERIALS AND ELONGATED PARTICLES, AND SHALL BE WELL GRADED FROM FINE TO COARSE PARTICLES. BEDDING GRADATIONS SHALL BE APPROVED BY THE ENGINEER AND SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS:

SIEVE DESIGNATION	% PASSING
3/4"	100%
NO. 40	0-70%
NO. 200	0-10%

2. NO TRAFFIC, PARKING OR STORAGE OF HEAVY EQUIPMENT WITHIN THE STORMWATER DETENTION PIPE AREA IS ALLOWED WITHOUT THE INSTALLATION OF ASPHALT PAVEMENT, UNLESS APPROVED BY THE ENGINEER.

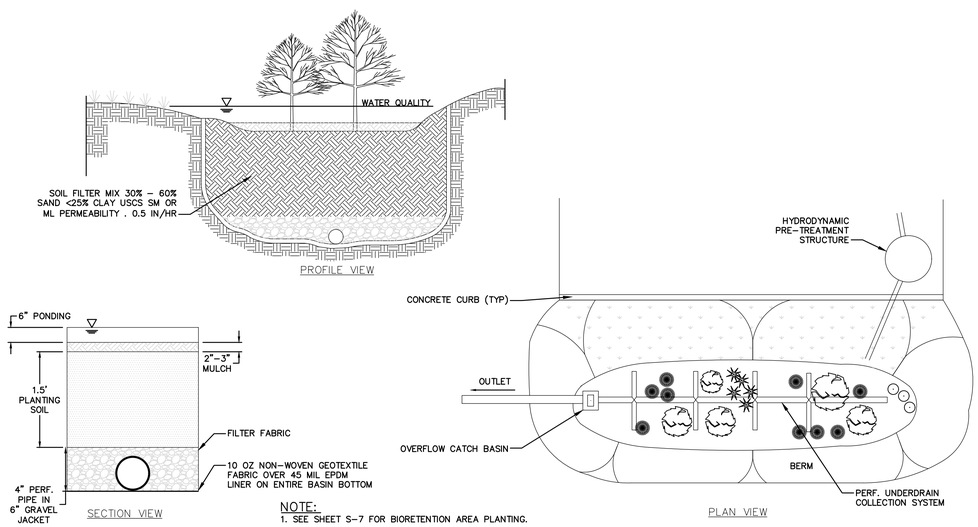
3 TYPICAL DETENTION SYSTEM CROSS SECTION

NOT TO SCALE



6 RIP-RAP OUTLET PROTECTION DETAIL

NOT TO SCALE



NOTE:

1. SEE SHEET S-7 FOR BIORETENTION AREA PLANTING.

7 BIORETENTION CROSS SECTION

NOT TO SCALE

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DOWNEY ENERGY
199 OLD ROUTE 9 TOWN OF WAPPINGERR. N.Y.

SITE DETAILS

DATE	5/1/2023
SCALE	AS SHOWN
DRAWN	MO
JOB	19-013
SHEET	S-15

STANDARD NOTES FOR COMMERCIAL PROJECTS (ONSITE WATER SOURCE AND SEWAGE DISPOSAL)- W/NO PWS

1. THE DESIGN, CONSTRUCTION AND INSTALLATION SHALL BE IN ACCORDANCE WITH THIS PLAN AND GENERALLY ACCEPTED STANDARDS IN EFFECT AT THE TIME OF CONSTRUCTION WHICH INCLUDE:
2. "NEW YORK STATE DESIGN STANDARDS FOR INTERMEDIATE SIZED WASTEWATER TREATMENT SYSTEMS", NYSDEC"
3. APPENDIX 75–A, WASTE TREATMENT – INDIVIDUAL HOUSEHOLD SYSTEMS, NEW YORK STATE SANITARY CODE." "RECOMMENDED STANDARDS FOR SEWAGE TREATMENT WORKS, (TEN STATES)."
4. "NEW YORK STATE DEPARTMENT OF HEALTH AND DUTCHESS COUNTY ENVIRONMENTAL HEALTH SERVICES DIVISION POLICIES, PROCEDURES AND STANDARDS."
5. "DUTCHESS COUNTY AND NEW YORK STATE SANITARY CODES."
6. "DUTCHESS COUNTY ENVIRONMENTAL HEALTH SERVICES DIVISION CERTIFICATE OF APPROVAL LETTER."
7. THIS PLAN IS APPROVED AS MEETING THE APPROPRIATE AND APPLIED TECHNICAL STANDARDS, GUIDELINES, POLICIES AND PROCEDURES FOR ARRANGEMENT OF SEWAGE DISPOSAL AND TREATMENT AND WATER SUPPLY FACILITIES.
8. UPON COMPLETION OF THE FACILITIES, THE FINISHED WORKS SHALL BE INSPECTED, TESTED, AND CERTIFIED COMPLETE TO THE DC EHSD BY THE NEW YORK STATE REGISTERED DESIGN PROFESSIONAL SUPERVISING CONSTRUCTION. NO PART OF THE FACILITIES SHALL BE PLACED INTO SERVICE UNTIL ACCEPTED BY THE DC EHSD.
9. APPROVAL OF ANY PLAN(S) OR AMENDMENT THERETO SHALL BE VALID FOR A PERIOD OF 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.
10. ALL WELLS AND ONSITE WASTEWATER TREATMENT SYSTEM EXISTING OR APPROVED WITHIN 300 FEET OF THE PROPOSED WELLS AND 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 AND WELL.
11. IT SHALL BE DEMONSTRATED BY THE CONTRACTOR TO THE DC EHSD FIELD INSPECTOR AND/OR 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 TANK MUST ALSO MEET ANY LOCAL TESTING REQUIREMENTS, INCLUDING POSSIBLE ELECTRICAL AND SAFETY STANDARDS.
12. ALL PROPOSED WELLS AND SERVICE LINES ON THIS PLAN ARE ACCESSIBLE FOR INSTALLATION AND PLACEMENT.
13. NO CELLAR, FOOTING, FLOOR, GARAGE, COOLER OR ROOF DRAINS SHALL BE DISCHARGED INTO THE ONSITE WASTEWATER TREATMENT SYSTEM OR WITHIN 50 FEET OF ANY WELL.
14. ALL BUILDINGS SHALL BE CONSTRUCTED AT AN ELEVATION HIGH ENOUGH TO ENSURE GRAVITY FLOW TO THE ONSITE WASTEWATER TREATMENT SYSTEM.
15. THERE SHALL BE NO VEHICULAR TRAFFIC OVER THE ONSITE WASTEWATER TREATMENT SYSTEM. PRIOR TO CONSTRUCTION, THE AREA OF THE SYSTEM SHALL BE STAKED OUT AND FENCED OFF.
16. ONSITE WASTEWATER TREATMENT SYSTEMS SHALL NOT BE INSTALLED IN WET OR FROZEN SOIL.
17. THE DC EHSD SHALL BE NOTIFIED PRIOR TO THE BACKFILLING OF ANY COMPLETED ONSITE WASTEWATER TREATMENT SYSTEM SO THAT A FINAL INSPECTION MAY BE PERFORMED.
18. THE DC EHSD SHALL BE NOTIFIED SIXTY DAYS PRIOR TO ANY CHANGE IN USE; USE CHANGES MAY REQUIRE RE APPROVAL BY THE DC EHSD.
19. ALL REQUIRED EROSION & SEDIMENT CONTROL AND STORMWATER POLLUTION PREVENTION WATER QUALITY & QUANTITY CONTROL STRUCTURES, PERMANENT AND TEMPORARY, ARE SHOWN ON THE PLANS.
20. THE UNDERSIGNED OWNERS OF THE PROPERTY HEREON STATE THAT THEY ARE FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENT TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.
21. ONSITE WASTEWATER TREATMENT SYSTEM IS DESIGNED FOR SANITARY SEWAGE ONLY. NO WASTES FROM RESTAURANTS, TAVERNS, DINERS, PIZZERIAS, FOOD SERVICE ESTABLISHMENTS, BAKERIES, DOCTOR'S OFFICES, DENTISTS, HAIR DRESSERS, SALONS, BEAUTY PARLORS, DRY CLEANERS, LAUNDROMATS, LAUNDRIES, PHOTOFINISHERS, METAL PLATERS, OR ANY OTHER PROCESS WASTES ARE ALLOWED.

