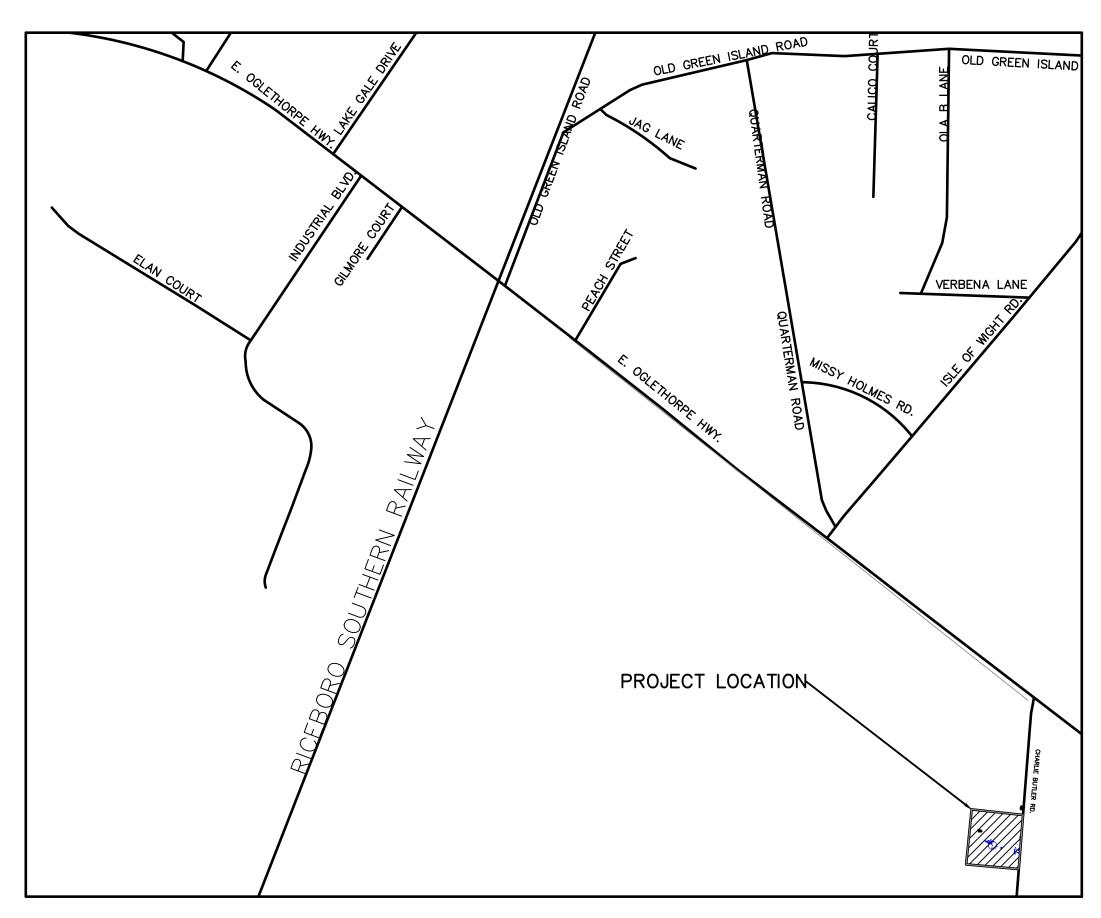
# MIDWAY WATER SYSTEM IMPROVEMENTS CHARLIE BUTLER ROAD WATER TOWER

OWNER
CITY OF MIDWAY
41 CHARLIE BUTLER RD
MIDWAY GA, 31320
(912)-332-4098

24-HOUR CONTACT
TERRELL CHIP
(912)-332-4098
TERRELL.CHIPPS@CITYOFMIDWAYGA.COM

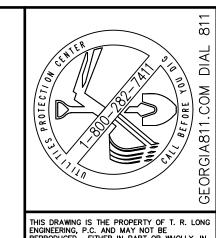
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VICINITY MAP N.T.S.

LOCATION: N30° 46' 47.13", W81° 37' 11.14" (30.780604, -81.619483)
DISTURBED ACREAGE: 0.479 AC.
TOTAL SITE ACREAGE: 280.86 AC.

	DRAWING LEGEND	
DESCRIPTION	PROPOSED	EXISTING
RIGHT OF WAY  EDGE OF PAVEMENT  DITCH CENTERLINE  SANITARY SEWER  WATER LINE  FORCE MAIN  UNDERGROUND GAS LINE  CONTOURS  STORM DRAINAGE PIPE  ELEVATION  SILT FENCE NON—SENSITIVE  SILT FENCE SENSITIVE	—————————————————————————————————————	—————————————————————————————————————
INLET PROTECTION  CHECK DAM— HAY BALE  CHECK DAM— RIP RAP  CONSTRUCTION EXIT  STORM OUTLET PROTECTION  SILT FENCE  MULCHING  TEMPORARY GRASSING  PERMANENT GRASSING  FIRE HYDRANT  SEWER MANHOLE  WATER VALVE  DRAINAGE FLOW  WATER METER  BENCHMARK  WELL  GUY POLE  IRON PIN  TELEPHONE PEDESTAL	Sd2-F Cd-Hb Cd-Rp Co St WW Ds1 Ds2 Ds3 WW XX WX W	S S WX D O FOUND O I.P.F
TELEPHONE PEDESTAL POWER POLE	€ C	© θ



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HINESVILLE:
Hinesville, Georgia 31313
(912) 368-5664
STATESBORO:
2 South Zetterower Avenue



MIDWAY WATER SYSTEM IMPROVEMENTS CHARLIE BUTLER ROAD

SHEET NAME:

COVER SHEET

REVISIONS:

I.

2.

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9.

10

INITIAL DATE: 10/14/2024
DRAWN BY: AJG
CHECKED BY, TRI

**C1.1** 

# **Inspection Notes**

- 1. Each day when any type of construction activity has taken place at a primary permittee's site, certified personnel provided by the primary permittee shall inspect: (a) all areas at the primary permittee's site where petroleum products are stored, used, or handled for spills and leaks from vehicles and equipment and (b) all locations at the primary permittee's site where vehicles enter or exit the site for evidence of off-site sediment tracking. These inspections must be conducted until a notice of termination is submitted.
- 2. The primary permittee will measure rainfall once every 24 hours except any non-working Saturday, non-working Sunday, and non-working federal holiday until a notice of termination is submitted. Measurement of rainfall may be suspended if all areas of the site have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region.
- 3. Certified personnel (provided by the primary permittee) shall inspect the following at least once every seven (7) calendar days and within 24 hours of the end of a storm that is 0.5 inches rainfall or greater (unless such storm ends after 5:00 pm on any Friday holiday in which case the inspection shall be completed by the end of the next business day and/or working day, whichever occurs first): a) disturbed areas of the primary permittee's construction site; b) areas used by the primary permittee for storage of materials that are exposed to precipitation; and c) structural control measures. Erosion and sediment control measures identified in the plan applicable to the primary permittee's site shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters(s). for areas of a site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region, the permittee must comply with part IV.D.4.a.(4). These inspections must be conducted until a notice of termination is submitted.
- 4. Certified personnel (provided by the primary permittee) shall inspect at least once per month during the term of this permit (i.e., until a notice of termination is received by EPD) the areas of the site that have undergone final stabilization or established a crop of annual vegetation and a seeding of target perennials appropriate for the region. These areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and the receiving waters(s). Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s)
- 5. Based on the result of each inspection, the site description, and the pollution prevention and control measures identified in the erosion, sedimentation, and pollution control plan, the plan shall be revised as appropriate not later than seven (7) calendar days following each inspection. Implementation of such changes shall be made as soon as practical but in no case later than seven (7) calendar days following each inspection.
- 6. A report of each inspection that includes the name(s) of certified personnel making each inspection, the date(s) of each inspection, construction phase (i.e., initial intermediate or final), major observations relating to the implementation of the erosion, sedimentation, and pollution control plan, and actions taken in accordance with part IV.D.4.a.(5). of the permit shall be made and retained at the site or be ready available at a designated alternate location until the entire site or that portion of a construction project that has been phased has undergone final stabilization and a notice of termination is submitted to EPD. Such reports shall be readily available by end of the second business day and/or working day and shall identify all incidents of best management practices that have not been properly installed and/or maintained as described in the plan. Where the report does not identify any incidents, the inspection report shall contain a certification that the best management practices are in compliance with the erosion, sedimentation, and pollution control plan. The report shall be signed in accordance with part V.G.2 of 2013 NPDES Stand Alone Permit.

# **Site Grading Notes**

- 1. RCP storm drain pipe is Class III reinforced concrete conforming to ASTM C-76. PVC storm drain pipe is SDR35. HDPE storm drain pipe is ADS N-12 1B WT.
- 2. Dimensions on buildings are for grading purposes only and are not to be used to lay-out footings. Refer to Structural Drawings for foundation information.
- 3. Grading contractor shall notify and cooperate with all utility companies or firms having facilities on or adjacent to the site before disturbing, altering, removing, relocating, adjusting or connecting to said facilities. Contractor shall pay all costs in connection with the alteration of or relocation of the facilities. Contractors shall raise or lower tops of existing
- 4. Grading contractor shall cooperate and work with all other contractors performing work on this project to insure proper and timely completion of this project.
- 5. The grading contractor shall use whatever measures are required to prevent silt and construction debris from flowing onto adjacent properties. Contractor shall comply with all local erosion, conservation, and siltation ordinances. Contractors shall remove all temporary erosion control structures upon completion of permanent drainage facilities and not before the establishment of a stand of grass sufficient to prevent erosion.
- 6. For any work on the state or city right-of-way, the grading contractor shall:

manholes to remain as required to match finished grades.

- A. Not store material, excess dirt, or equipment in the right-of-way. The pavement shall be kept free from any mud or excavation waste from trucks or other equipment. On completion of the work, all excess material shall be removed from the right-of-way.
- B. Provide all necessary and adequate safety precautions such as signs, flags, light barricades, and flag-men as required by the local authorities and in accordance with solely responsible for and hold harmless the City, State, Architect, Engineer, and Owner from any claims for damage done to existing private property, public utilities, or to the traveling public.
- C. Complete work to the satisfaction of the City Public Works Department and obtain a letter from the Department stating that the work is acceptable.
- 7. Grading contractor shall take all available precautions to control dust. Contractor shall control dust by sprinkling, or by other methods as directed by Engineer and/or Owner's representative, at no additional cost to Owner.
- 8. Site grading contractor shall terminate all storm drain pipes five feet maximum from building unless otherwise noted.
- 9. Storm sewer lead-ins to building shall not be installed until building plans are completed and locations established on the architectural plans. Lead-ins may change 15' horizontally and 3' vertically prior to installation at no additional cost to the owner. Contractor shall request and receive written approval from prime contractor prior to installation of lead-ins. Contractor shall coordinate locations, size, and invert elevations of storm sewers with approved building plumbing
- 10. All excavating is unclassified and shall include all materials encountered.
- 11. Before any machine work is done, contractor shall stake out and mark the items established by the site plan, control points shall be preserved at all times during the course of the project. Lack of proper working points and grade stakes may require satisfaction owner must approved staked items prior to construction.
- 12. Temporary erosion control devices to be installed prior to beginning of grading. Contractor shall maintain all temporary erosion control devices and shall remove silt contractor at least once a week.
- 13. Contractor to coordinate all work with other utility installations not covered in these plans, (Electric, Telephone, Gas, Cable, Etc.) and allow for their operations and construction to be performed.
- 14. Cut and fill slopes are not to exceed 3:1 unless otherwise noted.
- 15. In no case shall any paved areas be less than a slope of 1.0%. All accessible sidewalks and aisle slopes not to exceed 2% cross-slope.
- 16. Contractor shall repair or replace in-kind any damage that occurs as result of his work.
- 17. All linear footage for all utility pipes are approximate, actual installed quantities may vary.
- 18. Grading contractor shall restore to grade and compaction all areas disturbed by building construction prior to base and paving operations commencing.
- 19. Grading contractor shall maintain all weather construction access roads as required by general contractor.

# Site Utility Notes

- 1. The site utility plan is for sanitary sewer and water line construction only. Do not use for grading or storm sewer
- 2. All pipe lengths are horizontal distances and are approximate.
- 3. All domestic water and sanitary sewer stubs to be terminated 5 feet outside of the building unless otherwise noted. The end of these service lines shall be tightly plugged or capped and marked until such time as connection is made inside building by plumbing contractor.
- 4. Site utility contractor shall provide all the materials and appurtenances necessary for the complete installation of the utilities. All pipe and fittings shall be inspected by the Water Department Inspector prior to being covered. The inspector must also be present during pressure testing and disinfection of laterals and his signature of approval is required.
- 5. All work shall comply with all applicable codes, regulations, and/or local standards imposed by local utility and the City
- 6. The site utility contractor shall make arrangements with the local utility authorities for connection to the existing mains and pay all applicable fees.
- 7. All water lines shall have a minimum cover of 36" above top of pipe.
- 8. Contractor shall adjust location of proposed water lines as required to avoid conflicts with storm sewer or other utilities
- 9. Based on the current edition of the international plumbing code, cleanouts are required at a maximum spacing of 100 feet on utility lead-ins to building. Contractor to provide a cleanout within 5 feet of building and at all bends.
- 10. The site utility contractor shall cooperate and work with all other contractors on the site.
- 11. All materials shall be U.L. listed and approved by the local utility company unless directed otherwise by the Engineer.
- 12. The existing utility facilities and locations shown on the drawings are taken from readily available information. The actual locations of the utility facilities may vary somewhat from the locations shown or indicated on the drawings. The site utility contractor shall contact all agencies with utility facilities in the vicinity of the work and shall locate all underground facilities before beginning work. The contractor shall project all utility facilities and repair any damages resulting from their work, in conformance with the contract documents and specifications and relocate if required.
- 13. All sanitary sewer pipe shall be SDR-26 meeting ASTM D3034 with gasket type joints meeting ASTM F477.
- 14. Utility lead-ins to building shall not be installed until building plans are completed and locations established on the architectural plumbing plans. Lead-ins my change 15' horizontally and 3' vertically prior to installations at no additional cost to the owner. Utility contractor shall request and receive written approval from prime contractor prior to installation of lead-ins. Location, size and invert elevations of sanitary sewer shall be coordinated with the approved plumbing plans for the building.
- 15. Building plumbing contractor shall pay all cost for water meters, meter boxes, valves, etc. to provide a complete job per local authority requirements.
- 16. Thrust blocks shall be provided at all tees, elbows, and bends of sufficient size to comply with minimum standards of N.F.P.A. - Existing soil conditions.
- 17. Should latent soil conditions necessitate, contractor shall install special supports for piping and/or appurtenances including the removal of unsuitable material and backfilling with gravel or other material. Contractor shall perform any such work as directed by the civil engineer and/or soils engineer at no cost to owner.
- 18. Contractor to coordinate all work with other utility installations not covered in these plans (Electric, Telephone, Gas, Cable, etc.) and allow for their operations and construction to be prepared.
- 19. The site utility contractor shall coordinate and pay for all sanitary sewer connections. Sanitary sewer connection final tie-in to the existing manhole(s) shall not be made until completion of the proposed system and all manholes have been brought above ground to insure sediment does not enter system. Lines shall be properly cleaned, if needed.
- 20. Site utility contractor to coordinate with irrigation contractor to provide power in conduit to irrigation controller per manufacturers recommendations. Verify exact location of controller with owner prior to installation.

