

## **GENERAL NOTES**

POTABLE WATER SERVICE WILL BE PROVIDED BY ECUA

WASTEWATER SERVICE WILL BE PROVIDED BY ECUA

TOPOGRAPHIC INFORMATION PROVIDED BY A SURVEY FROM MERRILL PARKER SHAW, INC. DATED JUNE 6, 2023. ELEVATIONS ARI

-ESCAMBIA COUNTY - SITE PLAN PERMIT

-NWFWMD - ENVIRONMENTAL RESOURCE PERMIT

-ECUA/FDEP UTILITIES - WATER & FORCE MAIN PERMIT -FDOT - DRAINAGE CONNECTION EXEMPTION PERMIT

NOTE: ALL SIGNS WILL REQUIRE A SEPARATE ESCAMBIA COUNTY SIGN PERMIT

1. ALL CONSTRUCTION COVERED BY THESE PLANS SHALL COMPLY WITH THE MATERIAL REQUIREMENTS AND QUALITY CONTROL STANDARDS CONTAINED IN THE ESCAMBIA COUNTY LAND DEVELOPMENT GODE AND FDOT SPECIFICATIONS.

2. NO SITE WORK SHALL BE CONDUCTED PRIOR TO OBTAINING A "SITE PERMIT" FROM THE COUNTY.

3. ALL MATERIALS, MACHINERY, AND VEHICLES SHALL BE STORED ON-SITE IN AN ORDERLY FASHION.

4. ALL STORMWATER MANAGEMENT SYSTEMS SHALL BE COMPLETED PRIOR TO THE CONSTRUCTION OF IMPERVIOUS AREAS.

## PROJECT TEAM

DEVELOPER: CAH DEVELOPMENTS, LLC. 41 N. JEFFERSON STREET PENSACOLA, FLORIDA 32502 (850) 607-6069

OWNER: RANSLEY STATION DEVELOPMENT, LLC 41 N. JEFFERSON STREET PENSACOLA, FLORIDA 32502

CIVIL ENGINEER CONSULTANT: KIMLEY-HORN AND ASSOCIATES, INC. 120 RICHARD JACKSON BOULEVARD

PANAMA CITY BEACH, FLORIDA 32407

(850) 607-6069 4926 N. DAVIS HIGHWAY PENSACOLA, FLORIDA 32503

## UTILITY PROVIDERS

WATER, SEWER & RECLAIMED: EMERALD COAST UTILITY AUTHORITY PO BOX 15311

2421 EXECUTIVE PLAZA PENSACOLA, FLORIDA 32504 PENSACOLA, FLORIDA 32514 (850) 857-4564 (850) 969-3310

NATURAL GAS: PENSACOLA ENERGY 1625 ATWOOD DRIVE PENSACOLA, FLORIDA 32514 605 WEST GARDEN STREET PENSACOLA, FLORIDA 32501

ELECTRIC: FLORIDA POWER & LIGHT GULF POWER, 1 ENERGY PLACE PENSACOLA, FLORIDA 32520 (800) 778-9140

TRAFFIC DEPARTMENT: 3363 WEST PARK PLACE PENSACOLA, FLORIDA 32505 (850) 595-3404

## SITE DATA TABLE

BUILDING TYPE: CANOPY TYPE: CANOPY CONFIGURATION: # OF MPD'S: TYPE MPD'S: # OF PARKING PLACES: # OF HCP: # OF TRUCK/OVERSIZED PARKING: SQ. FT. OF ASPHALT (TO BE SEAL COATED): SQ. FT. OF LAWN AREA (TO BE MOWED): SQ. FT. OF MULCH AREA:

U59 FB-R SLOPED STACKED (4) 3+1+1 & (4) 4+1 58,165 15,780 1,113

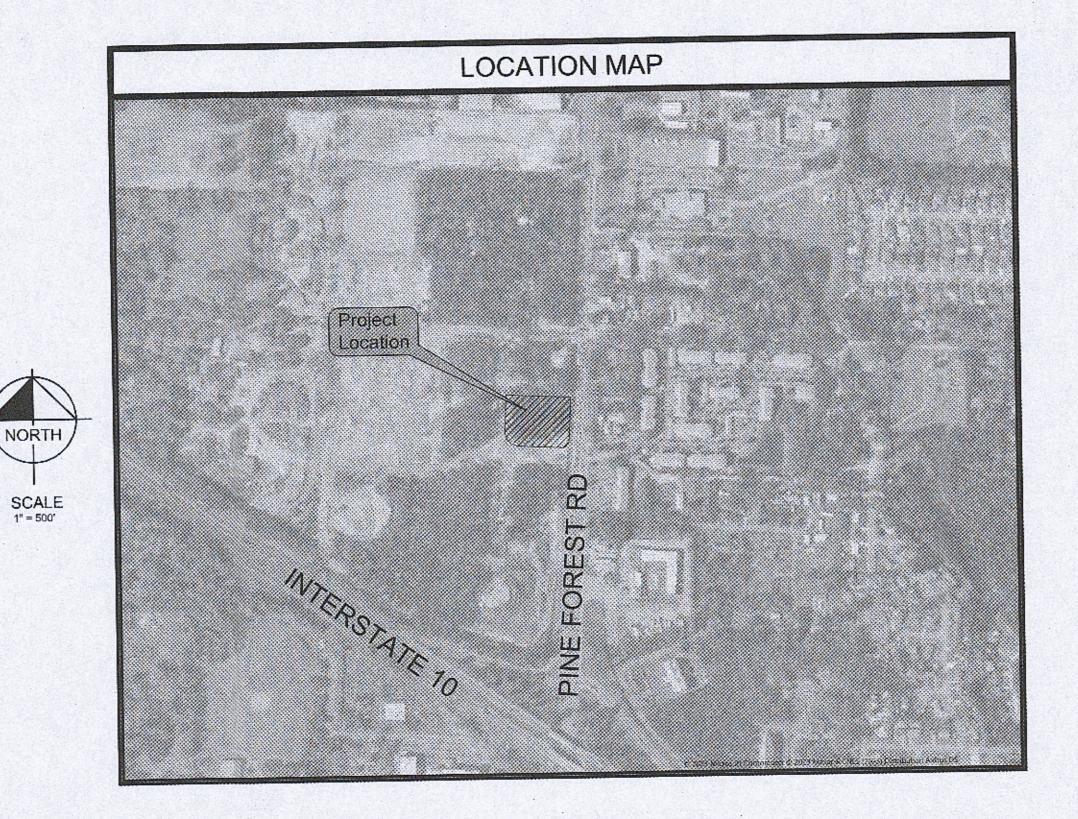
## CONSTRUCTION PLANS FOR

# WAWA RANSLEY STATION 8840 BOESCH LANE

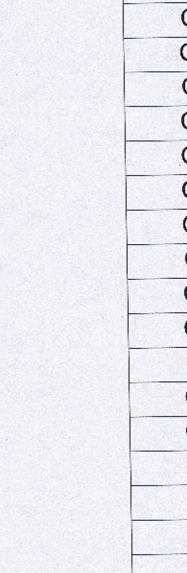
# ESCAMBIA COUNTY, FLORIDA 32534

SECTION 11, TOWNSHIP 1 SOUTH, RANGE 31 WEST

## NOVEMBER 2023



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- 1. ALL CONSTRUCTION COVERED BY THESE PLANS SHALL COMPLY WITH THE MATERIAL REQUIREMENTS AND QUALITY CONTROL STANDARDS CONTAINED IN THE ESCAMBIA COUNTY LAND DEVELOPMENT CODE. WATER, SEWER AND RECLAIMED WATER SHALL: COMPLY WITH EMERALD COAST UTILITY AUTHORITY (ECUA) CURRENT DESIGN
- 2. ELEVATIONS BASED ON SIRYFY PROVIDED BY MERRILL PARKER SHAW, INC., DATED JUNE 6, 2023.
- う。 THE CONTRACTOR IS RESPONSIBLE FOR INSPECTING THE SITE PRIOR TO CONSTRUCTION.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL/DISPOSAL OF ANY UNSUITABLE MATERIAL FROM THEIR OPERATION, FURNISHING AND COMPACTING SUITABLE REPLACEMENT BACKFILL MATERIAL IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
- 5. THE CONTRACTOR SHALL ME MESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS REQUIRED FOR THE
- 6. THE LOCATION OF ALL UTBLITTES SHOWN ON THE DRAWINGS ARE FROM INFORMATION PROVIDED BY FIELD
- 7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM, IN THE FIELD, THE LOCATIONS AND ELEVATIONS SHOWN PRIOR TO THE CEMBEL NEEMENT OF CONSTRUCTION.
- 8. THE CONTRACTOR SHALL COORTINATE ALL CONSTRUCTION AND BUILDING PLACEMENT WITH ALL OTHER UTILITIES
- 9. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRODUCE, SUBMIT AND OBTAIN APPROVAL OF REPRODUCIBLE "AS-BUILT" BRAWINGS FROM JURISDICTIONAL AGENCIES AS MAY BE REQUIRED.
- 10. "AS-BUILT" INFORMATION SHALL BE MAINTAINED BY THE CONTRACTOR. CONTRACTOR SHALL EMPLOY THE SERVICES OF A SURVEYOR REGISTERED IN THE STATE OF FLORIDA TO DETERMINE ALL "AS-BUILT" INFORMATION. UPON COMPLETION OF THE WORK THE CONTRACTOR SHALL PROVIDE UP TO SIX COPIES AND THE CAD FILE OF AS-BUILT DRAWINGS TO THE FRIGINEER. ALL UNDERGROUND FITTINGS MUST BE REFERENCED TO AT LEAST TWO VISIBLE REFERENCE POINTS ON THE AS-BUILT DRAWINGS. AS-BUILT PLANS ARE REQUIRED PRIOR TO ISSUANCE OF THE CERTIFICATE OF AGAINTANCY.
- 11. CONTRACTOR SHALL PROVIDE AND MAINTAIN ADEQUATE EROSION AND TURBIDITY CONTROLS DURING AND FOLLOWING CONSTRUCTION HINTE. ALL DISTURBED AREAS HAVE BEEN STABILIZED TO AVOID ADVERSE ENVIRONMENTAL IMPACTS IN OFF-SITE PROPERTY AND DRAINAGE SYSTEMS.
- 12. ALL SEDIMENT AND EROSISM CHINTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH CONSTRUCTION POLLUTION PREVENTION PLAN INCLUDED HEREIN.