ADDITIONAL NOTES FOR FILL SECTIONS

22. SEPTIC FILL SPECIFICATION: SAND AND GRAVEL FILL, WITH A STABILIZED PERCOLATION RATE WHICH IS LESS THAN OR EQUIVALENT TO THE PERCOLATION RATE OF THE VIRGIN SOIL, AND NO MORE THAN 15 MINUTES PER INCH SHALL BE USED.
23. A NEW YORK STATE REGISTERED DESIGN PROFESSIONAL SHALL CERTIFY IN WRITING THAT THE FILL MATERIAL IS IN THE PROPER LOCATION, OF THE PROPER QUANTITY AND DIMENSIONS, AND OF PROPER QUALITY. PROPER QUALITY MUST BE DEMONSTRATED BY STABILIZED PERCOLATION TESTS, THE RESULTS OF WHICH SHALL BE SUBMITTED WITH THE ENGINEER'S CERTIFICATION.
24. PRIOR TO THE PLACEMENT OF THE FILL, THE AREA OF THE OWTS SHALL BE CLEARED OF DEBRIS, AND ALL BRUSH, TREES, OR OTHER VEGETATION CUT TO THE LEVEL OF THE VIRGIN GROUND. NO TOPSOIL SHALL BE REMOVED UNLESS SPECIFICALLY INDICATED ON THE PLANS.

TEST PIT DATA (11/19/2020)

TEST PIT 1
0" – 6" TOPSOIL
6" – 4'–3" SANDY SILT LOAM
4'–3" – 6'–8" HARDPAN SILT (NO GW)

TEST PIT 2
0" – 3" TOPSOIL
3"–3' – 3" SANDY SILT LOAM
3'–3" – 7'–0" HARDPAN SILT (NO GW)

TEST PIT 3
0" – 6" TOPSOIL
6" – 5' SANDY SILT LOAM
5' – 7'–6" HARDPAN SILT (NO GW)

TEST PIT 4
0" – 6" TOPSOIL
6" – 2'–8" SANDY SILT LOAM
2'–8" – 6'–6" HARDPAN SILT (NO GW)

TEST PIT 5
0" – 6" TOPSOIL
6" – 3'–6" SANDY SILT LOAM
3'–6" – 6'–6" HARDPAN SILT (NO GW)

PERC PIT DATA (11/20/2020)

PT–1

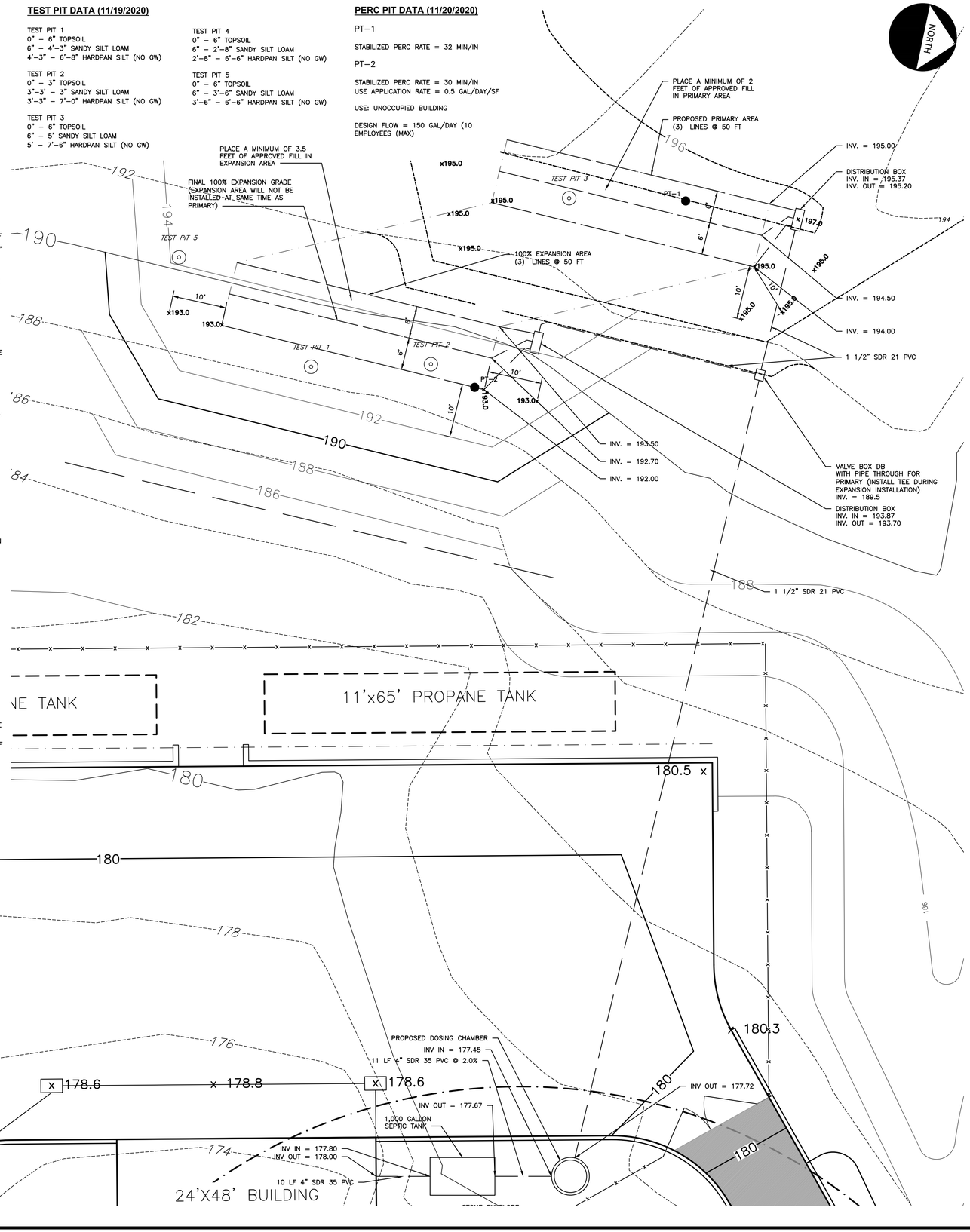
STABILIZED PERC RATE = 32 MIN/IN

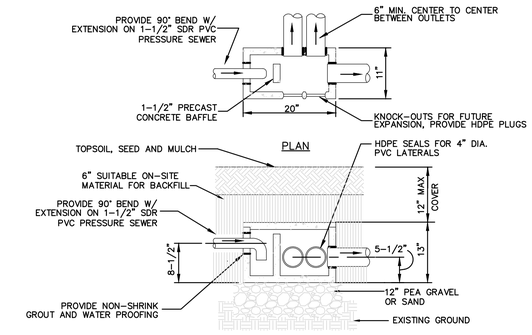
PT–2

STABILIZED PERC RATE = 30 MIN/IN
USE APPLICATION RATE = 0.5 GAL/DAY/SF

USE: UNOCCUPIED BUILDING

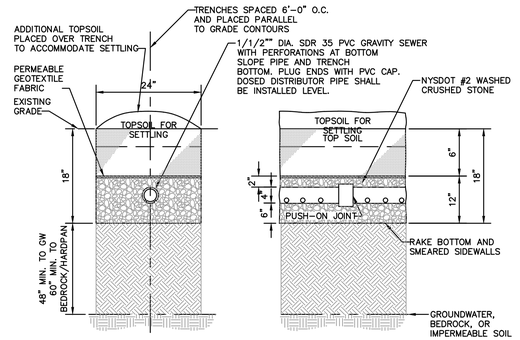
DESIGN FLOW = 150 GAL/DAY (10 EMPLOYEES (MAX)





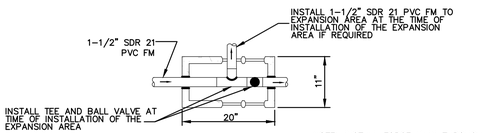
NOTES:
1. DISTRIBUTION BOX TO BE PROVIDED WITH PRE–FABRICATED SPEED LEVELERS AND LEVELED USING WATER.
2. FORT MILLER TYPE 1, DESIGN CASE 4 (NON–TRAFFIC) OR APPROVED EQUAL.

1 TYPE 1 DISTRIBUTION BOX (PRESSURE INLET)
NOT TO SCALE



NOTES:
1. IMPORTED BACKFILL SHALL BE TOPSOIL OR NATURAL RUN OF BANK SAND OR GRAVEL FREE OF ORGANIC MATERIAL AND ELONGATED PARTICLE AND HAVE A MAX PARTICLE SIZE OF ¾".

2 ABSORPTION TRENCH
NOT TO SCALE



3 VALVE BOX
NOT TO SCALE

2 OF 4 DCEHS APPROVAL

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PROPOSED LIQUID PROPANE STORAGE FACILITY
DOWNEY ENERGY
199 OLD ROUTE 9 TOWN OF WAPPINGERR. N.Y.

SUBSURFACE SEWEAGE DISPOSAL SYSTEM PLAN

DATE	5/1/2023
SCALE	1" = 10'
DRAWN	MO
JOB	19-013
SHEET	S-16

Appendix E

Deposition of Steven P. VanBuren

CERTIFIED
COPY

SUPREME COURT OF THE STATE OF NEW YORK
COUNTY OF DUTCHESS

----------X

DOWNEY ENERGY and NORTHEAST 40, LLC,

Plaintiffs,

-against- Index#2022-51174

TOWN OF WAPPINGER, PLANNING BOARD OF THE TOWN OF WAPPINGER, BRUCE FLOWER, RALPH MARINACCIO, ROBERT CERU, MARKOS PERATIKOS, PAUL FRENO, NICHOLAS MASELLI, THE TOWN BOARD OF THE TOWN OF WAPPINGER and "JOHN DOES AND JANE DOES 1-15",

Defendants.