THE CONTRACTOR SHALL VERIFY ALL DIMENSION CONTAINED WITHIN THIS SET OF DOCUMENTS AN SHALL REPORT ANY DISCREPANCIES TO T. R. LONG ENGINEERING, P.C. FOR IMMEDIATE RESOLUTION.

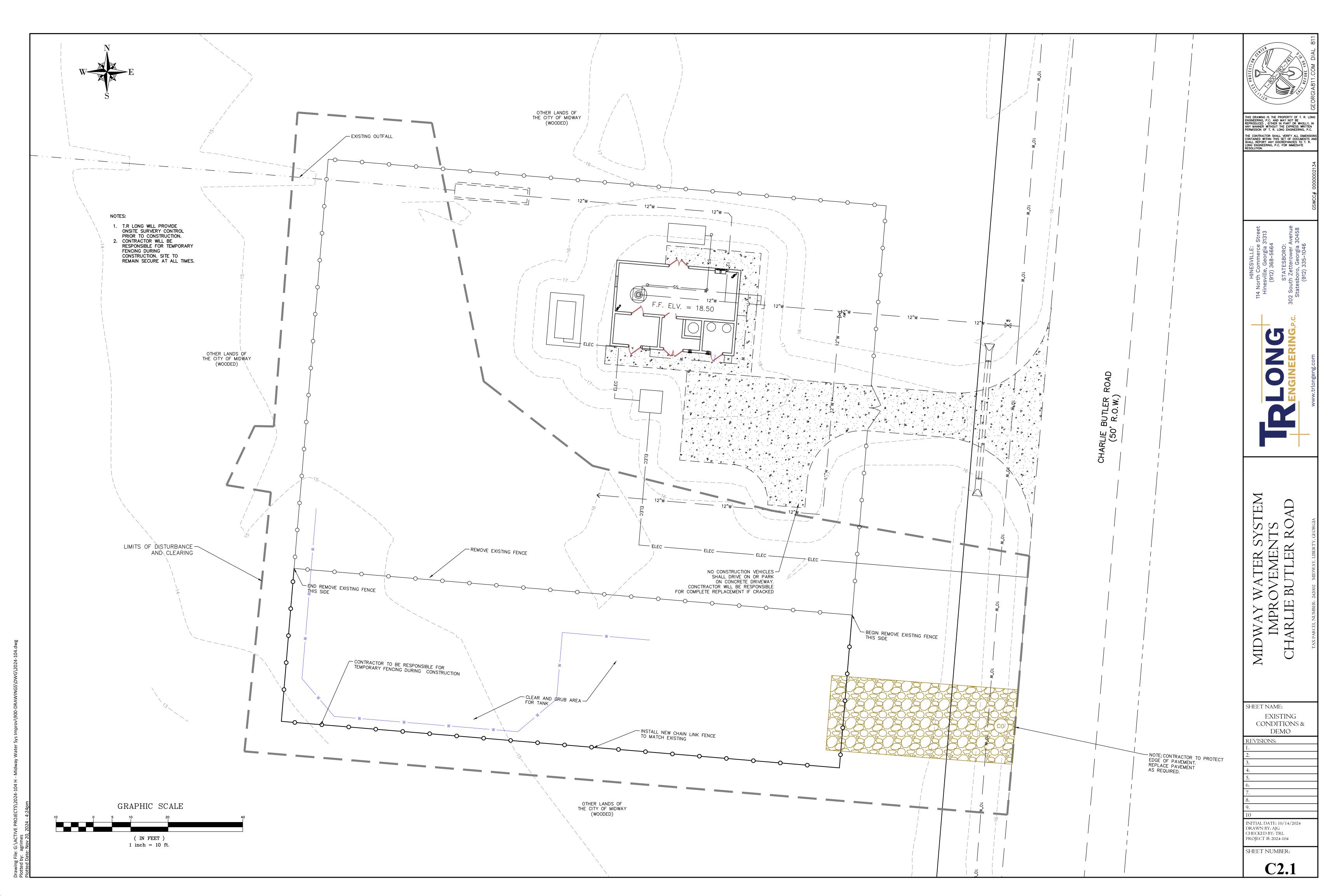


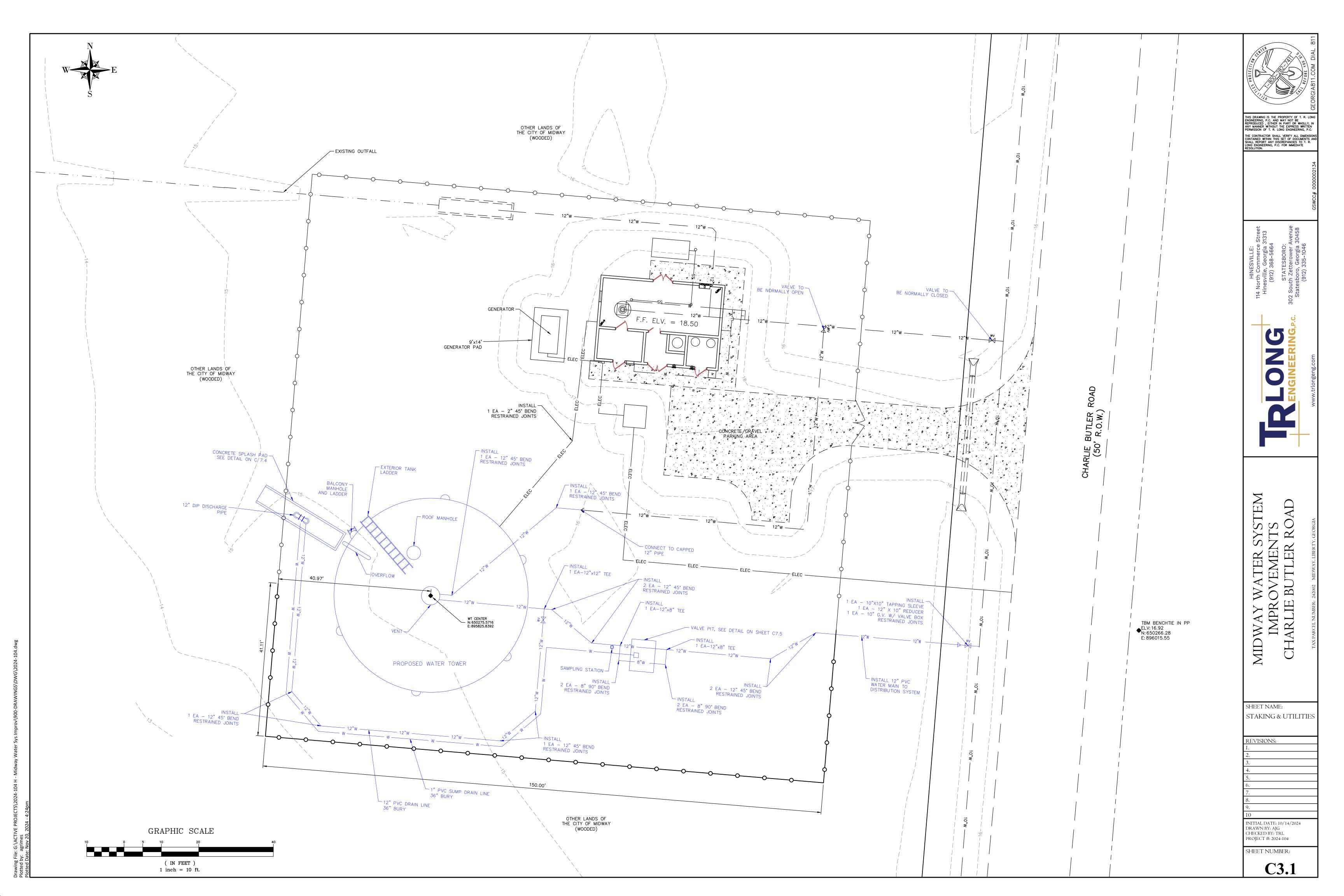
SHEET NAME: GENERAL NOTES

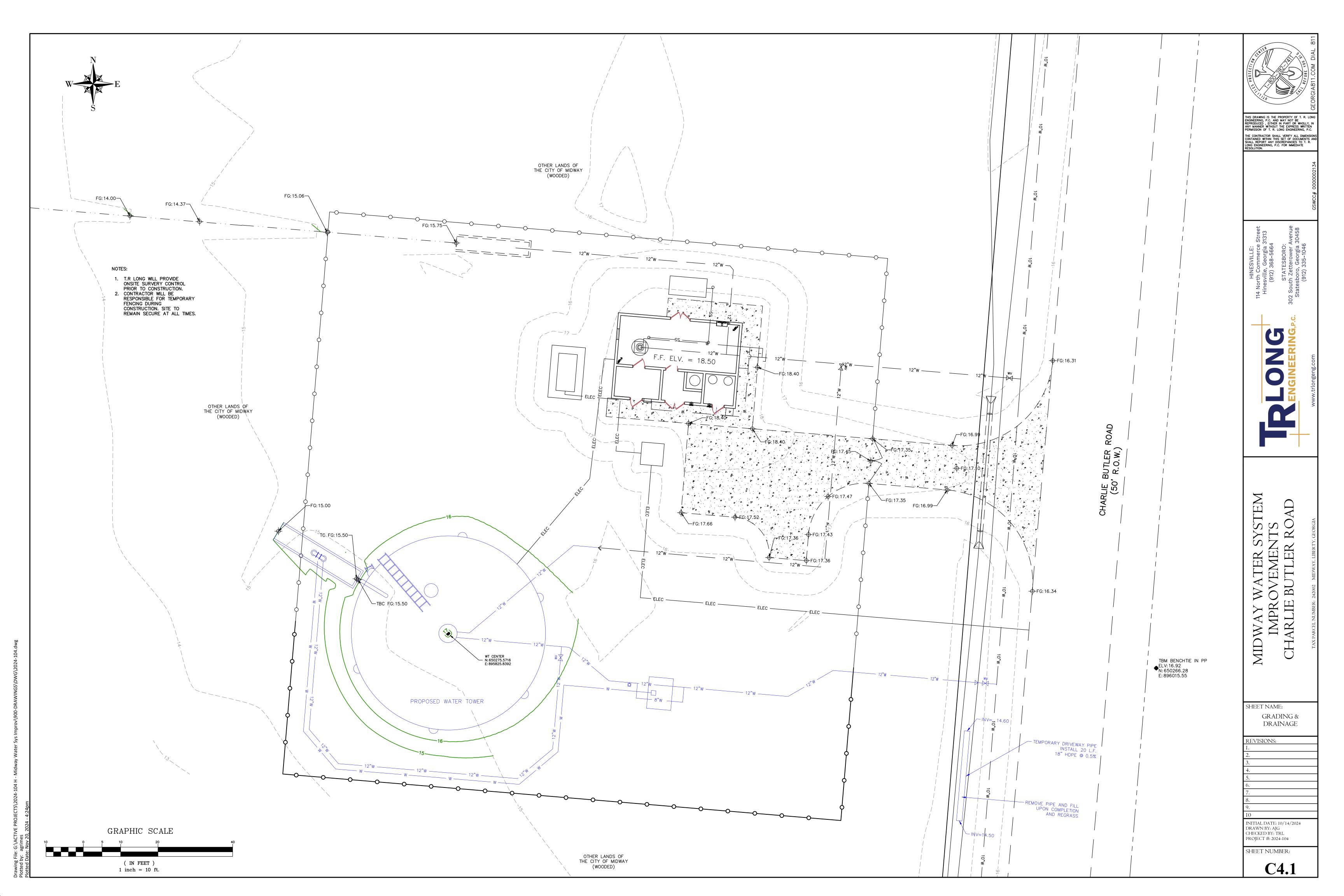
DRAWN BY: AJG CHECKED BY: TRL PROJECT #: 2024-104

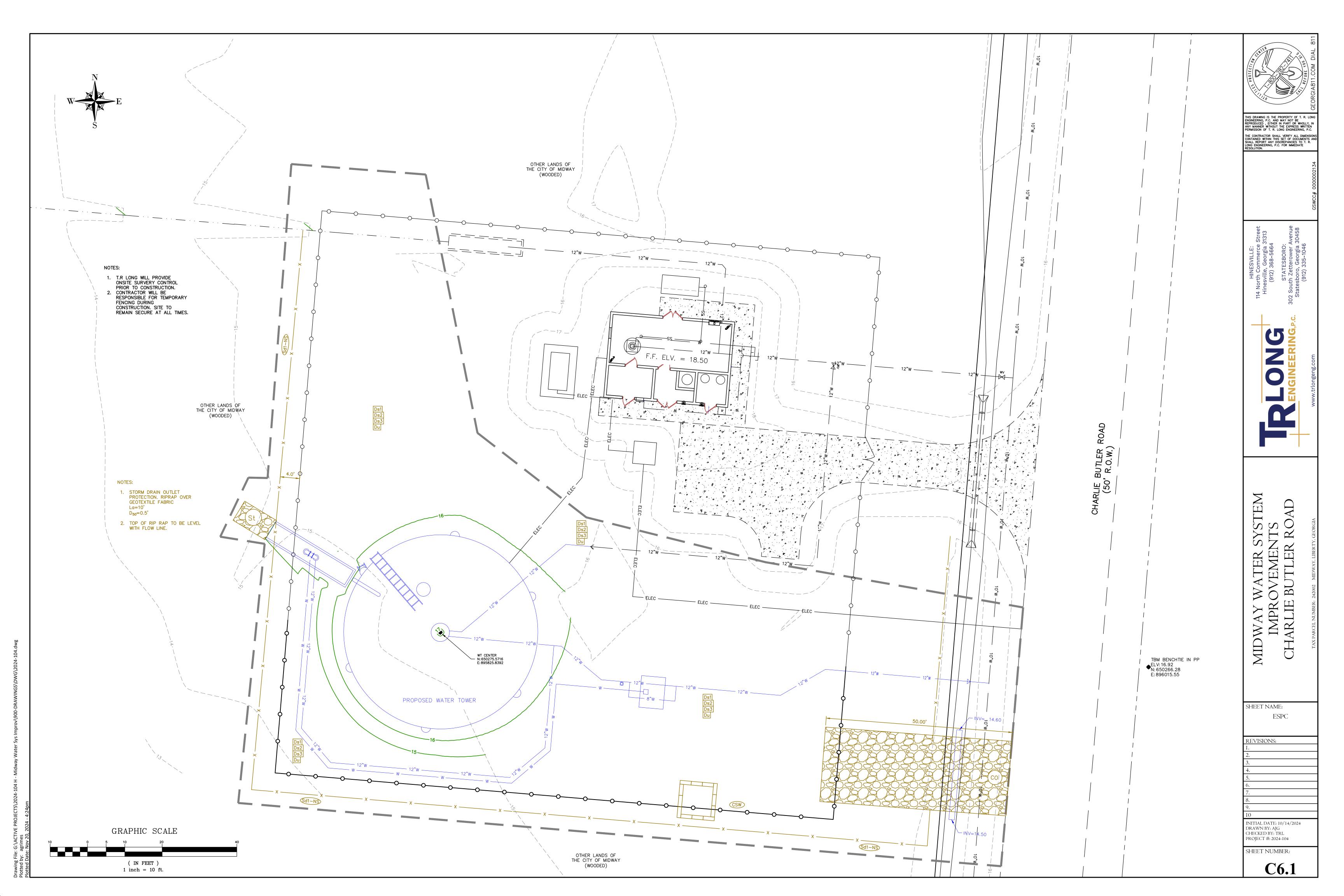
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**C1.2** 

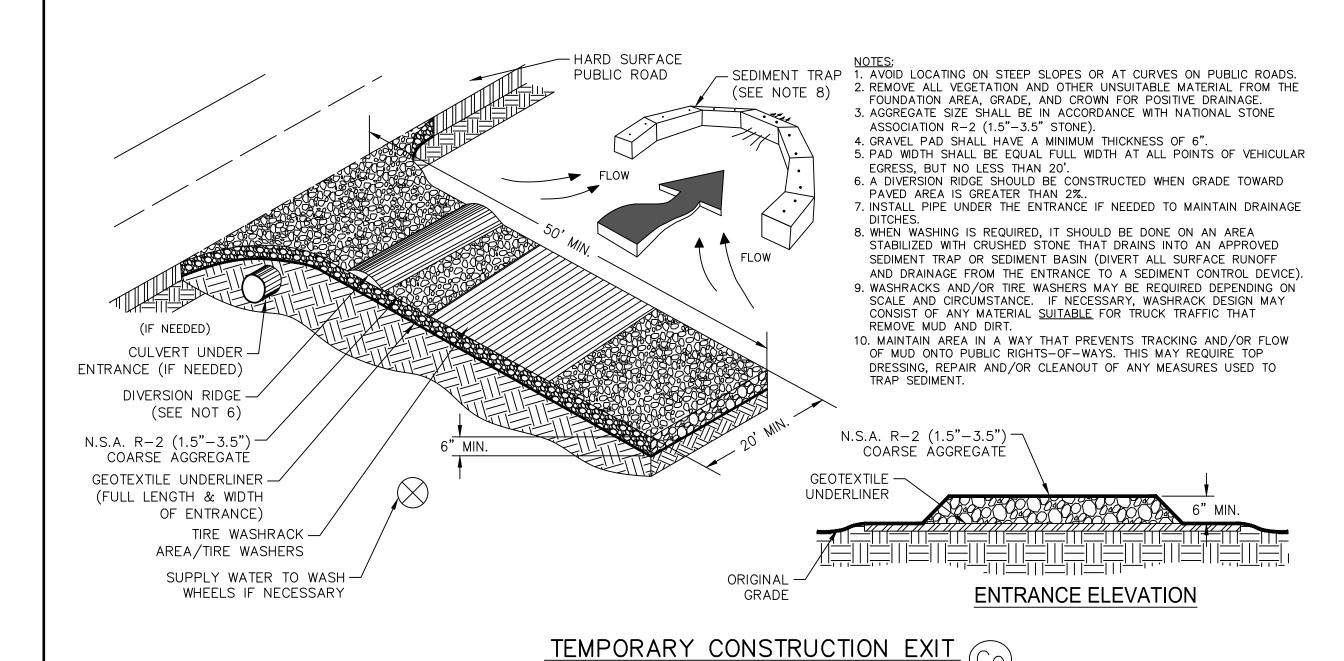


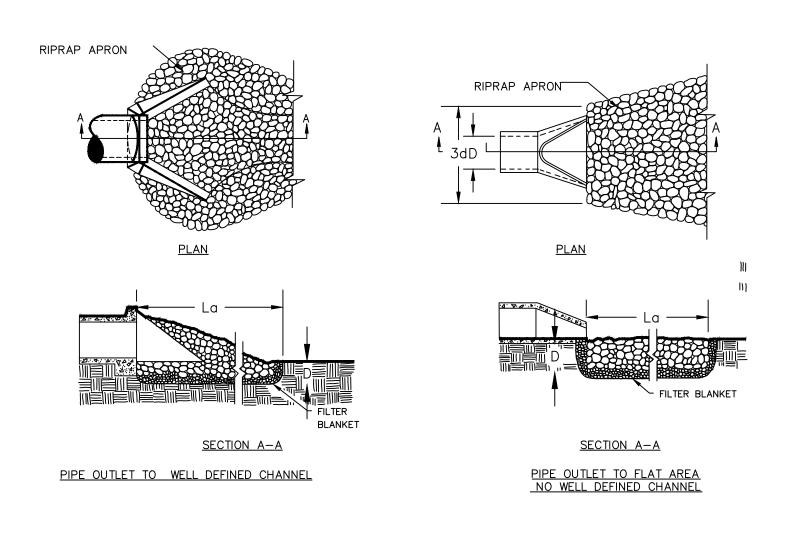






SILT FENCE - TYPE NS (Sd1-NS) Non-Sensitive - Type A





1. La IS THE LENGTH OF THE REPRAP APRON.

2. D = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6". 3. IN A WELL-DEFINED CHANNEL, EXTEND TO APRON UP THE CHANNEL BANKS TO AN

ELEVATION OF 6" ABOVE THE MAXIMUM TAIL WATER DEPTH OR TO THE TOP OF THE BANK (WHICHEVER IS LESS)

4. A FILTÈR BLANKET OR FILTÉR FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND THE SOIL FOUNDATION

CONCRETE WASHOUT AREA

PURPOSE - PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORM WATER FROM CONCRETE WASTE BY CONDUCTING WASHOUT OFFSITE, OR PERFORMING ONSITE WASHOUT IN A DESIGNATED AREA TO PREVENT POLLUTANTS FROM ENTERING SURFACE WATERS OR GROUNDWATER.

CONDITIONS OF USE - CONCRETE WASHOUT AREA BEST MANAGEMENT PRACTICES ARE IMPLEMENTED ON CONSTRUCTION

• CONCRETE IS USED AS A CONSTRUCTION MATERIAL • IT IS NOT POSSIBLE TO DISPOSE OF ALL CONCRETE WASTEWATER AND WASHOUT OFFSITE (READY MIX PLANT,

• CONCRETE TRUCKS, PUMPERS, OR OTHER CONCRETE COATED EQUIPMENT ARE WASHED ONSITE.

DESIGN AND INSTALLATION SPECIFICATIONS

IMPLEMENTATION - THE FOLLOWING STEPS WILL HELP REDUCE STORMWATER POLLUTION FROM CONCRETE WASTES: • PERFORM WASHOUT OF CONCRETE TRUCKS OFFSITE OR IN DESIGNATED CONCRETE WASHOUT AREAS ONLY. • DO NOT WASH OUT CONCRETE TRUCKS ONTO THE GROUND, OR INTO STORM DRAINS, OPEN DITCHES, STREETS, OR

• DO NOT ALLOW EXCESS CONCRETE TO BE DUMPED ONSITE, EXCEPT IN DESIGNATED CONCRETE WASHOUT AREAS. • CONCRETE WASHOUT AREAS MAY BE PREFABRICATED CONCRETE WASHOUT CONTAINERS, OR SELF-INSTALLED STRUCTURES (ABOVE-GRADE OR BELOW-GRADE).

• PREFABRICATED CONTAINERS ARE MOST RESISTANT TO DAMAGE AND PROTECT AGAINST SPILLS AND LEAKS. COMPANIES MAY OFFER DELIVERY SERVICE AND PROVIDE REGULAR MAINTENANCE AND DISPOSAL OF SOLID AND

• IF SELF-INSTALLED CONCRETE WASHOUT AREAS ARE USED, BELOW-GRADE STRUCTURES ARE PREFERRED OVER ABOVE-GRADE STRUCTURES BECAUSE THEY ARE LESS PRONE TO SPILLS AND LEAKS. • SELF-INSTALLED ABOVE-GRADE STRUCTURES SHOULD ONLY BE USED IF EXCAVATION IS NOT PRACTICAL.

EDUCATION - THE FOLLOWING EDUCATION PRACTICES ARE RECOMMENDED: • DISCUSS THE CONCRETE MANAGEMENT TECHNIQUES DESCRIBED IN THIS BEST MANAGEMENT PRACTICE WITH THE

READY-MIX CONCRETE SUPPLIER BEFORE ANY DELIVERIES ARE MADE. • EDUCATE EMPLOYEES AND SUBCONTRACTORS ON THE CONCRETE WASTE MANAGEMENT TECHNIQUES DESCRIBED IN THIS SECTION.

• ARRANGE FOR CONTRACTOR'S SUPERINTENDENT OR LEVEL 1A CERTIFIED PERSONNEL TO OVERSEE AND ENFORCE CONCRETE WASTE MANAGEMENT PROCEDURES.

• A SIGN SHOULD BE INSTALLED ADJACENT TO EACH TEMPORARY CONCRETE WASHOUT FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS TO UTILIZE THE PROPER FACILITIES.

CONTRACTS - INCORPORATE REQUIREMENTS FOR CONCRETE WASTE MANAGEMENT INTO CONCRETE SUPPLIER AND SUBCONTRACTOR AGREEMENTS.

LOCATION AND PLACEMENT - THE FOLLOWING GUIDELINES SHALL BE USED WHEN LOCATING AND PLACING THE

CONCRETE WASH-OUT AREA: · LOCATE WASHOUT AREA AT LEAST 50 FEET FROM SENSITIVE AREAS SUCH AS STORM DRAINS, OPEN DITCHES, OR

WATER BODIES, INCLUDING WETLANDS. • ALLOW CONVENIENT ACCESS FOR CONCRETE TRUCKS, PREFERABLY NEAR THE AREA WHERE THE CONCRETE IS

BEING POURED. • IF TRUCKS NEED TO LEAVE A PAVED AREA TO ACCESS WASHOUT, PREVENT TRACK-OUT WITH A CONSTRUCTION

• THE NUMBER OF FACILITIES YOU INSTALL SHOULD DEPEND ON THE EXPECTED DEMAND FOR STORAGE CAPACITY.

• ON LARGE SITES WITH EXTENSIVE CONCRETE WORK, WASHOUTS SHOULD BE PLACED IN MULTIPLE LOCATIONS FOR EASE OF USE BY CONCRETE TRUCK DRIVERS.

ONSITE TEMPORARY CONCRETE WASHOUT FACILITY, TRANSIT TRUCK WASHOUT PROCEDURES: • TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE LOCATED A MINIMUM OF 50 FT. FROM SENSITIVE AREAS

INCLUDING STORM DRAIN INLETS, OPEN DRAINAGE FACILITIES, AND WATERCOURSES. • CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.

APPROXIMATELY 7 GALLONS OF WASH WATER ARE USED TO WASH ONE TRUCK CHUTE. APPROXIMATELY 50 GALLONS ARE USED TO WASH OUT THE HOPPER OF A CONCRETE PUMP TRUCK

· WASHOUT OF CONCRETE TRUCKS SHALL BE PERFORMED IN DESIGNATED AREAS ONLY. • CONCRETE WASHOUT FROM CONCRETE PUMPER BINS CAN BE WASHED INTO CONCRETE PUMPER TRUCKS AND

DISCHARGED INTO DESIGNATED WASHOUT AREA OR PROPERLY DISPOSED OF OFFSITE. • ONCE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN, THE CONCRETE SHOULD BE BROKEN UP, REMOVED, AND DISPOSED OF PER APPLICABLE SOLID WASTE REGULATIONS. DISPOSE OF

HARDENED CONCRETE ON A REGULAR BASIS. TEMPORARY ABOVE-GRADE CONCRETE WASHOUT FACILITY

• TEMPORARY CONCRETE WASHOUT FACILITY (TYPE ABOVE GRADE) SHOULD BE CONSTRUCTED AS SHOWN ON THE DETAILS WITH A RECOMMENDED MINIMUM LENGTH AND MINIMUM WIDTH OF 10 FT., BUT WITH SUFFICIENT QUANTITY AND VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.

• PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND SHOULD BE FREE OF

HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.

TEMPORARY BELOW-GRADE CONCRETE WASHOUT FACILITY

• TEMPORARY CONCRETE WASHOUT FACILITIES (TYPE BELOW GRADE) SHOULD BE CONSTRUCTED WITH A RECOMMENDED MINIMUM LENGTH AND MINIMUM WIDTH OF 10 FT. THE QUANTITY AND VOLUME SHOULD BE SUFFICIENT TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS. • PLASTIC LINING MATERIAL SHALL BE A MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND SHOULD BE FREE OF

HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL. · LINER SEAMS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.

• SOIL BASE SHALL BE PREPARED FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE PLASTIC LINING MATERIAL.

INSPECTION AND MAINTENANCE • INSPECT AND VERIFY THAT CONCRETE WASHOUT BMPS ARE IN PLACE PRIOR TO THE COMMENCEMENT OF CONCRETE

• DURING PERIODS OF CONCRETE WORK, INSPECT DAILY TO VERIFY CONTINUED PERFORMANCE.

• CHECK OVERALL CONDITION AND PERFORMANCE. • CHECK REMAINING CAPACITY (% FULL).