----------X

DATE: March 17, 2023
Poughkeepsie, New York
11:07 a.m. - 11:40 a.m.

Frances M. Elmes, Reporter

DEPOSITION

OF

STEVEN P. VANBUREN
(Non-Party Witness)

APPEARANCES:

SAVAD CHURGIN, ESQS.
Attorneys for Plaintiffs
55 Old Nyack Turnpike, Suite 209
Nanuet, New York 10954
BY: DENNIS E. A. LYNCH, ESQ., of Counsel
Dennislynchesq@gmail.com

ALSO PRESENT:

ALFRED A. CAPPELLI, JR.

JOHN HART

STIPULATIONS

IT IS STIPULATED AND AGREED that the transcript may be signed before any Notary Public with the same force and effect as if signed before a clerk or a judge of the court.

IT IS FURTHER STIPULATED AND AGREED that the Examination Before Trial may be utilized for all purposes as provided by the CPLR.

IT IS FURTHER STIPULATED AND AGREED that all rights provided to all parties by the CPLR cannot be deemed waived and the appropriate sections of the CPLR shall be controlling with respect hereto.

* * * *

VanBuren

STEVEN P. VANBUREN, a witness herein, having been first duly sworn by a Notary Public within and for the State of New York, was examined and testified as follows:

* * * *

BY MR. LYNCH:

Q. Give your name and address, please, for the reporter.

A. Steven with a V, middle initial P, last name VanBuren, V-a-n-B-u-r-e-n.

Q. Good morning, Mr. VanBuren. My name is Dennis Lynch. Let me try to explain why you're here, what the purpose of this deposition is and what it involves, because you probably have general questions; okay?

I represent the plaintiffs with regard to litigation that was filed by Downey Energy and Northeast 40, LLC against the Town of Wappinger and it concerns the Downey energy project, that's generally what this litigation is about, just so you understand

VanBuren

that; okay? Let me show you a document.

MR. LYNCH: What's the next number, please?

THE COURT REPORTER: 20.

(PLAINTIFF'S EXHIBIT 20, SUBPOENA, RECEIVED AND MARKED FOR IDENTIFICATION)

Q. I want to show you a document which I've given you copy of, Mr. VanBuren, which you can take that home with you. And I'm giving you the exhibit I've actually marked, which we're going to keep here, and that Exhibit 20 I'm going to tell you is what they call a subpoena and non-party notice of deposition and that refers to the case, Mr. VanBuren, that this is involved with right now; do you understand that so far?

A. Yes.

Q. Okay. Your name came up at several points in time in this whole process and I'm just asking you questions about what your involvement was, what your recollections

are and if you know something you can tell me. If you don't know something, tell me that, too; do you understand that?

A. Yes, I do.

Q. Okay. At the end of this whole process you'll be given a transcript in writing typed up by the reporter. I'll get it, actually, I'll give it to you. You can review the transcript, you can make changes if you want on what the transcript says, then you'll notarize the transcript after you sign it, so notarize it and you'll mail it back to me. That's the general process; do you understand that, sir?

A. Yes.

Q. Okay. A few basic questions. Prior to coming to today's deposition did you take any medication or any other substance that would interfere with your ability to recall events or testify truthfully?

A. No.

Q. Okay. And prior to coming to today's deposition did you speak with anybody in preparation for your testimony?

VanBuren

A. No.

Q. Okay. Let me take a look --- have you take a look, if you would, please, at that particular Exhibit 20, and the second page of that particular exhibit, it asks that you bring whatever documents that you have with regard to the project known at Downey Energy; did you bring any documents with you today, sir?

A. Don't have any.

Q. Okay. Let's continue. Have you ever given a deposition before such as this?

A. Yes, I have.

Q. And without telling me the details, was it a civil deposition where --- (Interrupted)

A. Yes.

Q. Okay. And how many times have you been deposed before, approximately?

A. Three.

Q. Okay. So you have a general idea of what a deposition is; is that correct?

A. Yes, I do.

VanBuren

Q. Okay. And what's your date of birth, please?

A. XXXX XX, 1951.

Q. Okay. And what town do you reside in right now?

A. Town of Fishkill.

Q. Okay. Have you ever resided in the Town of Wappinger?

A. Yes.

Q. Okay. Tell me approximately when that was, sir.

A. 2001 to 2007.

Q. Okay. And whereabouts did you reside in the Town of Wappinger, if you can tell me?

A. Chelsea Road.

Q. Okay. And at the present time do you own any property in the Town of Wappinger?

A. No.

Q. Okay. And moving forward, when I say town from now on I just mean the Town of Wappinger; do you understand that, sir?

A. Understood.

VanBuren

Q. Okay. At the present time where are you employed?

A. Town of Fishkill.

Q. Okay. Are you employed in the building department for Fishkill?

A. I am.

Q. Okay. And how long have you been employed there, approximately?

A. 15 years.

Q. Okay. And before that what's your recent employment before the 15 years for the Town of Fishkill?

A. Indian Point Nuclear Plant, I was their fire protection supervisor from 1981 to 2007.

Q. Okay. And as the fire protection supervisor for Indian Point did your services or employment deal with liquid propane fires?

A. Yes, we had liquid propane on site.

Q. Okay. And were there any liquid propane fires at Indian Point when you were there?

VanBuren

A. Not fires, but leak.

Q. Okay. And how many leaks were there, approximately?

A. One.

Q. Okay. And do you have any recollection what year that might have been, if you know? And if you don't you can tell me that, too.

A. I'm going to say --- well, ballpark I would put it at 2001, 2002 timeframe.

Q. Okay. And was anybody injured as a result of that liquid propane leak?

A. No.

Q. Was there any property damage as a result of that liquid propane leak at Indian Point sometime ago?

A. No.

Q. Okay. And how did the property --- strike that. How did the liquid propane leak take place?

A. A cylinder was just old, we did a free seal on it.

Q. And how many gallons was the

VanBuren

cylinder involved?

A. 150.

Q. 150?

A. Yeah.

Q. Okay. And what was that particular liquid propane used for at Indian Point?

A. I believe it was for supplemental heating for outbuildings.

Q. Okay. In addition to your employment do you have any past or current association with any firemanic activity or offices?

A. I do.

Q. Okay. Tell me what they are, sir.

A. Deputy Fire Coordinator for the County of Dutchess. I have a battalion under me, which is Battalion 7.

Q. Let's just start with the first one, Deputy Coordinator, how long did you hold that position, approximately?

A. I'm going to say...

Q. A ballpark is fine.

VanBuren

A. I'm going to get you close, I can probably get you real close. 25 to 26 years for that.

Q. Okay. And you mentioned something about a battalion?

A. Battalion 7.

Q. And what is that?

A. That's the southwest quadrant of the county, that's where Hughsonville is.

Q. Okay. And exactly what do you do with regard to Battalion 7, just generally over the years?

A. I respond to any mutual aid fires within the battalion.

Q. And are you a member of any fire company at the present time?

A. Fire company?

Q. Yes.

A. I'm a life member of Lewis Tompkins Hose in Beacon and I'm an honorary life member of New Hamburg.

Q. Okay. The Hughsonville Fire Company, were you ever a member of that particular fire company?

VanBuren

A. No, no.

Q. Okay. In all your experience as a firefighter, and I'm not talking about Indian Point, have you ever had occasion to fight a live, active liquid propane fire?

A. Within the last 12 months.

Q. Okay. And where was that, sir?

A. Barton Orchards.

Q. And what did that particular liquid propane fire consist of?

A. Well, it consisted of Bottini, who was the delivery company, their truck, two large commercial buildings, a variety of farm equipment and private vehicles.

Q. And when you say farm equipment and private vehicles what do you mean by that, sir?

A. Tractors, equipment they use in the fields, you know.

Q. When you say they, who are you referring to?

A. Barton Orchards.

Q. Okay.

A. It's an orchard with a big

VanBuren

public assembly, barn, snack bar, hall, stuff like that.

Q. Okay. And do you have an approximate date as to when this --- (Interrupted)

A. August.

MR. LYNCH: Off the record.

(DISCUSSION OFF THE RECORD)

Q. You said August, sir; was that 2022?

A. That's correct.

Q. Okay. And was anyone injured in that particular August '22 liquid propane fire?

A. Thank god, no.

Q. Okay. And you responded to that fire in what capacity?

A. The Dutchess County Hazmat Team Deputy Coordinator.

Q. Okay. And, by the way, if at anytime during today's deposition you want to take a break --- (Interrupted)

VanBuren

A. Yup.

Q. --- or you need to consult with your phone --- (Interrupted)

A. Okay.

Q. --- or for any reason, feel free to do that; do you understand that, sir?

A. I understand, thanks.

Q. Now, you mentioned the deputy of the Dutchess County hazmat team?

A. Correct.

Q. Tell me what that is, sir.

A. Well, that's a county organization under the Department of Emergency Response that provides hazmat response to all the fire departments in Dutchess County.