• IF USING SELF-INSTALLED WASHOUT FACILITIES, VERIFY PLASTIC LINERS ARE INTACT AND SIDEWALLS ARE NOT

• IF USING PREFABRICATED CONTAINERS, CHECK FOR LEAKS.

• WASHOUT FACILITIES SHALL BE MAINTAINED TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM FREEBOARD OF 12 INCHES.

• WASHOUT FACILITIES MUST BE CLEANED, OR NEW FACILITIES MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75% FULL. • IF THE WASHOUT IS NEARING CAPACITY, VACUUM AND DISPOSE OF THE WASTE MATERIAL IN AN APPROVED

• DO NOT DISCHARGE LIQUID OR SLURRY TO WATERWAYS, STORM DRAINS OR DIRECTLY ONTO GROUND.

• DO NOT USE SANITARY SEWER WITHOUT LOCAL APPROVAL. • PLACE A SECURE, NON-COLLAPSING, NON-WATER COLLECTING COVER OVER THE CONCRETE WASHOUT FACILITY

PRIOR TO PREDICTED WET WEATHER TO PREVENT ACCUMULATION AND OVERFLOW OF PRECIPITATION. • REMOVE AND DISPOSE OF HARDENED CONCRETE AND RETURN THE STRUCTURE TO A FUNCTIONAL CONDITION. CONCRETE MAY BE REUSED ONSITE OR HAULED AWAY FOR DISPOSAL OR RECYCLING.

• WHEN YOU REMOVE MATERIALS FROM THE SELF-INSTALLED CONCRETE WASHOUT, BUILD A NEW STRUCTURE; OR, IF THE PREVIOUS STRUCTURE IS STILL INTACT, INSPECT FOR SIGNS OF WEAKENING OR DAMAGE, AND MAKE ANY NECESSARY REPAIRS. RE-LINE THE STRUCTURE WITH NEW PLASTIC AFTER EACH CLEANING.

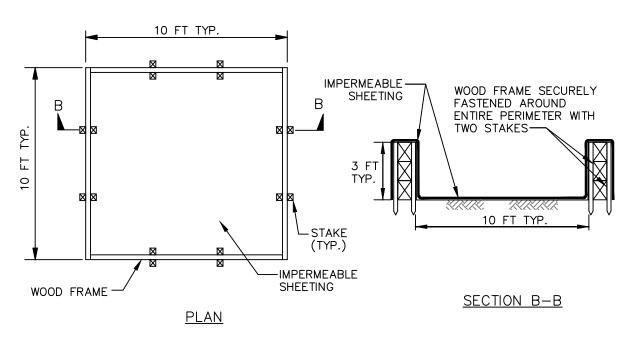
REMOVAL OF TEMPORARY CONCRETE WASHOUT FACILITIES

• WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE, SLURRIES AND LIQUIDS SHALL BE REMOVED AND PROPERLY DISPOSED OF. • MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE REMOVED FROM THE SITE

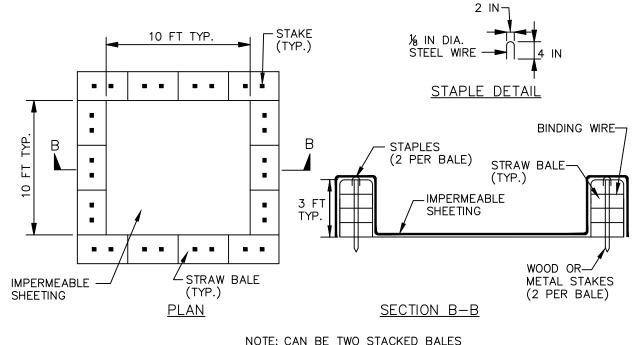
OF THE WORK AND DISPOSED OF OR RECYCLED. • HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE BACKFILLED, REPAIRED, AND STABILIZED TO PREVENT EROSION.

10 FT TYP. -SANDBAG - IMPERMEABLE SHEETING OR EQUIVALENT-IMPERMEARIF-SHEETING SIDE SLOPE SECTION A-A

EXCAVATED WASHOUT STRUCTURE



WASHOUT STRUCTURE WITH WOOD PLANKS



OR PARTIALLY EXCAVATED TO REACH 3 FT DEPTH

WASHOUT STRUCTURE WITH STRAW BALES

# CONSTRUCTION SPECIFICATIONS

1. LOCATE WASHOUT STRUCTURE A MINIMUM OF 50 FEET AWAY FROM OPEN CHANNELS, STORM DRAIN INLETS, SENSITIVE AREAS, WETLANDS, BUFFERS AND WATER COURSES AND AWAY FROM CONSTRUCTION

2. SIZE WASHOUT STRUCTURE FOR VOLUME NECESSARY TO CONTAIN WASH WATER AND SOLIDS AND MAINTAIN AT LEAST 4 INCHES OF FREEBOARD. TYPICAL DIMENSIONS ARE 10 FEET X 10 FEET X 3

3. PREPARE SOIL BASE FREE OF ROCKS OR OTHER DEBRIS THAT MAY CAUSE TEARS OR HOLES IN THE LINER. FOR LINER, USE 10 MIL OR THICKER UV RESISTANT, IMPERMEABLE SHEETING, FREE OF HOLES AND TEARS OR OTHER DEFECTS THAT COMPROMISE IMPERMEABILITY OF THE MATERIAL.

4. PROVIDE A SIGN FOR THE WASHOUT IN CLOSE PROXIMITY TO THE FACILITY.

5. KEEP CONCRETE WASHOUT STRUCTURE WATER TIGHT. REPLACE IMPERMEABLE LINER IF DAMAGED (E.G., RIPPED OR PUNCTURED). EMPTY OR REPLACE WASHOUT STRUCTURE THAT IS 75 PERCENT FULL, AND DISPOSE OF ACCUMULATED MATERIAL PROPERLY. DO NOT REUSE PLASTIC LINER. WET-VACUUM STORED LIQUIDS THAT HAVE NOT EVAPORATED AND DISPOSE OF IN AN APPROVED MANNER. PRIOR TO FORECASTED RAINSTORMS, REMOVE LIQUIDS OR COVER STRUCTURE TO PREVENT OVERFLOWS. REMOVE

HARDENED SOLIDS. WHOLE OR BROKEN UP, FOR DISPOSAL OR RECYCLING. MAINTAIN RUNOFF

DIVERSION AROUND EXCAVATED WASHOUT STRUCTURE UNTIL STRUCTURE IS REMOVED.

NOTE: WASHOUT OF THE CONCRETE TRUCK DRUM AT THE CONSTRUCTION SITE IS PROHIBITED

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SHEET NAME: SITE DETAILS

REVISIONS:

INITIAL DATE: 10/14/2024 DR AWN BY: AJG CHECKED BY: TRL

PROJECT #: 2024-104 SHEET NUMBER:

CONCRETE WASHDOWN AREA DETAIL

- 2. TO CONSERVE MOISTURE TO PREVENT SURFACE COMPACTION OR CRUSTING
- 4. TO CONTROL UNDESIRABLE VEGETATION 5. TO INCREASE BIOLOGICAL ACTIVITY IN THE SOIL.

REQUIREMENT FOR REGULATORY COMPLIANCE

MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTURBANCE. MULCH CAN BE USED AS A SINGULAR EROSION CONTROL DEVICE FOR UP TO SIX MONTHS. BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH. DEPENDING ON THE MATERIAL USED, ANCHORED, AND HAVE A CONTINUOUS 90% COVER OR GREATER OF THE SOIL SURFACE. MAINTENANCE SHALL BE REQUIRED TO MAINTAIN APPROPRIATE DEPTH AND 90% COVER. TEMPORARY VEGETATION MAY BE EMPLOYED INSTEAD OF MULCH IF THE AREA WILL REMAIN UNDISTURBED FOR LESS THAN SIX MONTHS. IF AN AREA WILL REMAIN UNDISTURBED FOR GREATER THAN SIX MONTHS, PERMANENT VEGETATIVE TECHNIQUES SHALL BE EMPLOYED.

# MULCHING WITHOUT SEEDING

THIS STANDARD APPLIES TO GRADES OR CLEARED AREAS WHERE SEEDINGS MAY NOT HAVE A SUITABLE GROWING SEASON TO PRODUCE AN EROSION RETARDANT COVER, BUT CAN BE STABILIZED WITH A MULCH COVER.

SITE PREPARATION 1. GRADE TO PERMIT THE USE OF EQUIPMENT FOR APPLYING AND ANCHORING MULCH. 2. INSTALL NEEDED EROSION CONTROL MEASURES AS REQUIRED SUCH AS DIKES, DIVERSIONS, BERMS, TERRACES AND SEDIMENT

3. LOOSEN COMPACT SOIL TO A MINIMUM DEPTH OF 3 INCHES.

## MULCHING MATERIALS SELECT ONE OF THE FOLLOWING MATERIALS AND APPLY AT THE DEPTH INDICATED:

1. DRY STRAW OR HAY SHALL BE APPLIED AT A DEPTH OF 2 TO 4 INCHES PROVIDING COMPLETE SOIL COVERAGE. ONE ADVANTAGE OF THIS MATERIAL IS EASY APPLICATION. 2. WOOD WASTE (CHIPS, SAWDUST OR BARK) SHALL BE APPLIED AT A DEPTH OF 2 TO 3 INCHES. ORGANIC MATERIAL FROM THE

CLEARING STAGE OF DEVELOPMENT SHOULD REMAIN ON SITE, BE CHIPPED, AND APPLIED AS MULCH. THIS METHOD OF MULCHING CAN GREATLY REDUCE EROSION CONTROL COSTS 3. POLYETHYLENE FILM SHALL BE SECURED OVER BANKS OR STOCKPILED SOIL MATERIAL FOR TEMPORARY PROTECTION. THIS MATERIAL CAN BE SALVAGED AND REUSED.

DS3

WHEN MULCH IS USED WITHOUT SEEDING, MULCH SHALL BE APPLIED TO PROVIDE FULL COVERAGE OF THE EXPOSED AREA 1. DRY STRAW OR HAY MULCH AND WOOD CHIPS SHALL BE APPLIED UNIFORMLY BY HAND OR BY MECHANICAL EQUIPMENT. 2. IF THE AREA WILL EVENTUALLY BE COVERED WITH PERENNIAL VEGETATION, 20-30 POUNDS OF NITROGEN PER ACRE IN ADDITION TO THE NORMAL AMOUNT SHALL BE APPLIED TO OFFSET THE UPTAKE OF NITROGEN CAUSED BY THE DECOMPOSITION OF THE ORGANIC MULCHES.

# 3. APPLY POLYETHYLENE FILM ON EXPOSED AREAS.

1. STRAW OR HAY MULCH CAN BE PRESSED INTO THE SOIL WITH A DISK HARROW WITH THE DISK SET STRAIGHT OR WITH A SPECIAL "PACKER DISK." DISKS MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12 INCHES APART. THE EDGES OF THE DISK SHOULD BE DULL ENOUGH NOT TO CUT THE MULCH BUT TO PRESS IT INTO THE SOIL LEAVING MUCH OF IT IN AN ERECT POSITION. STRAW OR HAY MULCH SHALL BE ANCHORED IMMEDIATELY AFTER APPLICATION. STRAW OR HAY MULCH SPREAD WITH SPECIAL BLOWER-TYPE EQUIPMENT MAY BE ANCHORED. TACKIFIERS, BINDERS AND HYDRAULIC MULCH WITH TACKIFIERS SPECIFICALLY DESIGNED FOR TACKING STRAW CAN BE SUBSTITUTED FOR EMULISFIED ASPHALT. PLEASE REFER TO SPECIFICATION TACKIFIERS. PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

2. NETTING OF THE APPROPRIATE SIZE SHALL BE USED TO ANCHOR WOOD WASTE. OPENINGS OF THE NETTING SHALL NOT BE LARGER THAN THE AVERAGE SIZE OF THE WOOD WASTE CHIPS.

3. POLYETHYLENE FILM SHALL BE ANCHOR TRENCHED AT THE TOP AS WELL AS INCREMENTALLY AS NECESSARY.

# APPLICATION RATE FOR EACH TYPE OF SOIL ENCOUNTERED ON THE SITE.

DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

INCLUDING CUTS, FILLS, DAMS, AND OTHER DENUDED AREAS.

STRAW OR HAY MULCH IF A DISK IS TO BE USED.

OPENING FURROWS, OR DIBBLE PLANTING.

IS DRY, PREFERABLY IN AUGUST OR SEPTEMBER.

TILLAGE MAY BE DONE WITH ANY SUITABLE EQUIPMENT.

TILLAGE SHOULD BE DONE ON THE CONTOUR WHERE FEASIBLE.

USED TO ACHIEVE FINAL STABILIZATION.

GRADING AND SHAPING

ALSO BE USED.

CROWDING.

HYDRAULIC SEEDING

CONVENTIONAL SEEDING

AT THE PROPER DEPTH.

HOUR AFTER THE MIXTURE IS MADE.

OR OTHER SUITABLE EQUIPMENT.

STANDARDS AND SPECIFICATIONS.

MULCHING: MULCHING IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCHING APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED. 1. DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2 1/2 TONS PER ACRE.

2. WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING, IT SHALL BE APPLIED AT A RATE OF 500 LBS PER ACRE. DRY STRAW R DRY HAY SHALL BE APPLIED AFTER HYDRAULIC SEEDING.

3. ONE THOUSAND POUNDS OF WOOD CELLULOSE OF WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES GREATER THAN 3/4:1 OR STEEPER.

4. SERICEA LESPEDEZA HAY CONTAINING MATURE SEÉD SHALL BE APPLIED AT A RATE OF THREE TONS PER ACRE. 5. PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3" FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN

SUFFICIENT QUANTITIES MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT

APPROPRIATE FOR SEEDED AREAS. 6. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCHING IS NOT REQUIRED.