MR. LYNCH: Off the record.

(DISCUSSION OFF THE RECORD)

Q. We just took a brief break. The Dutchess County Hazmat Team, can you tell me who was involved in that particular team, is it yourself and other people or ---

VanBuren

(Interrupted)

A. Yes, I'm the deputy coordinator, I have two assistant deputy coordinators. I have a captain, I have two lieutenants, I have a safety officer and I have approximately 10 to 12 additional members.

Q. Okay. Is that a paid position or volunteer position?

A. No, no, it's all volunteer, everything.

Q. And approximately how long have you been a volunteer firefighter, approximately?

A. 54 years.

Q. Okay. Other than the 2022 incident at the orchard, and I believe you said August, have you ever had any occasion to fight a live liquid propane fire in the over 50 years of being a firefighter?

A. Just small cylinders.

Q. Okay. Would that be ---

(Interrupted)

A. Barbecue grills, stuff like that.

VanBuren

Q. Okay. Tell me, if you would, to the best of your recollection what training, if any, the hazmat team does for fighting liquid propane fires, if at all.

A. Well, we do training all the time.

Q. Okay. Just referencing liquid propane fires.

A. I understand that.

Q. Please continue.

A. Liquid propane is flammable gas 2.1, we train on all the classes of hazmat, that's just one of them. Recently one of the ways to handle these propane leaks is to burn it off, it's called a flaring device, so we now have that in our arsenal of tools on the hazmat truck where we can go to tanks that are overfilled or leaking, connect up, run hose out and then burn it off of a stand so that you drop the pressure in the tank.

Q. Okay. Let me show you a document which we marked earlier today as Plaintiff's Number 13. Just take a look at that, sir, it's multi-pages, and when you

VanBuren

finish your review just look up and let me know you have. Off the record.

(DISCUSSION OFF THE RECORD)

Q. Do you recognize that particular document, sir, marked as Plaintiff's 13?

A. No, I've never seen it before.

Q. Okay. The Dutchess County Department of Emergency Response, does it put out a county training center standard operating guidelines?

A. Yes.

Q. Okay. And do you know if they put anything out regarding such guidelines in October 2021?

A. If you're telling me that's from October 2021 I've got to believe you.

Q. No, I'm just indicating what the front page says.

A. Yeah, that's just --- you know, that's for the use of the props at the training center.

Q. So tell me about the use of the

props at the training center, sir.

A. Well, they're used by all fire departments in Dutchess County, so the county has a standard operating guide there for the county fire instructors when they're teaching response.

Q. Does the county have employees or volunteers such as yourself do a liquid propane training to fight fires or are there people from outside of Dutchess County that are involved in that training?

A. Well, there can always be the state fire instructors that are involved, it all depends on what class they're running.

Q. Let's direct your attention only to classes on fighting liquid propane fires, are those classes that you teach in any capacity with regard to the County of Dutchess?

A. No, I don't teach any county classes. I worry about my hazmat team, I have to get trained as well as they do.

Q. Okay. Are there people that teach you and members of your hazmat team

VanBuren

about fighting live liquid propane fires?

A. Yes.

Q. And are they state people, if you know?

A. State, International Association of Fire Chiefs. We go to many seminars and courses throughout the --- throughout the year. Probably the most notable one is the International Association of Fire Chiefs hazmat seminar which occurs in Baltimore every year.

Q. Okay. Sir, I show you a document marked at a prior deposition on March 10th as Exhibit 18. If you would take a look at that, sir, it's a three page document and it says on the top "Resume, John T. Hart", H-A-R-T. Take a look at that, sir, if you would, please. Sir, if you would, have you ever met John T. Hart, who is present today, prior to today?

A. I believe I have.

Q. Okay.

A. He says he remembers me, so...

MR. HART: How could I forget.

VanBuren

BY MR. LYNCH:

Q. With regard to that Exhibit 18, sir, I want you to assume that all the certifications on the front page are correct and accurate.

A. It's a given.

Q. Okay. Would you agree with me that Mr. Hart is a qualified expert in liquid propane matters?

A. Without a doubt.

Q. Okay. And would you agree with me, sir, if he gives an opinion on something it would be an honest opinion based upon his experience in fighting liquid propane fires?

A. Sure, yes.

Q. Okay. Let me direct your attention, if I can, to a meeting that occurred, and I'm going to give you a document that might help refresh your recollection as to when it occurred. If you would, sir, take a look at an Exhibit 16 which is from today's deposition. I'm going to represent to you, sir, it's an e-mail from Dan Silvestri or a document that Dan

VanBuren

Silvestri had authored.

Just take a look at it, if you would, just on the front page, and specifically at the bottom of the front page. If you want to go through the whole document and read it, please feel free to do that. If when you're finished looking at it, please look up and tell me. And, sir, on the bottom of that particular exhibit it references an April 8th of 2021 meeting; do you see that, sir?

A. Yup.

Q. And it references your name along with John Hart; do you see that, sir?

A. Yep.

Q. It also references other people's names, too; do you see that, sir?

A. Yes, I do.

Q. Does looking at that particular document refresh your recollection if on or about April 8th of 2021 you attended a meeting --- (Interrupted)

A. Yes.

Q. --- in which John Hart was

present?

A. Yes.

Q. Okay. And can you tell me generally what you recollect about the meeting, if you can recall?

A. Dan Silvestri asked me to come, being that he's the commissioner of the Rombout Fire District and his property is almost adjacent to this property, he had concerns about the tanks and he asked me if I would come and give my opinion on the tanks.

Q. Okay. And at this time, being April 8th of 2021, did you have an understanding that the tanks, we're referring now to liquid propane tanks, that they were aboveground tanks?

A. At the time they were aboveground.

Q. Okay. And do you recollect if prior to today you learned that the proposed Downey Energy farms were to be below ground?

A. Yes.

Q. Okay. And --- (Interrupted)

A. It alleviates a lot of concerns.

VanBuren

Q. Okay. Off the record.

(DISCUSSION OFF THE RECORD)

Q. Going back to the August --- sorry, going back to the April 8th of 2021 meeting where you and Mr. Hart were present, do you have any recollection of Mr. Hart showing this particular piece of equipment marked as Plaintiff's 17? Off the record.

(DISCUSSION OFF THE RECORD)

Q. Mr. VanBuren, that particular Exhibit 17, my understanding is it's called an internal valve, sir. Do you have any recollection of Mr. Hart showing you that at that April 8th of 2021 meeting?

A. I can't honestly remember if he showed it or didn't. If John says he did, he did.

Q. That's okay.

A. I don't specifically remember the valve itself.

VanBuren

Q. That's okay. Would it be fair to say that that particular Exhibit 17 valve is something that allows for a shutoff of any liquid propane very quickly, if you know?

A. It does.

Q. Okay. I also show you again an item which is from today's deposition as Plaintiff's 18, it's approximately a one and a half inch disc of a metal substance. Do you have any recollection if Mr. Hart had shown you on the April 8, 2021 meeting that that was the general thickness of any tank that was proposed on the Downey farms?

A. I can't remember that.

Q. That's okay. Let me show you --- off the record.

(DISCUSSION OFF THE RECORD)

Q. Let me show you a document marked as Exhibit 19, which I'm told is a steel back check valve; do you have any recollection of seeing that particular valve at the April 8, 2021 meeting?

VanBuren

A. I honestly can't say I remember or don't remember.

Q. Okay. That's fair. Just trying to move this deposition quicker. You indicated that once you heard that the --- or once you understood that the tanks were going to be buried underground that alleviated some concerns you have; do you recall saying that a few minutes ago?

A. Oh, yes.

Q. Tell me what the concerns were that were eliminated by having the tanks buried in the ground as best you recall concerning the Downey project?

A. Mainly a BLEVE.

Q. And to the best of your knowledge would having the tanks underground eliminate the potential for a BLEVE?

A. Correct.

Q. Any other concerns that were eliminated based upon the tanks being underground except for the BLEVE being eliminated?

A. No, I have no concerns for the

tanks underground, it would just be the piping system above the ground.

Q. Okay. Can you tell me what your concerns --- are these present concerns you have about the piping above the ground?

A. No, because I think they can be protected with barriers.

Q. Okay. And as you sit here today, knowing that the tanks are going to be underground, are there any concerns that you have about the ability to fight any liquid propane fires at the Downey project, assuming it gets approved?

A. Yes.

Q. Tell me what your concerns are.

A. Well, first of all, there's no municipal water system in the area, so the water--- (Interrupted)

Q. Tell me --- sorry, that's okay.

A. Water would have to be tanked in by tankers.

Q. Okay.

A. Okay. Now, if we eliminate the tanks aboveground the quantity of water that

VanBuren

we would need goes greatly down.

Q. So let's assume for the sake of discussion --- in fact, don't even assume it, I believe that in Exhibit 16 Mr. Silvestri makes reference on the second page about a 30,000 gallon water storage tank. Take a look at this, if you would, sir. Off the record.

(DISCUSSION OFF THE RECORD)

A. Once again, with the tanks buried the need for this isn't there.

Q. Just for the record, when you say this you mean the 30,000 gallon water tank; correct?

A. Correct.

Q. Let's assume, if you can, and I'm going to represent, I'm going to tell you that the Downey project currently as contemplated, meaning underground, will still have a 30,000 gallon water supply at the site, assume that; would that eliminate your concerns about the water to fight fires?

VanBuren

A. Oh, without a doubt.

Q. Okay. And that 30,000 gallon tank, water tank, if it was there at the site of the Downey project that could also be used by local firefighters to fight fires on Route 9 if any trucks or accidents took place on Route 9, wouldn't that be fair also?

A. If the --- (Interrupted)

Q. In that vicinity.

A. If the facility would allow it.

Q. Right.

A. Since it's private equipment they can say you're not, you know...

Q. Right. And if I were to represent to you that the Downey project will allow firefighters to have access to that 30,000 water gallon with nothing to do with the Downey tanks but for general firemanic purposes would that improve safety in that area?

A. It would enhance it greatly, because right now there's no water systems, there's no hydrants, there's no --- because this involves a pump, as well; correct? So

VanBuren

we don't have anything like that in that area of the town.

Q. Right.

A. It's on the --- it's on the --- just over the line from my town is the Town of Fishkill where I'm the fire inspector, but it's at the south end of the Hughsonville Fire District, which I'm a deputy coordinator for, so, you know, that's how I get involved with this.

Q. So let's assume for the sake of today's deposition --- (Interrupted)

A. Yeah.

MR. LYNCH: Off the record.

(DISCUSSION OFF THE RECORD)

Q. --- that there is a 30,000 gallon water tank that is at the site that is available to all the local firefighters for other purposes; would that address your water concerns about the Downey project?

A. It would.

Q. Okay. What other concerns, if

VanBuren

any, do you have today if I were to tell you that the Downey project will have a 30,000 gallon water source for use for the Downey site and also for the general firefighting purposes and they'll also have a monitor --- (Interrupted)

MR. HART: Unmanned monitor built onto the pump set on the --- (Interrupted)

MR. LYNCH: Whoa, whoa, whoa. Okay. Let me talk. Just for the record, I'm going to ask Mr. Hart to say that so that he can say it correctly. Mr. Hart, what else also is proposed for this particular project so I don't mess it up when I say it?

MR. HART: The 30,000 gallon water storage will have a pump and it will also be hooked up to an unmanned monitor which will be preset at the points of transfer, point of transfer, because it will be a single point.

THE WITNESS: Point.

MR. HART: And the tanks will be

VanBuren

buried and mounded and they'll have a knee wall so nothing can broach them but they can still dissipate the product. And they're moved further back, so I think we have a 3 to 1 or a 4 to 1 safety factor now for the gas to dissipate.

THE WITNESS: John, go back to what you just said, dissipate. Are we going to have gas detectors that if we have a leak --- (Interrupted)

MR. HART: I don't like --- (Interrupted)

MR. LYNCH: Just one second, let him finish the question.

MR. HART: It's not out of --- (Interrupted)

MR. LYNCH: No, no.

MR. HART: Go ahead.

MR. LYNCH: Sorry, are you finished?

THE WITNESS: No.

MR. LYNCH: Okay. That's what I said, let him finish.

VanBuren

THE WITNESS: We have the water, we have the unmanned monitor, we have detectors. The real concern is --- the only concern I have left is the fact that these tanks are going to be on the top of that rise with everything --- with the molecular weight of propane coming down it's going to come down right where the fire department has got to come in. And I'm thinking if we can somehow, with a gas detector, initiate that system to disburse the vapor cloud instead of guys driving into it, it's a piece of cake then.

MR. HART: Am I allowed to respond?

MR. LYNCH: Yeah, yeah. Just for the record, I'm letting Mr. Hart respond to Mr. VanBuren's concerns with Mr. VanBuren's permission. Go ahead, Mr. Hart.

MR. HART: There are pros and cons to the Sniffer, technical term, to the gas detector.

VanBuren

THE WITNESS: Okay.

MR. HART: Because every time we did a transfer, at the end of the transfer, although it's a small amount of gas, we vent some propane and it, over the years, has had a tendency to have some issues with false positives. Having said that, depending on where we placed it and how it was maintained I have put them in. It would be down by the swamp because that's where all the gas is going to go anyway.

THE WITNESS: You and I both know that, we understand that, that's the science of it.

MR. HART: And it would be hooked up to --- it would be hooked up to the alarm company typically.

THE WITNESS: Yup.

MR. HART: That's what we did in the Town of Poughkeepsie on Vanderhisen(Phonetic) Avenue or whatever with the 430's there, but it has to be done right otherwise it's more of a

VanBuren

problem than a benefit to you.

Number 2, you're going to have two accesses, south and north now, and all you're going to have to do is hit a button to energize the site. So if you can hit a button with an inch and a half hose stream you don't even have to go on the site to activate it.

So I'm not saying that the gas detector is not feasible, but it's not in my top ten, because of the way that business is conducted you can have --- and if a deer in the summertime gets hit and dies in the swamp and the wind blows back toward the detector it's going to set it off, too, because it can't --- they're not good enough just to sniff propane, and that's been my experience.

I got called out at 2 o'clock in the morning on some things that weren't propane leaks because of the Sniffers.

MR. LYNCH: But, Mr. Hart, Mr. VanBuren can respond if he wants to know anything.

VanBuren

THE WITNESS: Well, John, thank you for the update. You just updated me. The last time I saw this I didn't know there were two accesses to the site, north and south. There was only going to be the one access, they were going to put one hydrant on that access, that was it, you know. And, you know, the fact that now --- because this was the very early stages when you and I met the first time and a lot of these concerns have been handled.

I told Dan Silvestri the fact that they're burying the tanks takes away the BLEVE issue. So the only concern I have, as the county hazmat guy and the battalion coordinator for the Hughsonville Fire District, is the fact that it's on a rise, and you and I know that propane is going to go down, and if we can disperse those vapors so the guys coming in are safe I don't have an issue.

MR. LYNCH: Can that be done?

VanBuren

MR. HART: Yes. And it ---

(Interrupted)

MR. LYNCH: Okay. That's it, your answer is yes.

MR. HART: Okay.

BY MR. LYNCH:

Q. Mr. VanBuren, any other questions that you have about the safety, assuming what Mr. Hart says is correct regarding the Downey Energy project?

A. I would only ask that Downey Energy deeps the Hughsonville Fire District and their mutual aid partners in the loop with site access, site training, site familiarization going forward so that everybody can understand everything that John's talking about.

I understand it, but your volunteer firefighter who might be an 18 year old kid doesn't have an idea. When I say to him vapor density, he doesn't know what we're talking about. When I say to him molecular weight, he doesn't know what we're talking about. John and I understand that, okay.

VanBuren

You can see by the picture that the propane doesn't go up, it goes down, and if we can alleviate that with what John says is a dispersion type nozzle for a leak, then there's no reason why this can't be safely installed and maintained.

MR. LYNCH: Thank you. No further questions. Done.

THE COURT REPORTER: Once again, Mr. Lynch, are you ordering an original and one, hard copy and pdf, of this transcript?

MR. LYNCH: Yes, please. Thank you.

(Whereupon the deposition of STEVEN P. VANBUREN, was completed at 11:40 a.m.)

* * * *

ACKNOWLEDGEMENT OF DEPONENT

I, STEVEN P. VANBUREN, do hereby acknowledge I have read and examined the foregoing pages of testimony, and the same is a true, correct and complete transcription of the testimony given by me, and any changes or corrections, if any, appear in the attached errata sheet signed by me.

_____ _____
DATE STEVEN P. VANBUREN

Sworn to before me this_____
day of_____, 2023.

X_____
NOTARY PUBLIC

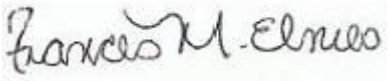
STATE OF NEW YORK)
) ss:
COUNTY OF DUTCHESS)

I, FRANCES M. ELMES, a stenotype reporter and Notary Public within and for the State of New York, do hereby certify:

That, STEVEN P. VANBUREN, the witness whose deposition is hereinbefore set forth, was duly sworn by me, and that the transcript of said deposition is a true record of the testimony given by such witness.

I further certify that I am not related to any of the parties to this action by blood or marriage, and that I am in no way interested in the outcome of this matter.

IN WITNESS WHEREOF, I have hereunto set my hand this 24th day of March, 2023.