THE PLANTING OF PERENNIAL VEGETATION SUCH AS TREES, SHRUBS, VINES, GRASSES, OR LEGUMES ON

EXPOSED AREAS FOR FINAL PERMANENT STABILIZATION. PERMANENT PERENNIAL VEGETATION SHALL BE

PERMANENT PERENNIAL VEGETATION IS USED TO PROVIDE A PROTECTIVE COVER FOR EXPOSED AREAS

GRADING AND SHAPING MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT

WHEN CONVENTIONAL SEEDING AND FERTILIZING ARE TO BE DONE, GRADE AND SHAPE WHERE FEASIBLE

CONCENTRATIONS OF WATER THAT WILL CAUSE EXCESSIVE SOIL EROSION SHALL BE DIVERTED TO A SAFE

SEEDBED PREPARATION MAY NOT BE REQUIRED WHERE HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT

1. TILLAGE AT A MINIMUM, SHALL ADEQUATELY LOOSEN THE SOIL TO A DEPTH OF 4 TO 6 INCHES;

IS TO BE USED. WHEN CONVENTIONAL SEEDING IS TO BE USED, SEEDBED PREPARATION WILL BE DONE AS

ALLEVIATE COMPACTION; INCORPORATE LIME AND FERTILIZER; SMOOTH AND FIRM THE SOIL; ALLOW FOR THE PROPER PLACEMENT OF SEED, SPRIGS, OR PLANTS; AND ALLOW FOR THE ANCHORING OF

4. ON SLOPES TOO STEEP FOR THE SAFE OPERATION OF TILLAGE EQUIPMENT, THE SOIL SURFACE SHALL BE PITTED OR TRENCHED ACROSS THE SLOPE WITH APPROPRIATE HAND TOOLS TO PROVIDE TWO

1. WHERE INDIVIDUAL PLANTS ARE TO BE SET, THE SOIL SHALL BE PREPARED BY EXCAVATING HOLES,

2. FOR NURSERY STOCK PLANTS, HOLES SHALL BE LARGE ENOUGH TO ACCOMMODATE ROOTS WITHOUT

WHERE PINE SEEDLINGS ARE TO BE PLANTED, SUBSOIL UNDER THE ROW 36 INCHES DEEP ON THE

CONTOUR FOUR TO SIX MONTHS PRIOR TO PLANTING. SUBSOILING SHOULD BE DONE WHEN THE SOIL

MIX THE SEED (INOCULATED IF NEEDED), FERTILIZER, AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH

SEEDING WILL BE DONE ON A FRESHLY PREPARED AND FIRMED SEEDBED. FOR BROADCAST PLANTING, USE

A CULTIPACKER SEEDER, DRILL, ROTARY SEEDER, OTHER MECHANICAL SEEDER, OR HAND SEEDING TO

NO-TILL SEEDING IS PERMISSIBLE INTO ANNUAL COVER CROPS WHEN PLANTING IS DONE FOLLOWING

MATURITY OF THE COVER CROP OR IF THE TEMPORARY COVER STAND IS SPARSE ENOUGH TO ALLOW

ADEQUATE GROWTH OF THE PERMANENT (PERENNIAL) SPECIES. NO-TILL SEEDING SHALL BE DONE WITH

APPROPRIATE NO-TILL SEEDING EQUIPMENT. THE SEÉD MUST BE UNIFORMLY DISTRIBUTED AND PLANTED

DISTRIBUTE THE SEED UNIFORMLY OVER THE AREA TO BE TREATED. COVER THE SEED LIGHTLY WITH 1/8

TO 1/4 INCH OF SOIL FOR SMALL SEED AND 1/2 TO 1 INCH FOR LARGE SEED WHEN USING A CULTIPACKER

WITH WATER AND APPLY IN A SLURRY UNIFORMLY OVER THE AREA TO BE TREATED. APPLY WITHIN ONE

PLACES 6 TO 8 INCHES APART IN WHICH SEED MAY LODGE AND GERMINATE. HYDRAULIC SEEDING MAY

AND PRACTICAL, SO THAT EQUIPMENT CAN BE USED SAFELY AND EFFICIENTLY DURING SEEDBED

OUTLET. DIVERSIONS AND OTHER TREATMENT PRACTICES SHALL CONFORM WITH THE APPROPRIATE

IS TO BE USED. VERTICAL BANKS SHALL BE SLOPED TO ENABLE PLANT ESTABLISHMENT.

PREPARATION, SEEDING, MULCHING AND MAINTENANCE OF THE VEGETATION.

DS2

DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

THE ESTABLISHMENT OF TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDINGS FOR SEASONAL PROTECTION ON DISTURBED OR DENUDED AREAS.

TO REDUCE RUNOFF AND SEDIMENT DAMAGE OF DOWN STREAM RESOURCES

TO PROTECT THE SOIL SURFACE FROM EROSION

TO IMPROVE WILDLIFE HABITAT TO IMPROVE AESTHETICS

TO IMPROVE TILTH, INFILTRATION AND AERATION AS WELL AS ORGANIC MATTER FOR PERMANENT PLANTINGS

# REQUIREMENT FOR REGULATORY COMPLIANCE

MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF DISTUR- BANCE. TEMPORARY GRASSING, INSTEAD OF MULCH, CAN BE APPLIED TO ROUGH GRADED AREAS THAT WILL BE EXPOSED FOR LESS THAN SIX MONTHS. IF AN AREA IS EXPECTED TO BE UNDISTURBED FOR LONGER THAN SIX MONTHS, PERMANENT PERENNIAL VEGETATION SHALL BE USED. IF OPTIMUM PLANTING CONDITIONS FOR TEMPORARY GRASSING IS LACKING, MULCH CAN BE USED AS A SINGULAR EROSION CONTROL DEVICE FOR UP TO SIX MONTHS BUT IT SHALL BE APPLIED AT THE APPROPRIATE DEPTH, ANCHORED, AND HAVE A CONTINUOUS 90% COVER OR GREATER OF THE SOIL

TEMPORARY GRASSING, INSTEAD OF MULCH, CAN BE APPLIED TO ROUGH GRADED AREAS THAT WILL BE EXPOSED FOR LESS THAN SIX MONTHS. TEMPORARY VEGETATIVE MEASURES SHOULD BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMICAL AND EFFECTIVE STABILIZATION. MOST TYPES OF TEMPORARY VEGETATION ARE IDEAL TO USE AS COMPANION CROPS UNTIL THE PERMANENT VEGETATION IS ESTABLISHED.

GRADING AND SHAPING EXCESSIVE WATER RUN-OFF SHALL BE REDUCED BY PROPERLY DESIGNED AND INSTALLED EROSION CONTROL PRACTICES SUCH AS CLOSED DRAINS, DITCHES, DIKES, DIVERSIONS, SEDIMENT BARRIERS AND OTHERS. NO SHAPING OR GRADING IS REQUIRED IF SLOPES CAN BE STABILIZED BY HAND—SEEDED VEGETATION OR IF HYDRAULIC SEEDING EQUIPMENT IS TO BE USED.

WHEN A HYDRAULIC SEEDER IS USED, SEEDBED PREPARATION IS NOT REQUIRED. WHEN USING CONVENTIONAL OR HANDSEEDING, SEEDBED PREPARATION IS NOT REQUIRED IF THE SOIL MATERIAL IS LOOSE AND NOT SEALED BY RAINFALL. WHEN SOIL HAS BEEN SEALED BY RAINFALL OR CONSISTS OF SMOOTH CUT SLOPES, THE SOIL SHALL BE PITTED, TRENCHED OR OTHERWISE SCARIFIED TO PROVIDE A PLACE FOR SEED TO LODGE AND

AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE OF ONE TON PER ACRE. GRADED AREAS REQUIRE LIME APPLICATION. SOILS CAN BE TESTED TO DETERMINE IF FERTILIZER IS NEEDED. ON REASONABLY FERTILE SOILS OR SOIL MATERIAL, FERTILIZER IS NOT REQUIRED. FOR SOILS WITH VERY LOW FERTILITY, 500 TO 700 POUNDS OF 10-10-10 FERTILIZER OR THE EQUIVALENT PER ACRE (12-16 LBS./1,000 SQ. FT.) SHALL BE APPLIED. FERTILIZER SHOULD BE APPLIED BEFORE LAND PREPARATION AND INCORPORATED WITH A DISK, RIPPER OR CHISEL.

SELECT A GRASS OR GRASS-LEGUME MIXTURE SUITABLE TO THE AREA AND SEASON OF THE YEAR. SEED SHALL BE APPLIED UNIFORMLY BY HAND, CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDRAULIC SEEDER (SLURRY INCLUDING SEED AND FERTILIZER). DRILL OR CULTIPACKER SEEDERS SHOULD NORMALLY PLACE SEED ONE-QUARTER TO ONE-HALF INCH DEEP. APPROPRIATE DEPTH OF PLANTING IS TEN TIMES THE SEED DIAMETER. SOIL SHOULD BE "RAKED" LIGHTLY TO COVER SEED WITH SOIL IF SEEDED BY HAND.

TEMPORARY VEGETATION CAN, IN MOST CASES, BE ESTABLISHED WITHOUT THE USE OF MULCH. MULCH WITHOUT SEEDING SHOULD BE CONSIDERED FOR SHORT TERM PROTECTION. REFER TO DS1-DISTURBED AREA STABILIZATION (WITH MULCHING ONLY).

DURING TIMES OF DROUGHT, WATER SHALL BE APPLIED AT A RATE NOT CAUSING RUNOFF AND EROSION. THE SOIL SHALL BE THOROUGHLY WETTED TO A DEPTH THAT WILL INSURE GERMINATION OF THE SEED. SUBSEQUENT APPLICATIONS SHOULD BE MADE WHEN NEEDED.

SHRUBS, VINES AND SPRIGS MAY BE PLANTED WITH APPROPRIATE PLANTERS OR HAND TOOLS. PINE TREES SHALL BE PLANTED MANUALLY IN THE SUBSOIL FURROW. EACH PLANT SHALL BE SET IN A MANNER THAT

WILL AVOID CROWDING THE ROOTS. NURSERY STOCK PLANTS SHALL BE PLANTED AT THE SAME DEPTH OR SLIGHTLY DEEPER THAN THEY GREW AT THE NURSERY. THE TIPS OF VINES AND SPRIGS MUST BE AT OR SLIGHTLY ABOVE THE GROUND SURFACE. WHERE INDIVIDUAL HOLES ARE DUG, FERTILIZER SHALL BE PLACED

IN THE BOTTOM OF THE HOLE, TWO INCHES OF SOIL SHALL BE ADDED AND THE PLANT SHALL BE SET IN

MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS

1. DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW

3. ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER,

. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCH IS NOT REQUIRED. BITUMINOUS TREATED ROVING MAY BE APPLIED ON PLANTED AREAS ON SLOPES, IN DITCHES OR DRY WATERWAYS TO PREVENT EROSION. BITUMINOUS TREATED ROVING SHALL BE APPLIED WITHIN 24 HOURS AFTER AN AREA HAS BEEN PLANTED. APPLICATION RATES AND MATERIALS MUST MEET GEORGIA

WOOD CELLULOSE AND WOOD PULP FIBERS SHALL NOT CONTAIN GERMINATION OR GROWTH INHIBITING

FACTORS. THEY SHALL BE EVENLY DISPERSED WHEN AGITATED IN WATER. THE FIBERS SHALL CONTAIN A

STRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY WITHIN 24 HOURS AFTER SEEDING AND/OR PLANTING

THE MULCH MAY BE SPREAD BY BLOWER-TYPE SPREADING EQUIPMENT, OTHER SPREADING EQUIPMENT OR

ANCHOR STRAW OR HAY MULCH IMMEDIATELY AFTER APPLICATION BY ONE OF THE FOLLOWING METHODS:

1. EMULSIFIED ASPHALT CAN BE (A) SPRAYED UNIFORMLY ONTO THE MULCH AS IT IS EJECTED FROM THE

BLOWER MACHINE OR (B) SPRAYED ON THE MULCH IMMEDIATELY FOLLOWING MULCH APPLICATION WHEN

SATISFACTORY FOR SPRAYING. THE MIXTURE SHALL CONSIST OF 100 GALLONS OF GRADE SS-1H OR CSS-1H

2. HAY AND STRAW MULCH SHALL BE PRESSED INTO THE SOIL IMMEDIATELY AFTER THE MULCH IS SPREAD.

MAY BE SMOOTH OR SERRATED AND SHOULD BE 20 INCHES OR MORE IN DIAMETER AND 8 TO 12

GROUND WITHOUT CUTTING IT, LEAVING MUCH OF IT IN AN ERECT POSITION. MULCH SHALL NOT BE

3. SYNTHETIC TACKIFIERS OR BINDERS APPROVED BY GDOT SHALL BE APPLIED IN CONJUNCTION WITH OR

IMMEDIATELY AFTER THE MULCH IS SPREAD. SYNTHETIC TACKIFIERS SHALL BE MIXED AND APPLIED

4. RYE OR WHEAT CAN BE INCLUDED WITH FALL AND WINTER PLANTINGS TO STABILIZE THE MULCH. THEY

5. PLASTIC MESH OR NETTING WITH MESH NO LARGER THAN ONE INCH BY ONE INCH MAY BE NEEDED TO

MATERIALS SHALL BE INSTALLED AND ANCHORED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

ANCHOR STRAW OR HAY MULCH ON UNSTABLE SOILS AND CONCENTRATED FLOW AREAS. THESE

ACCORDING TO MANUFACTURER'S SPECIFICATIONS. REFER TO TB-TACKIFIERS AND BINDERS.

SHALL BE APPLIED AT A RATE OF ONE-QUARTER TO ONE HALF BUSHEL PER ACRE.

INCHES APART. THE EDGES OF THE DISKS SHALL BE DULL ENOUGH TO PRESS THE MULCH INTO THE

A SPECIAL "PACKER DISK" OR DISK HARROW WITH THE DISKS SET STRAIGHT MAY BE USED. THE DISKS

WOOD CELLULOSE OR WOOD FIBER MULCH SHALL BE APPLIED UNIFORMLY WITH HYDRAULIC SEEDING

THE COMBINATION F ASPHALT EMULSION AND WATER SHALL CONSIST OF A HOMOGENEOUS MIXTURE

PAVEMENTS, CURBS, SIDEWALKS, AND ALL OTHER STRUCTURES FROM ASPHALT DISCOLORATION.

CARE SHALL BE TAKEN AT ALL TIMES TO PROTECT STATE WATERS, THE PUBLIC, ADJACENT PROPERTY,

STRAW OR HAY IS SPREAD BY METHODS OTHER THAN SPECIAL BLOWER EQUIPMENT.

4. SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF THREE TONS

5. PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER

THE RATE INDICATED ABOVE) AFTER HYDRAULIC SEEDING.

DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.

SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 1/4:1 OR STEEPER.

GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDED AREAS.

DYE TO ALLOW VISUAL METERING AND AID IN UNIFORM APPLICATION DURING SEEDING.

BY HAND. MULCH SHALL BE APPLIED TO COVER 75% OF THE SOIL SURFACE.

EMULSIFIED ASPHALT AND 100 GALLONS OF WATER PER TON OF MULCH.

IRRIGATION SHALL BE APPLIED AT A RATE THAT WILL NOT CAUSE RUNOFF.

SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2

2. WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE

APPLIED AT THE RATE OF 500 POUNDS PER ACRE. DRY STRAW OR DRY HAY SHALL BE APPLIED (AT

# GRASSING TEMPORARY

# SEEDING RATES FOR

TEMPODADY CEEDING

<u>  LM                                   </u>	<u> PORARY</u>	<u>SEED</u>	<u>ing.</u>
SPECIES	RATE PER 1,000 SQ.FT.	RATE PER ACRE.*	PLANTING DATES**
RYE	3.9 LBS.	3 BU	9/1 – 3/1
RYE GRASS	0.9 LBS.	40 LBS.	8/15 – 4/1
ANNUAL LESPEDEZA	0.9 LBS.	40 LBS.	1/15 -9/15
WEEPING LOVEGRASS	0.1 LBS.	4 LBS.	2/15 - 6/15
SUNDANGRASS	1.4 LBS.	60 LBS.	3/1 - 8/1
BROWN MILLET	0.9 LBS.	40 LBS.	4/1 - 7/15
WHEAT	4.1 LBS.	3 BU	9/15 - 2/1

\* UNUSUAL SITE CONDTIONS MAY REQUIRE HEAVIER SEEDING RATES. \*\* SEEDING DATES MAY NEED TO BE ALTERED TO FIT TMPERATURE VARIATIONS AND CONDITIONS.

# DUST CONTROL ON DISTURBED AREAS

A. TEMPORARY METHODS

CONTROLLING SURFACE AND AIR MOVEMENT OF DUST ON CONSTRUCTION SITES, ROADS, AND DEMOLITION SITES.

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO SURFACE AND AIR MOVEMENT OF DUST WHERE ON AND OFF-SITE DAMAGE MAY OCCUR WITHOUT TREATMENT. METHOD AND MATERIALS

MULCHES. SEE STANDARD DS1-DISTURBED AREA STABILIZATION (WITH MULCHING ONLY). SYNTHETIC RESINS MAY BE USED INSTEAD OF ASPHALT TO BIND MULCH MATERIAL. REFER TO STANDARD TB-TACKIFIERS AND BINDERS. RESINS SUCH AS CURASOL OR

TERRATACK SHOULD BE USED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. VEGETATIVE COVER. SEE STANDARD DS2- DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)

SPRAY-ON ADHESIVES. THESE ARE USED ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS) KEEP TRAFFIC OFF THESE AREAS. REFER TO STANDARD TB-TACKIFIERS AND BINDERS.

TILLAGE. THIS PRACTICE IS DESIGNED TO ROUGHEN AND BRING CLODS TO THE SURFACE. IT IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE WIND EROSION STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE

IRRIGATION. THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS WET.

BARRIERS. SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 15 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING WIND EROSION.

CALCIUM CHLORIDE. APPLY AT RATE THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

B. PERMANENT METHODS

PERMANENT VEGETATION. SEE STANDARD DS3-DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION). EXISTING TREES AND LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION IF LEFT IN PLACE.

TOPSOILING. THIS ENTAILS COVERING THE SURFACE WITH LESS EROSIVE SOIL MATERIAL. SEE STANDARD TP-TOPSOILING. STONE. COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL. SEE STANDARD CR-CONSTRUCTION ROAD STABILIZATION.

DUST CONTROL

# TABLE 6-5.1 FERTILIZER REQUIREMENTS

	PE OF ECIES	YEAR	ANALYSIS FOR EQUIVALENT N-P-K	RATE	N TOP DRESSING RATE
1.	COOL SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 LBS./AC. 1000 LBS./AC. 400 LBS./AC.	50-100 LBS./AC. 1/2/ - 30
2.	COOL SEASON GRASSES AND LEGUMES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10 0-10-10	1500 LBS./AC. 1000 LBS./AC. 400 LBS./AC.	0-50 LBS./AC. 1/ -
3.	GROUND COVERS	FIRST SECOND MAINTENANCE	10-10-10 10-10-10 10-10-10	1300 LBS./AC. 1300 LBS./AC. 1100 LBS./AC.	_ _ _
4.	PINE SEEDLINGS	FIRST	20-10-6	ONE 21-GRAM PELLET PER SEEDING PLACED IN THE CLOSING HOLE	_
5.	SHRUB LESPEDEZA	FIRST MAINTENANCE	0-10-10 0-10-10	700 LBS./AC. 700 LBS./AC.4/	_
6.	TEMPORARY COVER CROPS SEEDED ALONE	FIRST	10/10/2010	500 LBS./AC.	30 LB./ACRE/ 5/
7.	WARM SEASON GRASSES	FIRST SECOND MAINTENANCE	6-12-12 6-12-12 10-10-10	1500 LBS./AC. 1000 LBS./AC. 400 LBS./AC.	50-100 LBS./AC. 2/6/ 50-100 LBS./AC. 2/ 30 LBS./AC.
8.	WARM SEASON GRASSES AND LEGUMES	FIRST SECOND MAINTENANCE	6-12-12 0-10-10 0-10-10	1500 LBS./AC. 1000 LBS./AC. 400 LBS./AC.	50 LBS./AC./6/

1/ APPLY IN SPRING FOLLOWING SEEDING. 2/ APPLY IN SPLIT APPLICATIONS WHEN HIGH RATES ARE USED. 3/ APPLY IN 3 SPLIT APPLICATIONS.

4/ APPLY WHEN PLANTS ARE PRUNED. 5/ APPLY TO GRASS SPECIES ONLY.

6/ APPLY WHEN PLANTS GROW TO A HEIGHT OF 2 TO 4 INCHES.

	Temporary Cover	Rate pe		Permanent Cover	Rate per	Acre
Month	Ds2	Seeded Alone	Added To Mix	Ds3	Seeded Alone	Added To Mix
January	Rye grass Rye	40 lbs. 3 bu.	 .5 bu.	Unhulled Bermuda Sericea Lespedeza (1)	10 lbs. 75 lbs.	6 lbs. 
February	Annual Lespedeza Rye grass Rye	40 lbs. 40 lbs. 3 bu.	10 lbs.  .5 bu.	Unhulled Bermuda Sericea Lespedeza (1)	10 lbs. 75 lbs.	6 lbs. 
March	Weeping Lovegrass Annual Lespedeza	4 lbs. 40 lbs.	2 lbs. 10 lbs.	Pensacola Bahia Hulled Bermuda Sericea Lespedeza (2)	60 lbs. 10 lbs. 60 lbs.	30 lbs 6 lbs. 
April	Weeping Lovegrass Sudan Grass	4 lbs. 60 lbs. 40 lbs.	2 lbs.  10 lbs.	Pensacola Bahia Weeping Lovegrass Hulled Bermuda Sericea Lespedeza (2)	60 lbs. 6 lbs. 10 lbs. 60 lbs.	30 lbs 6 lbs. 6 lbs. 
May	Weeping Lovegrass Sudan Grass	4 lbs. 60 lbs. 40 lbs.	2 lbs.  10 lbs.	Pensacola Bahia Weeping Lovegrass Hulled Bermuda Sericea Lespedeza (2)	60 lbs. 6 lbs. 10 lbs. 60 lbs.	30 lbs 6 lbs. 6 lbs. 
June	Pearl Millet Sudan Grass	50 lbs. 60 lbs. 40 lbs.	 10 lbs.	Pensacola Bahia Hulled Bermuda	60 lbs. 10 lbs.	30 lbs 6 lbs.
July	Pearl Millet Sudan Grass	50 lbs. 60 lbs. 40 lbs.	 10 lbs.	Pensacola Bahia	60 lbs.	30 lbs
August	Pearl Millet Rye	50 lbs. 3 bu.	 .5 bu.	Pensacola Bahia	60 lbs.	30 lbs
September	Rye grass Oats Wheat	40 lbs. 4 bu. 3 bu.	 1 bu. .5 bu.	Sericea Lespedeza (1)	75 lbs.	
October	Rye grass Oats Wheat Rye Barley	40 lbs. 4 bu. 3 bu. 3 bu. 3 bu.	 1 bu. .5 bu. .5 bu. .5 bu.	Sericea Lespedeza (1)	75 lbs.	
November	Rye grass Oats Wheat Rye Barley	40 lbs. 4 bu. 3 bu. 3 bu. 3 bu.	 1 bu. .5 bu. .5 bu. .5 bu.	Sericea Lespedeza (1) Unhulled Bermuda	75 lbs. 10 lbs.	 6 lbs.
December	Rye grass Oats Wheat Rye Barley	40 lbs. 4 bu. 3 bu. 3 bu. 3 bu.	 1 bu. .5 bu. .5 bu. .5 bu.	Sericea Lespedeza (1) Unhulled Bermuda	75 lbs. 10 lbs.	 6 lbs.

FERTILIZER:

YEAR	ANALYSIS N-P-K	RATE	N TOP DRESSING RATE
FIRST	6-12-12	1500 LBS/AC	50-100 LBS.AC
SECOND	6-12-12	800 LBS/AC	50-100 LBS/AC
MAINTENANCE	10-10-10	400 LBS/AC	30 LBS/AC

FOR BEST RESULTS TAKE AT LEAST ONE SAMPLE OF SOIL TO THE COUNTY EXTENSION AGENT FOR ANALYSIS TO DETERMINE THE BEST

1. DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT THE RATE OF 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2 1/2 TONS PER ACRE. 2. WOOD CELLULOSE MULCH OR WOOD PULP FIBER SHALL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. DRYSTRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED ABOVE) AFTER HYDRAULIC SEEDING. 3. ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER, WHICH INCLUDES A TACKIFIER, SHALL BE USED WITH HYDRAULIC

SEEDING ON SLOPES 3/4:1 OR STEEPER. 4. SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF THREE TONS PER ACRE. 5. PINE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR

AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE OF ONE TON PER ACRE. GRADED AREAS REQUIRE LIME APPLICATION. SOILS CAN BE TESTED TO DETERMINE IF FERTILIZER IS NEEDED. ON REASONABLY FERTILE SOILS OR SOIL MATERIAL, FERTILIZER IS NOT REQUIRED. FOR SOILS WITH VERY LOW FERTILITY, 500 TO 700 POUNDS OF 10-10-10 FERTILIZER OR THE EQUIVALENT PER ACRE (12-16 LBS./1,000 SQ. FT.) SHALL BE APPLIED. FERTILIZER SHOULD BE APPLIED BEFORE LAND PREPARATION AND INCORPORATED WITH A DISK, RIPPER OR CHISEL.

SEEDED AREAS. 6. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOD, MULCH IS NOT REQUIRED

THE CONTRACTOR SHALL VERIFY ALL DIMENSION CONTAINED WITHIN THIS SET OF DOCUMENTS AN SHALL REPORT ANY DISCREPANCIES TO T. R. LONG ENGINEERING, P.C. FOR IMMEDIATE RESOLUTION.

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SHEET NAME: SITE DETAILS

EVISIONS:

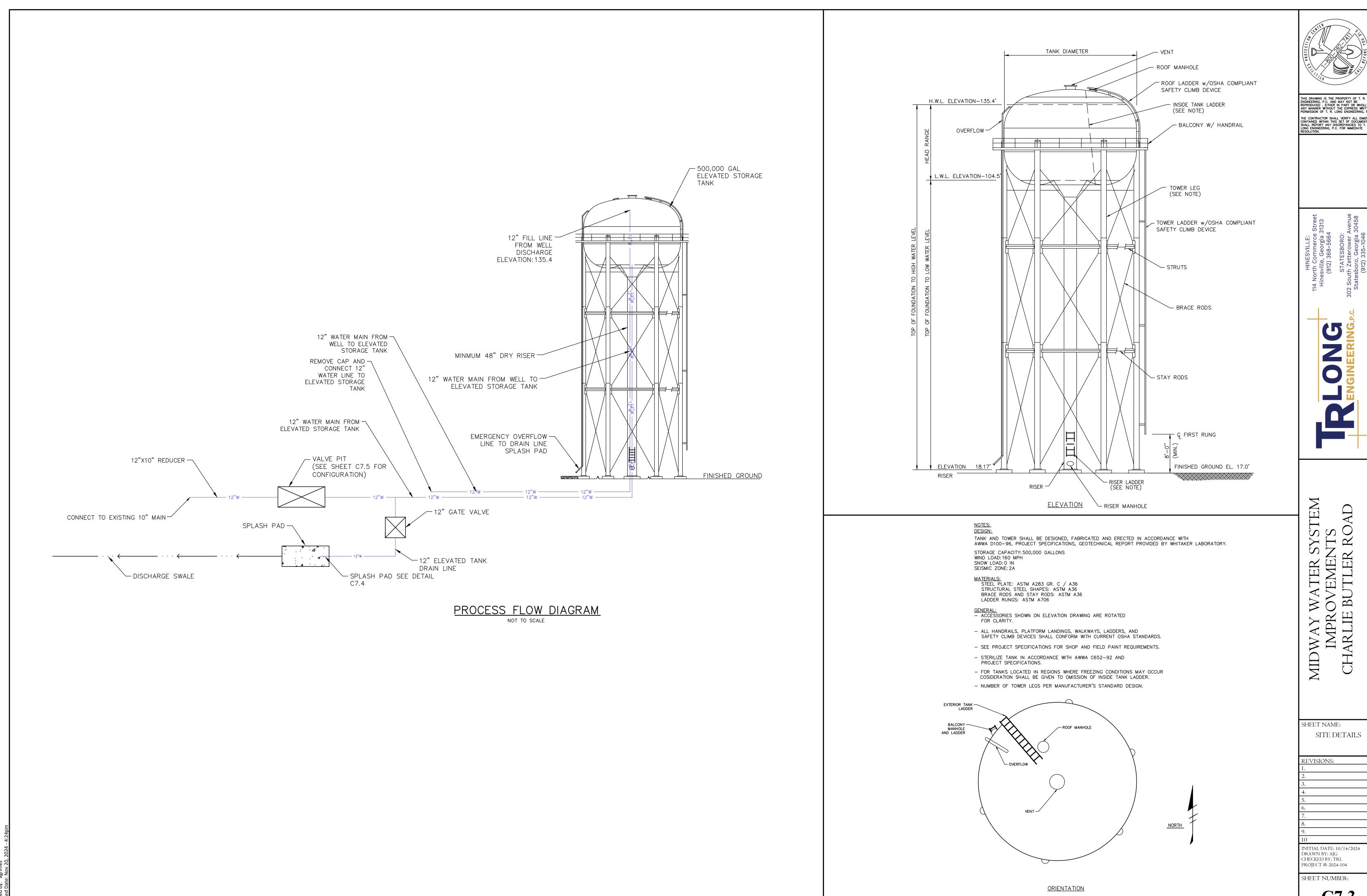
INITIAL DATE: 10/14/2024 DRAWN BY: AIG CHECKED BY: TRL

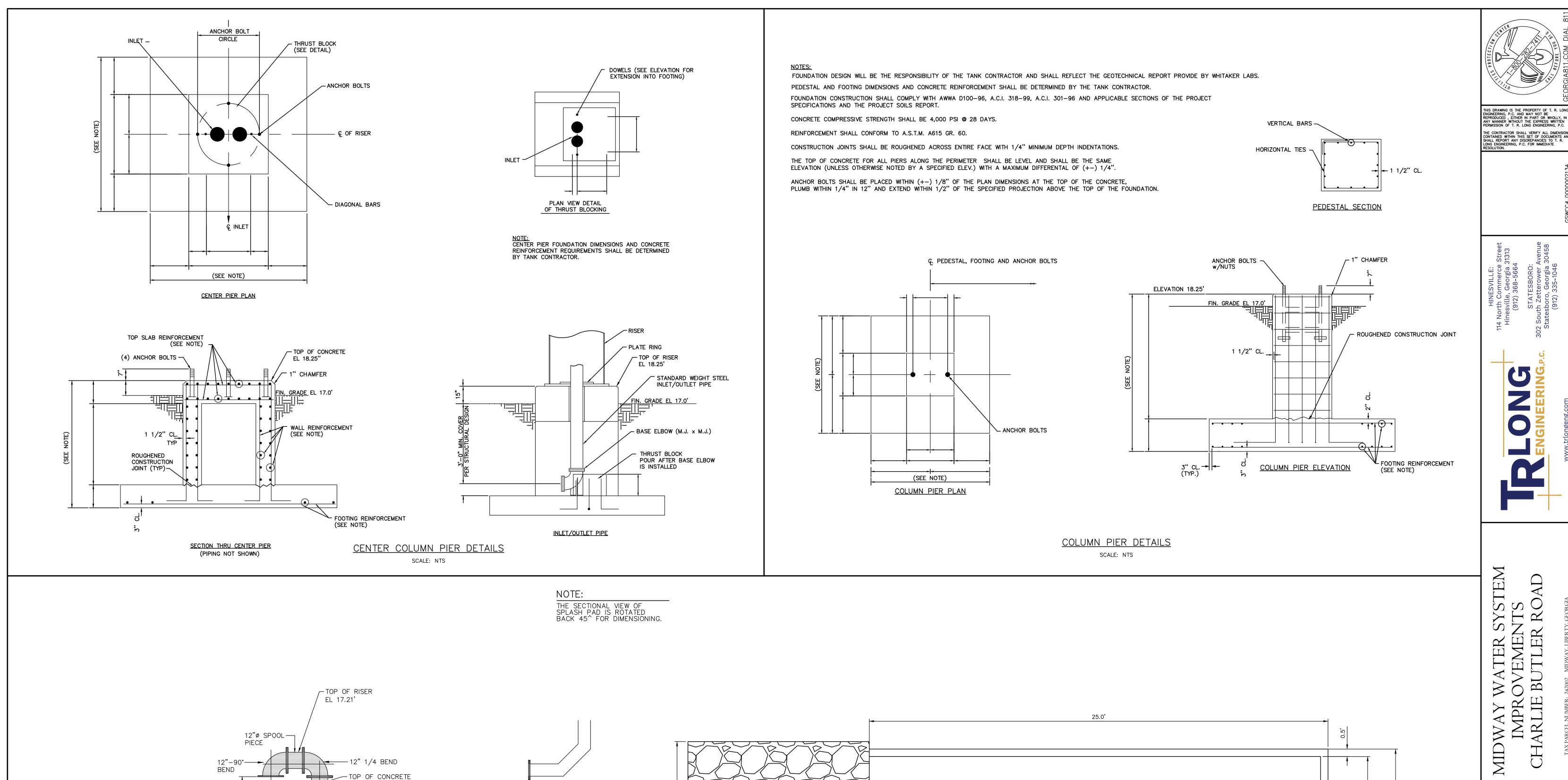
PROJECT #: 2024-104 SHEET NUMBER:

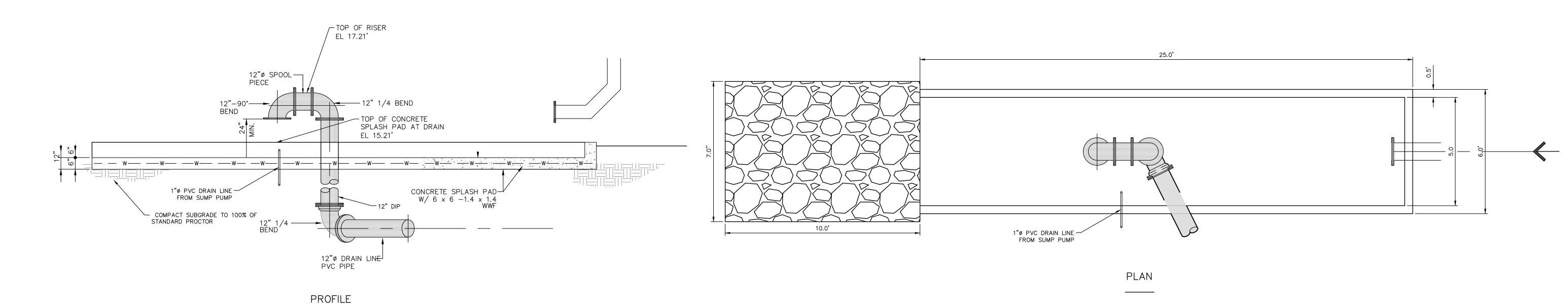
GRASSING PERMANENT

EQUIPMENT.

PLOWED INTO THE SOIL







ELEVATED TANK DRAIN SPLASH PAD DETAIL

SCALE: NTS

IO

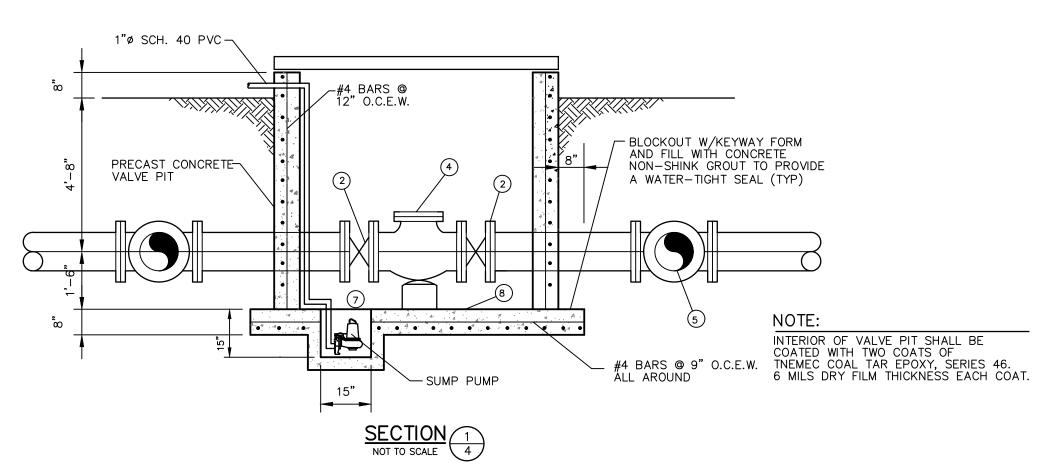
INITIAL DATE: 10/14/2024
DRAWN BY: AJG
CHECKED BY: TRL
PROJECT #: 2024-104

SHEET NUMBER:

C7.

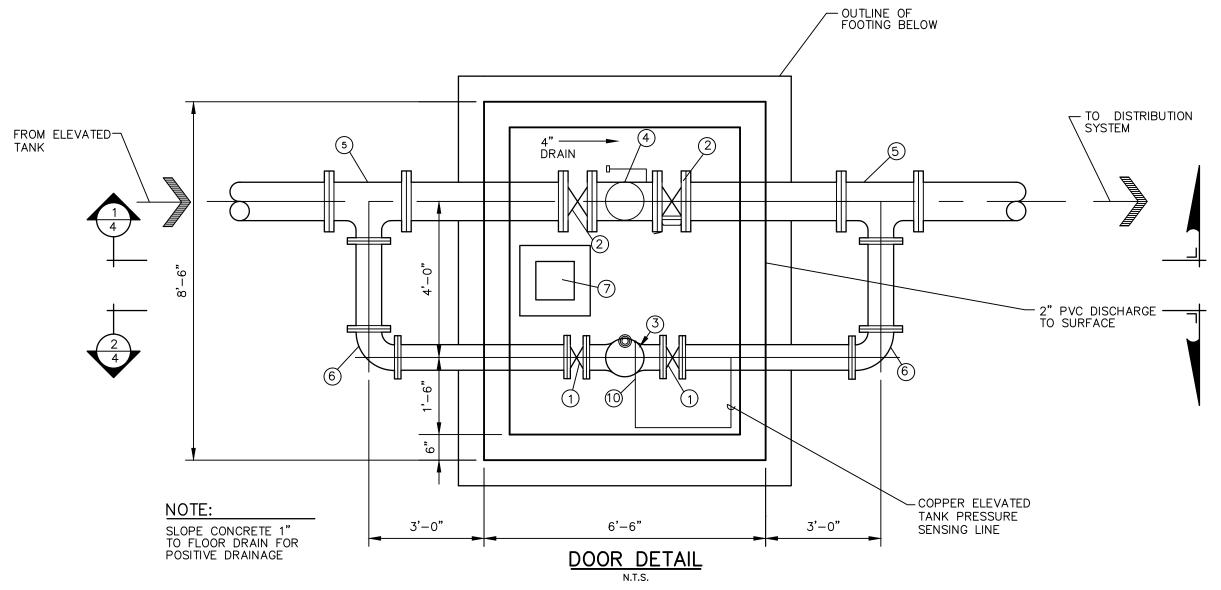


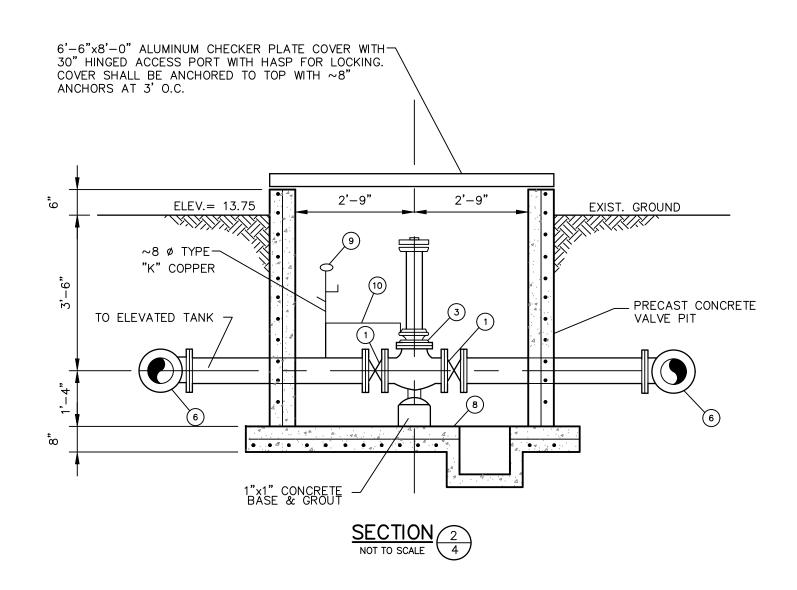
SYM.	DESCRIPTION	SIZE
1	BUTTERFLY VALVE, FL.xFL.	8"
2	BUTTERFLY VALVE, FL×FL	12"
3	SINGLE ACTING ALTITUDE VALVE, GA. 3200—D, OR EQUAL	8"
4	CHECK VALVE W/LEVER & WEIGHT MUELLER A-2602-6-02, OR EQUAL	12"
5	TEE, FLxFL	12"×8"
6	90° BEND, FLxFL	8"
7	1HP - SUMP PUMP	1"
8	CONCRETE SLAB W/6"x6" #6 WWF	
9	PET COCK VALVE & 0-100 PSI/ 0-230 FT. WATER PRESSURE GAUGE	3∼8 DIA.
10	PIPE INSULATED & WRAPPED	3∼8 DIA. COPPER