X 
FRANCES M. ELMES

I N D E X

PLAINTIFF'S EXHIBITS
MARKED FOR IDENTIFICATION

DEFENDANT'S EXHIBITS
MARKED FOR IDENTIFICATION

DOCUMENTS AND INFORMATION REQUESTED

QUESTIONS MARKED FOR RULING

ERRATA SHEET FOR THE TRANSCRIPT OF:
STEVEN P. VANBUREN
March 17, 2023

PAGE	LINE	CHANGE/CORRECTION	REASON
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_____ _____
STEVEN P. VANBUREN DATE

Appendix F

Letter from NYS Department of Transportation

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

KATHY HOCHUL
Governor

MARIE THERESE DOMINGUEZ
Commissioner

LANCE MacMILLAN, P.E.
Regional Director

December 21, 2022

Bea Ogunti
Zoning/Planning Board Secretary
20 Middlebush Road
Wappingers Falls, New York 12590

Re: NYSDOT SEQR 22-231
Downey Energy Liquid Propane Storage
Town of Wappinger
Dutchess County

Dear Town of Wappinger,

After speaking with Alfred Cappelli, the architect for this project, on Monday December 5, 2022, the New York State Department of Transportation (NYSDOT) has no further questions or comments and is no longer requiring a full Traffic Impact Study. Please see the attached correspondence for details.

If there are any questions, please feel free to contact me at: 845-878-6363 or at Cassandra.Bibbo@dot.ny.gov .

Sincerely,

Cassandra Bibbo

Cassandra Bibbo, EIT
Assistant Engineer, Residency 8-3

New York State Department of Transportation, Hudson Valley
106 Ludingtonville Road, Holmes, NY 12531
(845) 878-6363 | Cassandra.Bibbo@dot.ny.gov | www.dot.ny.gov

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

Bibbo, Cassandra (DOT)

From: Bibbo, Cassandra (DOT)
Sent: Monday, December 5, 2022 11:16 AM
To: acappe2102@aol.com
Subject: RE: Downey LP Propane Storage, T/O Wappingers

I can reach out if youd like and let them know

Cassandra

From: acappe2102@aol.com <acappe2102@aol.com>
Sent: Monday, December 5, 2022 11:12 AM
To: Bibbo, Cassandra (DOT) <Cassandra.Bibbo@dot.ny.gov>
Subject: Re: Downey LP Propane Storage, T/O Wappingers

ty

will you be sending anything to the town regarding this?

-----Original Message-----
From: Bibbo, Cassandra (DOT) <Cassandra.Bibbo@dot.ny.gov>
To: acappe2102@aol.com <acappe2102@aol.com>
Sent: Mon, Dec 5, 2022 11:08 am
Subject: RE: Downey LP Propane Storage, T/O Wappingers

Thank you for this information. At this time, DOT has no further questions or comments on this project.

Thank you,
Cassandra Bibbo, EIT
Permit Engineer, Residency 8-3

New York State Department of Transportation, Hudson Valley
106 Ludingtonville Road, Holmes, NY 12531
(845) 878-6363 | Cassandra.Bibbo@dot.ny.gov | www.dot.ny.gov

NEW YORK STATE OF OPPORTUNITY. Department of Transportation

From: acappe2102@aol.com <acappe2102@aol.com>
Sent: Monday, December 5, 2022 10:45 AM
To: Bibbo, Cassandra (DOT) <Cassandra.Bibbo@dot.ny.gov>
Subject: Re: Downey LP Propane Storage, T/O Wappingers

Cassandra,

I will send you a complete set, not a problem

We were not asked nor did we prepare a traffic study as the facility is strictly wholesale with the larger tankers filling the on-site storange tanks maybe two or three times a week and the "bobcat" deliver trucks used for daily delivery to businesses and residential will fill up in the morning and once after lunch, perhaps a total of 6-8 bobcats at each time, so the traffic generated is not huge.

Old Route 9 where we will entering and exiting the facility, with the exception of a few older residences is primarily an industrial area.

I will send you what I have nonetheless, and you can make a determination, and whatever you need we will provide.

Thank you for your quick response

al cappelli
architect

-----Original Message-----
From: Bibbo, Cassandra (DOT) <Cassandra.Bibbo@dot.ny.gov>
To: acappe2102@aol.com <acappe2102@aol.com>
Sent: Mon, Dec 5, 2022 10:27 am
Subject: RE: Downey LP Propane Storage, T/O Wappingers

Hello Alfred,

Sadly, DOT is not the most organized department and this was the first submission I had ever received on this project. The submission I received did not include a set of plans so It was unclear whether you were proposing to enter from Route 9 or from old route 9 which is why I asked for plans. As for the traffic study if you have one that would be helpful for us to look over as this may impact our signal system. If you don't have a full TIS, any traffic information would suffice.

Thank you,

Cassandra Bibbo, EIT
Permit Engineer, Residency 8-3

New York State Department of Transportation, Hudson Valley
106 Ludingtonville Road, Holmes, NY 12531
(845) 878-6363 | Cassandra.Bibbo@dot.ny.gov | www.dot.ny.gov

From: acappe2102@aol.com <acappe2102@aol.com>
Sent: Monday, December 5, 2022 10:20 AM
To: Bibbo, Cassandra (DOT) <Cassandra.Bibbo@dot.ny.gov>
Subject: Downey LP Propane Storage, T/O Wappingers

Cassandra,

We are the project Architect for the above referenced project for which you submitted a memo to the Town on Nov. 25, 2022.

This project has been ongoing since 2019 and was distributed previously to all agencies at the time of our earlier submissions, with no response from NYSDOT. Please let me know what I can do to get you the info you need to better understand the project.

This facility is not exiting or entering on NYS Rt. 9 and was wondering NYSDOT's interest in this project.

Let me know and I can forward our complete site plan to you.

As always, thank you for your time.

Alfred Cappelli
Architect

Appendix G

IPaC Endangered Species Report

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Dutchess County, New York

Local office

New York Ecological Services Field Office

(607) 753-9334
(607) 753-9699
fw5es_nyfo@fws.gov

3817 Luker Road
Cortland, NY 13045-9385

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Indiana Bat Myotis sodalis Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat Myotis septentrionalis Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Endangered

Reptiles

NAME	STATUS
Bog Turtle Glyptemys muhlenbergii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6962	Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Sep 1 to Aug 31
Belted Kingfisher *Megaceryle alcyon* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 15 to Jul 25
Black-billed Cuckoo *Coccyzus erythropthalmus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Black-capped Chickadee *Poecile atricapillus practicus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 10 to Jul 31
Blue-winged Warbler *Vermivora pinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 1 to Jun 30
Canada Warbler *Cardellina canadensis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Cerulean Warbler *Dendroica cerulea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 20 to Jul 20
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
Eastern Meadowlark *Sturnella magna* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 25 to Aug 31

Eastern Whip-poor-will Antrostomus vociferus — Breeds May 1 to Aug 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Evening Grosbeak Coccothraustes vespertinus — Breeds May 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Lesser Yellowlegs Tringa flavipes — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9679

Prairie Warbler Dendroica discolor — Breeds May 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Prothonotary Warbler Protonotaria citrea — Breeds Apr 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Red-headed Woodpecker Melanerpes erythrocephalus — Breeds May 10 to Sep 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Rusty Blackbird Euphagus carolinus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Wood Thrush Hylocichla mustelina — Breeds May 10 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

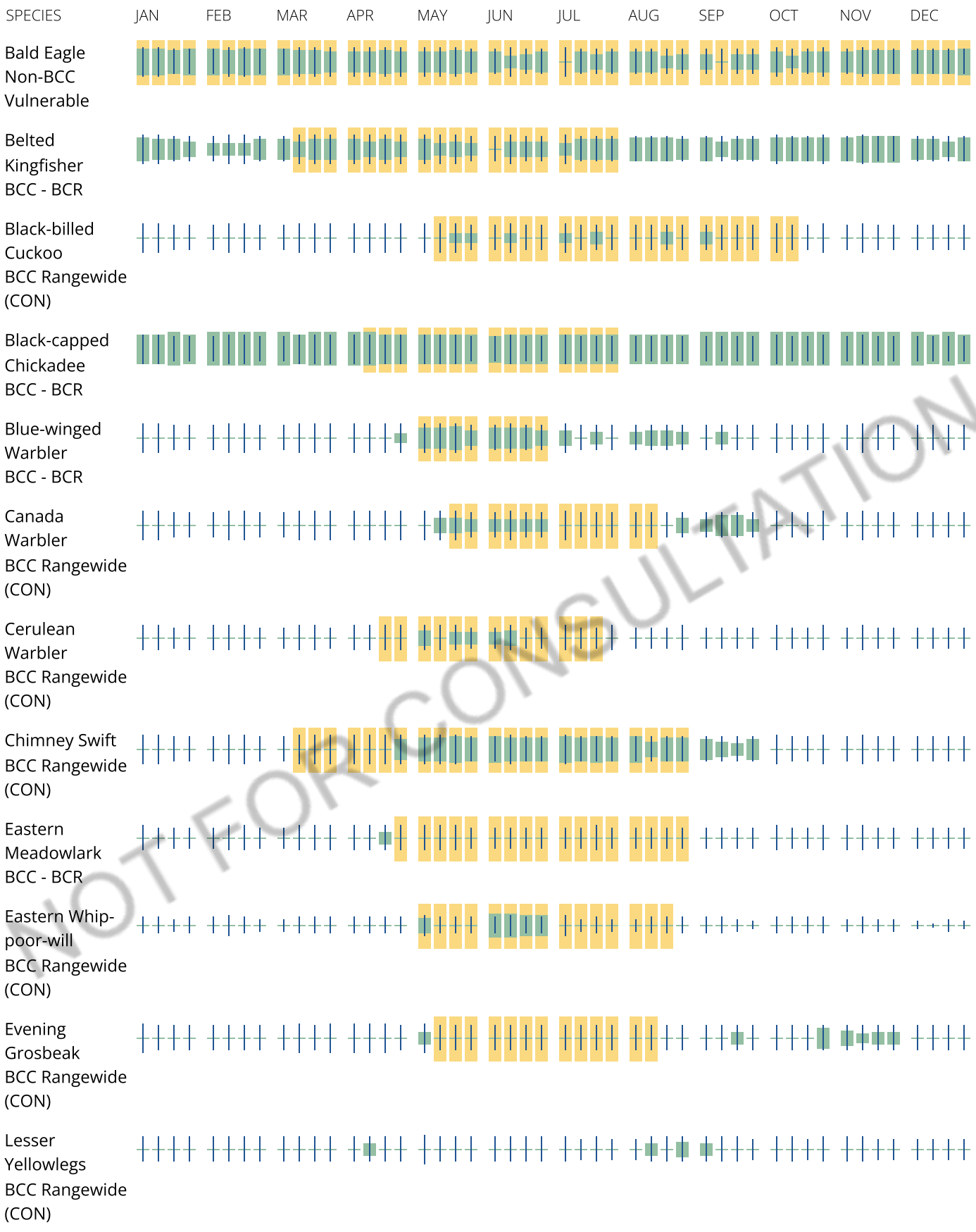
Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

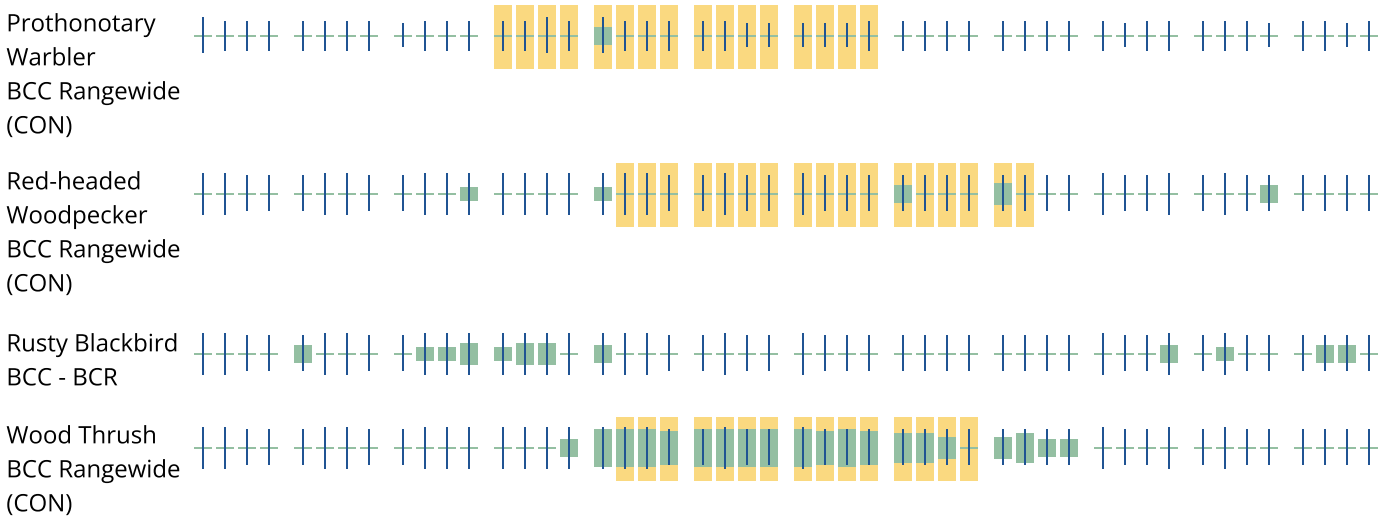
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

▪ probability of presence ▪ breeding season | survey effort – no data





Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory

(NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should

seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Appendix H

Operational Procedures, Safety Features & Training Practices

OPERATIONAL PROCEDURES, SAFETY FEATURES & TRAINING PRACTICES

FOR

DOWNEY ENERGY

LIQUID PROPANE BULK FACILITY

OLD ROUTE 9

TOWN OF WAPPINGERS, DUTCHESS COUNTY, NY

PREPARED BY:

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JUNE 10, 2019

JPA Energy Consulting LLC

June 10, 2019

Operational Procedures, Safety Features and Training Practices for Downey Energy proposed Propane Bulk Facility.

To give a better understanding of the Appearance, Operation, Safety and Training of the proposed Propane Facility, I've listed a brief outline.

The property is 6.29 acres in size. The propane facility would consist of two new 45,000 gallon ASME propane tanks. These tanks are 69 feet long; 11 feet in diameter and 14 feet high in the concrete piers. The tanks are constructed of ¾ inches steel and designed to ASME standards. The tanks are normally painted white in color.

The facility would be operated solely by Downey Energy and would not serve as a wholesale terminal to other surrounding energy companies. It will not serve the general public for filling barbecue tanks or other small tanks. Tanks for feature customers will be stored on site. These tanks are to be installed as Downey add new customers in the community.

Deliveries would be made by authorized and scheduled propane transports, to fill the storage tanks. Delivery trucks, commonly referred to as bobtails would then load and make deliveries to homes and businesses within the community. Bobtails can vary in size but typically hold just under 3,000 gallons and would make trips in to the facility 5 to 6 times a day in the winter. Less trips are required in the summer. Filling in the morning and mid-day. There are required safeties on delivery trucks and transports to reduce the risk of accidental releases. These include range inhibitors; internal valves; smart hoses and emergency shut off valves; excess flows and back checks. These trucks are required to meet State and Federal Motor Carrier regulations.

The bulk plant as designed and constructed would follow NFPA 58 edition 2014 code for Liquefied Petroleum Gas, as recognized by the State of New York. These features include: emergency shut off valves; back checks; internal valves; hydrostatic reliefs; pressure relief valves; transfer area valves and a bulkhead break-away design. A security chain link fence and cameras would be installed. Crash protection will be place around the plant to protect piping and piers from trucks and plows.

In addition, all company personnel having access and conducting product transfer at this facility are CETP (Certified Employee Training Program) trained and qualified in these procedures. CETP is a standardized training program for the propane industry, that has been in use since 1987. The program provides a formal structure for testing and verifies propane employees'

knowledge and skills to perform their work safely and effectively. This includes common carriers that off load at the facility.

There are a number of documents that must be generated in the evaluation of the facility and upon construction for compliance. These include the Fire Safety Analysis; Operation and Maintenance Plan; Hazmat Plan and an Emergency Action Plan. A Fire Safety Analysis is a State and Federal Requirement for all propane installation of 4,001 gallons or greater. This report was developed by the National Fire Protection Assoc. and the National Propane Gas Association. (NFPA 58 edition 2014 sections 6.27.3-6.27.3.6) It assess the design; hazards and capabilities of local responders. The report is developed with local input from the designated jurisdictional person(s) and reviewed by Fire Services. Operation and Maintenance Plan is required by NFPA 58 edition 2014; Chapter 14. It outlines the operating procedures appropriate for the facility including inspections and maintenance of the equipment. Hazmat Training is part of the Department of Transportation code 49 CFR 172.704. The Emergency Action Plan is an OSHA requirement for 29 CFR1910.38 and may or may not apply to this facility. There must be 10 or more employees for it to apply. Initially I do not believe it will apply.

I recommended that site specific propane training be provided for Fire Services and Mutual aid. This training could be conducted by myself or another member of the New Propane Gas Association Emergency Response Committee. There is also more extensive off site training for propane emergency available through the NYPGA.

Normal operation for the facility would be Monday through Friday during business hours. An occasional delivery might need to be made in the evening or on a weekend in the winter.

I hope this gives a better understanding of the Appearance; Operation; Safety and Training involved in a Propane Bulk Facility.