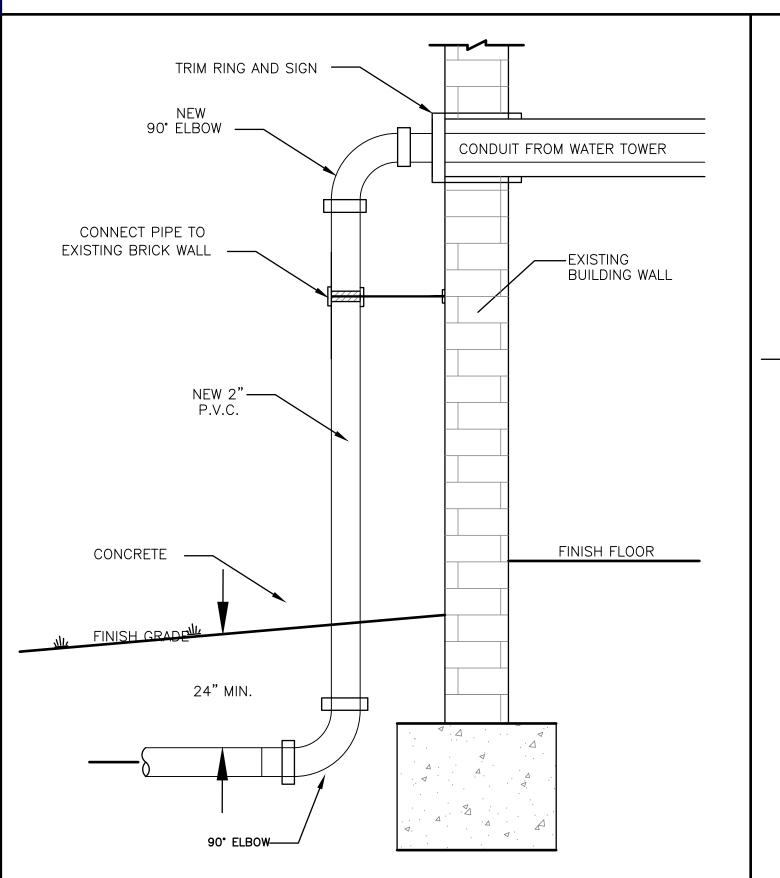


VALVE PIT DETAILS

NOT TO SCALE

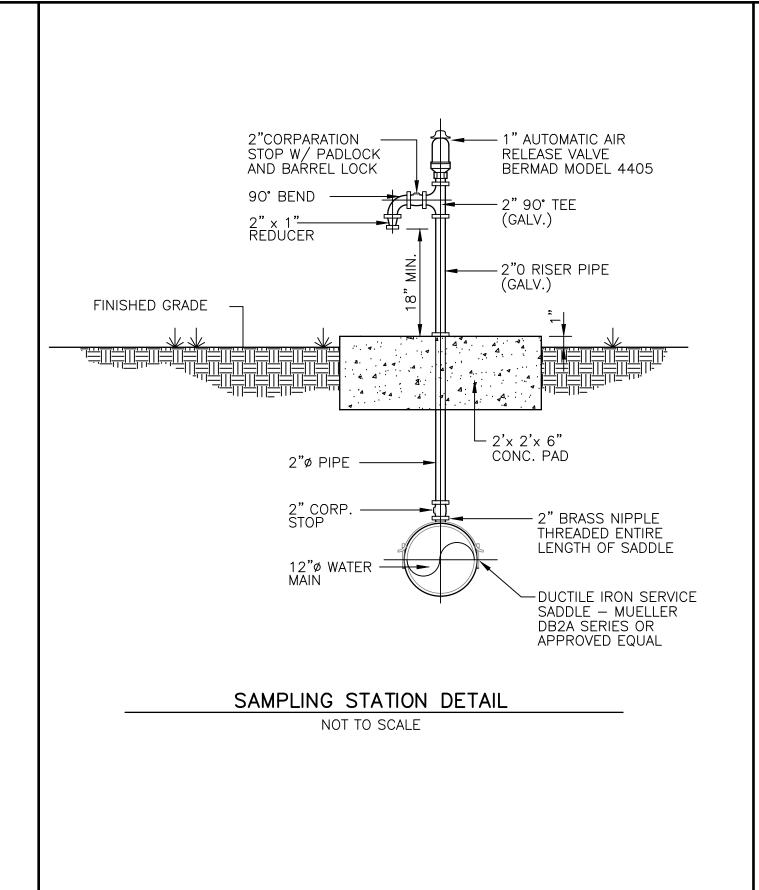






PIPE SLEEVE THRU WALL DETAIL

NOT TO SCALE



MIDWAY WATER SYSTEM
IMPROVEMENTS
CHARLIE BUTLER ROAD

SHEET NAME:
SITE DETAILS

REVISIONS:

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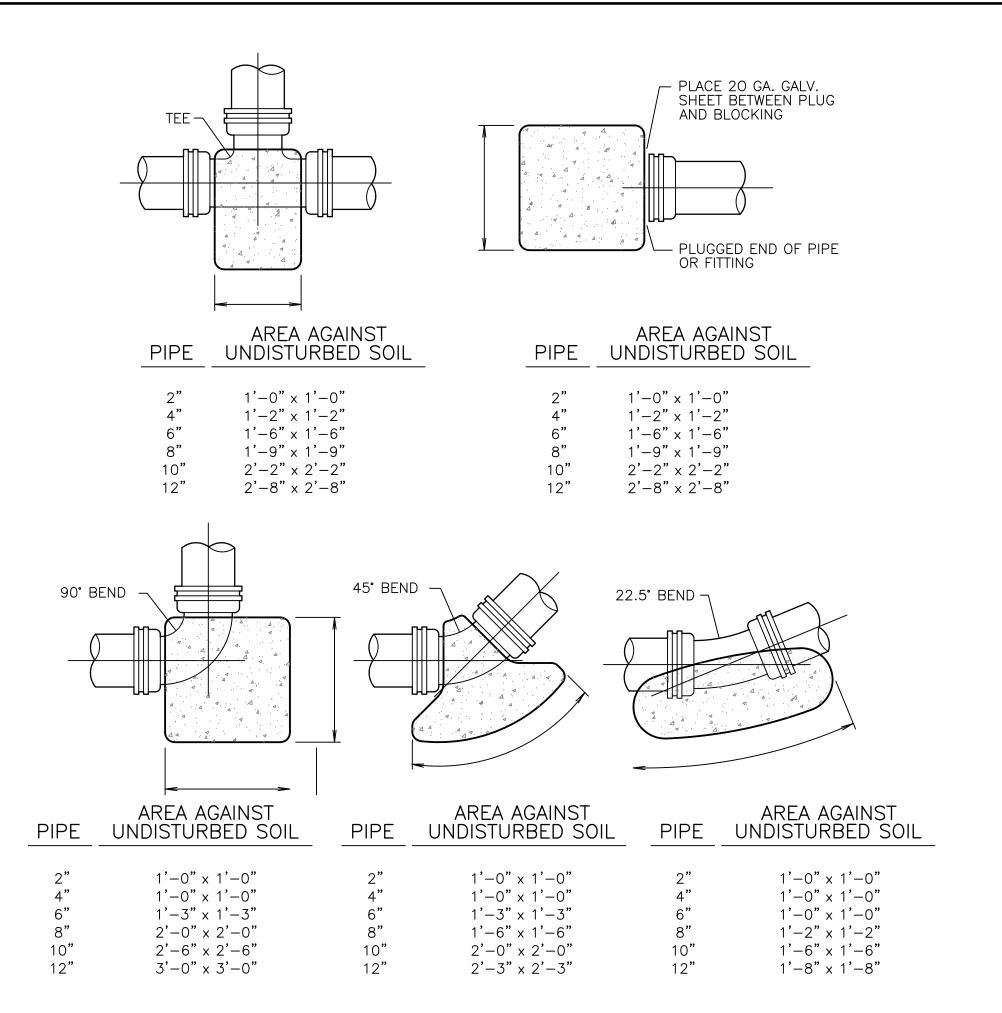
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INITIAL DATE: 10/14/2024
DRAWN BY: AJG
CHECKED BY: TRL

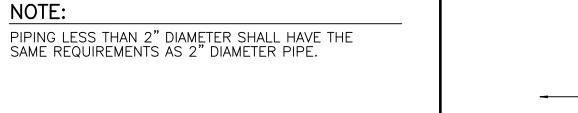
PROJECT #: 2024-104
SHEET NUMBER:

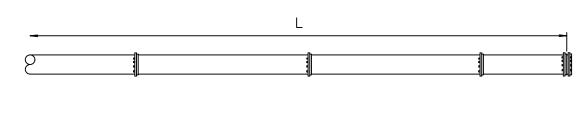
C7.5



REACTION BLOCKING DETAILS

NOT TO SCALE



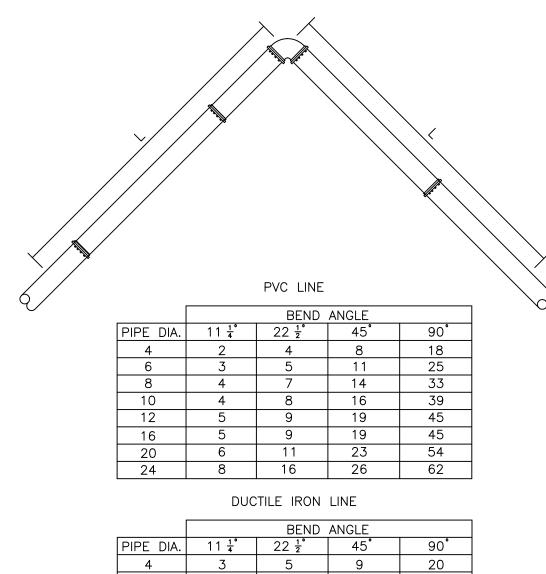


	ENE WRAPPED IRON LINE	PVC	LINE
PIPE DIA.	L	PIPE DIA.	L
4	58	4	39
6	82	6	55
8	107	8	72
10	128	10	87
12	151	12	102
16	193	16	131
20	234	20	159
24	273	24	185

- NOTES: 1. LENGTH OF RESTRAINT SHOWN IS IN FEET. FITTING DIAMETERS ARE IN INCHES. 2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL
- FOR LINE STUBS, THE LENGTH OF RESTRAINT (L) SHALL BE FROM THE VALVE AND NOT THE CAP.
   INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER

DEAD END RESTRAINT

N.T.S.



 DUCTILE IRON LINE

 BEND ANGLE

 PIPE DIA.
 11 ½° 22 ½° 45° 90°

 4
 3
 5
 9
 20

 6
 3
 6
 12
 28

 8
 4
 8
 16
 36

 10
 5
 9
 19
 43

 12
 6
 11
 22
 51

 16
 7
 14
 28
 65

 20
 8
 16
 33
 79

 24
 9
 19
 38
 92

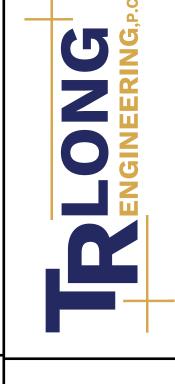
MINIMUM RESTRAINED LENGTH (L)

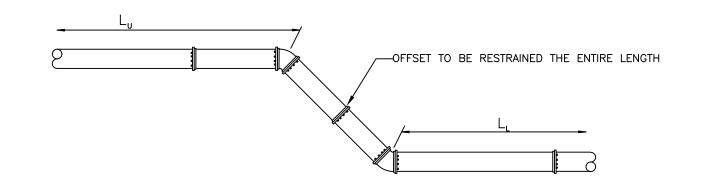
LENGTH OF RESTRAINT SHOWN IS IN FEET. PIPE DIAMETERS ARE IN INCHES.
 WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.

3. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER

HORIZONTAL BEND RESTRAINT

N.T.S.





			PVC LINE					
			BEND ANGLE					
PI	PE DIA.	11	1 °	22	1°	45	· °	
		حل	L	حا	ئا	حل	L	
	4	4	1	8	2	17	3	
	9	6	1	11	2	23	4	
	8	8	2	15	3	30	6	
	10	9	2	18	4	36	7	
	12	11	2	21	4	43	8	
	16	10	3	21	5	42	10	
	20	13	3	25	6	51	12	
	24	15	4	29	7	60	15	

# POLYETHELYNE WRAPPED DUCTILE IRON LINE

			BEND ANGLE				
F	PIPE DIA.	11	1 °	22	1°	45	. °
		٦	L	Lυ	L	Lυ	L
	4	6	1	12	2	24	4
	6	0	2	17	3	34	5
	8	11	2	22	3	45	7
	10	13	2	26	4	53	8
	12	15	3	30	5	63	9
	16	19	3	39	6	80	12
	20	23	4	47	7	97	15
	24	27	4	55	8	113	17

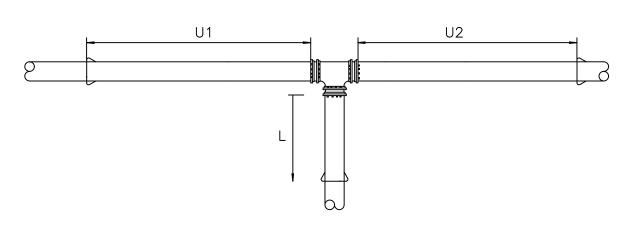
NOTES:

1. LENGTH OF RESTRAINT SHOWN IS IN FEET. PIPE DIA. IS IN INCHES

2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.

3. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER

VERTICAL BEND RESTRAINT
N.T.S.



- NOTES:
  1. LENGTH OF RESTRAINT SHOWN IS IN FEET. FITTING DIAMETERS ARE IN INCHES.
- 2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC
- 3. U1 AND U2 = UNINTERRUPTED STRAIGHT RUNS OF PIPE IN EACH DIRECTION.
- 4. Ur = THE SMALLER OF U1 OR U2
- 5. L = MINIMUM RESTRAINED LENGTH ALONG THE BRANCH.
- 6. WHERE Ur IS LESS THAN 5', RESTRAIN TEE AS A 90' HORIZONTAL BEND.
- 7. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER

PVC	LINE

TEE Ur	5'-10'	11'-20'	21'-35'	> 35'
4X4	43	28	4	*
6X4	38	17	*	*
6X6	64	49	25	*
8X4	34	6	*	*
8X6	61	42	10	*
8X8	87	72	48	12
10X4	29	*	*	*
10X6	58	34	*	*
10X8	84	66	35	*
10X10	106	91	67	31
12X4	24	*	*	*
12X6	54	26	*	*
12X8	82	60	23	*
12X10	104	86	57	13
12X12	126	112	87	51

MINIMUM RESTRAINED LENGTH (L)
\*RESTRAIN AT TEE ONLY.

TEE RESTRAINT (PVC PIPE)

N.T.S.

PVC LINE POLYETHELYNE WRAPPED DUCTILE IRON LINE

REDUCER	L	PVC DESIGN:	REDUCER	L
6X4	29	SOIL TYPE: SM TRENCH TYPE: 3 COVER: 3' <12" DIA. 4' >12" DIA. TEST PRESSURE: 150 PSI  PE WRAPPED DIP: SOIL TYPE: SM TRENCH TYPE: 3 COVER: 3' TEST PRESSURE: 150 PSI	6X4	43
8X4	52		8X4	77
8X6	31		8X6	45
10X4	71		10X4	104
10X6	53		10X6	79
10X8	29		10X8	43
12X4	89		12X4	131
12X6	74		12X6	110
12X8	54		12X8	80
12X10	30		12X10	45
16X6	111		16X6	163
16X8	96		16X8	141
16X10	78		16X10	115
16X12	56		16X12	82
20X10	117		20X10	172
20X12	100		20X12	147
20X16	56		20X16	82
24X12	137		24X12	201
24X16	101		24X16	149
24X20	56		24X20	82

U = MINIMUM UNINTERRUPTED STRAIGHT RUN OF PIPE ON SMALL SIDE OF

- L = MINIMUM RESTRAINED LENGTH.
- \* WHERE MINIMUM "U" IS NOT MET, PIPE ON LARGE SIDE OF REDUCER SHALL BE RESTRAINED FOR A MINIMUM OF "L" FEET.

- 1. LENGTH OF RESTRAINT SHOWN IS IN FEET. FITTING DIAMETERS ARE IN INCHES.
  2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS
- 3. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER

REDUCER RESTRAINT

N.T.S.

MIDWAY WATER SYSTEM IMPROVEMENTS CHARLIE BUTLER ROAD

SHEET NAME:
SITE DETAILS

REVISIONS:

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9. IO INITIAL DATE: 10/14/2024 DRAWN BY: AJG CHECKED BY: TRL PROJECT #: 2024-104

SHEET NUMBER:

C7.6