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Biographical Information

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Jody Ameden has over 25 years of dedicated experience in the propane industry. Jody formed Jody Pratt Ameden Energy Consulting LLC to provide propane industry consulting services. Services include product supply sourcing, bulk plant construction and permitting, safety training, retail marketing and operations, tank and truck purchasing. Clients are primarily retail oil and propane companies in New England, New York, New Jersey and Pennsylvania. These companies range in size and vary from independent family businesses to multi state publicly held companies. Jody spent 12 years with GSR LLC in wholesale supply and distribution after leaving her family retail, wholesale, transportation and convenience store business in Vermont.

Professional Activities and Boards:

- Degree in Mechanical Engineering from Northeastern University in Boston, MA
- Member of the Mechanical Engineering Society
- Member of NFPA (National Fire Protection Association)
- Member of NPGA (National Propane Gas Association)
- Member of VFDA (Vermont Fuel Dealers Association)
- Member of MODA (Maine Oil Dealers Association)
- Member of PGANE (Propane Gas Association of New England)
- Member of NYPGA (New York Propane Gas Association)
- PGANE & NYPGA Propane Emergency Responder

Chaired and serviced on numerous committees for the New England Propane Gas Association, New York Propane Gas Association and Vermont Fuel Dealers.

Certifications & Training:

- NPGA Proctor
- CETP 1.0 Basic
- CETP 3.0 Basic Plant Operations
- Operator Qualification
- Propane Emergency Response
- Carbon Monoxide Awareness & Prevention

Appendix I

Letter from Theodore Lemoff, PE

TLemoff Engineering

October 7, 2021

Town of Wappinger Planning Board
20 Middlebush Road
Wappinger Falls, NY 12590

This Professional Office has been retained by Downey Energy ("Downey") to provide an independent fire safety and code review of the Downey proposed propane bulk storage plant. This proposed Plan has been revised to provide for a fully "mounded" enclosure of the proposed propane tanks. Attached is my Resume to provide my independent and professional background for this Review. Based upon my review and my professional experience, there is no possibility of any BLEVE based upon the burial of the tanks which isolates every tank from flame impingement. Furthermore, a fire pump and deluge system will be installed to immediately spray water on the transfer area, building, and any other fires before the arrival of any required pump trucks. Therefore, all reasonable and relevant safety concerns have been addressed in this revised Project. Permit me to address other comments made before the revisions to this Project were made.

The Hughsonville Fire District (the "District") states in a letter of July 20, 2021, that "the fire district could not properly handle a leak or fire at this proposed location". The District's aforementioned comments were made before this revised proposal for the mounded tanks was prepared. As such, those concerns are no longer relevant. Furthermore, the District has the resources both within the District as well as with well-established Mutual Aid Agreements to address any other potential safety issue. The District has not provided any documentation to the contrary.

Any appropriate safety issues have been addressed in the revised site plan. The 2, 45,000-gallon tanks will be mounded. NFPA 58-2017 requires fire protection for installations of this size[1]. Burial is recognized in the 2017 edition of NFPA 58, Liquefied Petroleum Gas Code, as the most appropriate method to provide fire protection. Mounding isolates the tank from flame impingement which can result in any BLEVE, and mounding of the tanks is widely used as a method of fire protection. A minimum of 1 foot of cover is recognized by NFPA 58 for this purpose. With the tanks mounded there is no possibility of BLEVE from flame impingement. Mounding and barriers protect the tanks from mechanical damage, and corrosion is abated by the corrosion protection system required by NFPA 58 for all mounded and buried propane tanks of this size.

With regard to any safety issues concerning transportation, the Emergency Response Guidebook (ERG) is not applicable to stationary plants such as proposed for Project and at this property. The Guidebook Cover states:

> A Guidebook for First Responders During the Initial Phase of a Dangerous Goods/Hazardous Materials ***Transportation Incident***

[1] NFPA 58-2017, Liquefied Petroleum Gas Code. Adopted by the New York State Fire Code.

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In addition, the DOT webpage Emergency Response Guidebook | PHMSA (dot.gov) starts with the following:

> PHMSA's 2020 Emergency Response Guidebook provides first responders with a go-to manual to help deal with hazmat transportation accidents during the critical first 30 minutes.

Clearly, the Guidebook is intended for transportation incidents, such as trucks and rail cars, and not stationary storage plants.

- The U. S. Department of Transportation has no jurisdiction over stationary storage plants, as they come under state law.
- Stationary storage plants have safety features that cannot be used in trucks and rail cars.

The Guidebook considers cargo tank failure with release of contents will occur in a trucking accident or derailment. Stationary storage facilities are not exposed to the same threats as cargo tanks and railcars. The last BLEVE of a stationary storage tank was in 1998[2]. As stated above, burial will make BLEVE from flame impingement impossible.

PROJECT SPECIFIC SAFETY ANALYSIS

The proposed plant as shown in the drawing Detailed Site Plan revision 4 5/4/2021, Downey Energy, 199 Old Route 9, Town of Wappinger, N. Y. meets the requirements of New York State law as specified in NFPA 58-2017, Liquefied Petroleum Gas code, and the most recent 2020 edition of NFPA 58. The plan shows the 2, 45,000-gallon storage tanks and traffic flow on the site. A revised Fire Safety Analysis (FSA) has been submitted separately, and it verifies the compliance with the New York State law.

NFPA 58 requires fire protection and security for all propane storage plants, and that incident response be coordinated with local emergency responders. The mode of fire protection is required to be specified in the fire safety analysis. If the FSA determines that a hazard to adjacent structures exist, special protection is required. Special protection is defined as:

> *A means of limiting the temperature of an LP-Gas container for purposes of minimizing the possibility of failure of the container as the result of fire exposure.*

There are 4 types of special protection recognized in NFPA 58: Insulation, water spray systems, mounding, and burial. Mounding is proposed in this case. With mounding of the tanks, other types of special protection are not needed, making the proposed 30,000 gallon on site water storge unnecessary for BLEVE prevention. It may be useful for other firefighting needs on the site, such as at the truck transfer area.

A Fire Safety Analysis has been provided and has incorporated the 2 storage tanks being buried and their new locations. The Fire Safety Analysis (FSA) has been developed using the Fire Safety Analysis Manual[3], which identified all relevant requirements of NFPA 58 to ensure they are complied with. The Manual also addresses exposure to other properties in 3 potential release scenarios, vapor dispersion, explosion hazard distance, and fire ball radiation distance. Of these 3 scenarios, vapor dispersion distance

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[2] Investigation Report, Propane Tank Explosion, U. S. Chemical Safety Board, Report No. 98-007-I-IA, June 23, 1999

[3] Fire Safety Analysis Manual for LP-Gas Storage Facilities, Phani K. Raj and Theodore Lemoff, National Fire Protection Association and National Propane Gas Association, 2015.

with delayed ignition is the concern to offsite properties. These are included in the FSA to address any sensitive populations near the proposed storage plant.

NFPA 58 allows the tanks to be 75 ft to the nearest line of adjacent property that can be built upon. This establishes the minimum distance from the tank to all adjacent buildings, including homes, offices, warehouses, schools, libraries, etc. Buildings that are assembly, health care, and educational occupancies are of greater concern. The offsite consequences analysis addresses threats to these occupancies. The release of the contents of the piping system is used to determine the maximum amount of propane released in a credible accident. Failure of the containers is not considered to be credible. This volume is used to calculate the greatest distance a propane cloud will travel before it is diluted to the lower flammable limit. When liquid propane is released, it will vaporize and appear as a white cloud. (Released propane will start vaporizing instantly and the temperature of the liquid will drop to about – 40° F. The white color is caused by ice particles.) The cloud will move in the direction of the wind and mix with air as it moves. The propane cloud will be flammable between 2.15% and 9.6% by volume in air. At this site, the distance to sensitive properties, such as schools and hospitals is 240 ft. calculated using the ALOHA software[4]. Within this distance there are no assembly, health care, and educational occupancies.

The hose and piping fittings used to connect the truck tank are of the low emission type. This minimizes the amount of propane released when a connection is opened to 1.2 cubic inches per disconnection. This is the amount of gas consumed in a typical gas grill during warm-up in about 1/2 minute. With this very small release there will not be a gas odor in the area.

The storage tanks incorporate remotely operated valves that are closed except during transfer of liquid into or out of the tanks. These valves are operated manually at the valve, remotely from identified emergency shutoff locations, and by loss of nitrogen pressure. Nitrogen is used to open these normally closed valves. Plastic tubing is used to carry the nitrogen and will fail in fire anywhere along the piping system. This is a significant feature that minimizes loss of propane when the plant is not staffed. During transfers, staff is trained to close these valves as a backup.

In addition, the plan for this Project is to be inspected every 5 years by an independent inspector familiar with NFPA 58 and propane plants to verify continued safe operation. Any items identified in this review should be repaired or replaced within 60 days, or as soon as parts are available.

CONCLUSION:

There are approximately 10,000 plants of this type in the United States[5]. This plant will be among the safest of them as it incorporates safety features that prevent accidents.

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[4] ALOHA software, U. S. Environmental Protection Agency, ALOHA Software | US EPA
[5] National Propane Gas Association estimate.