- 13. THE CONTRACTOR SHALL PROVICE A TEMPORARY WATER SERVICE OR WATER TRUCK FOR WASH-DOWN OF VEHICLES LEAVING THE PROJECT SITE IF NECESSARY.
- 14. ALL UNDERCROUND UTILITIES TO BE INSTALLED SHALL BE IN ACCORDANCE WITH THE ECUA SPECIFICATIONS AND THE APPROVED CONSTRUCTION DOCUMENTS.
- 15. THE CONTRACTOR(S) SHALL NUMBEY ALL APPLICABLE UTILITIES COMPANIES, THE ENGINEER OF RECORD, AND THE PROPERTY OWNER 48 HOURS PHIOR TO INITIATING ANY EXCAVATION ACTIVITIES, OR AS SPECIFIED BY THE UTILITIES COMPANIES AND THE PERMITS OBTAINED FOR THE WORK.
- 16. THE ENGINEER OF RESOND SHALL BE GIVEN FORTY EIGHT HOURS (48-HR) NOTICE OF ALL MEETINGS AND OR TESTING MEASURES RELATED TO SAID PROJECT.
- 17. CONSTRUCTION WARNING MEANS ARE TO BE MOUNTED AND ERECTED BEFORE CONSTRUCTION CAN COMMENCE. THESE AND ALL TRAFFIC CONTROL DEVICES SHALL FOLLOW THE STANDARDS SET FORTH BY THE MANUAL OF UNIFORM TRAFFIC CONTROL BEVICES (MUTCD) AS WELL AS FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT)
- 18. THE CONTRACTOR IS RESPONSIBLE FOR CLEARLY IDENTIFYING THE AREA OF CONSTRUCTION AND SAFELY ROUTING ALL VEHICULAR AND PETIESTRIAN TRAFFIC AROUND THE CONSTRUCTION AREA. THE CONSTRUCTION AREA SHALL BE CLEARLY MARKED AT ALL IIMES.
- 19. ALL AREAS DISTURBED BY QUANTRUCTION SHALL BE SODDED ACCORDING TO LOCAL REGULATIONS.
- 20. THE CONTRACTOR(S) SHALL LEWATE, VERIFY, AND IDENTIFY ALL EXISTING UNDERGROUND UTILITIES SHOWN OR NOT SHOWN ON THE PLANT PRIOR TO ANY EXCAVATING ACTIVITIES.
- 21. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO EXCAVATION AND TAKE ALL MEASURES NECESSARY TO PROTECT UTILITIES DURING CONSTRUCTION. SHOULD ANY UTILITY LINE OR COMPONENT BECOME DAMAGED OR REQUIRE DELOCATION THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE RESPONSIBLE UTILITY COMPANY, THE ENGINEER OF RECORD, AND THE COUNTY.
- 22. THE CONTRACTOR SHALL PRIBLET EXISTING UTILITIES, SURVEY MARKERS, MONUMENTS, ETC. DURING CONSTRUCTION. THE CONTRACTOR SHALL RESTORE/REPLACE ANY DAMAGE DONE BY CONSTRUCTION ACTIVITIES.
- 23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES CAUSED BY HIS OPERATIONS.
- 24. THERE SHALL BE A MINIMUM TUREE (3) DAYS NOTICE GIVEN FOR SCHEDULING THE FINAL INSPECTION.
- 26. ALL LAND SHALL REMAIN VĒĢĒTATED & IN ITS NATURAL STATE UNTIL SUCH TIME AS DRO SITE PLANS AND ADDITIONAL PERMITTING AMTRUVAL ALLOW FOR TREE REMOVAL AND LAND DISTURBING ACTIVITIES, PER CODE. ALL TREE REMOVAL, LAND CLEARING, PLACEMENT OF FILL MATERIALS, SWALES, TRENCHING, BERMING, SITE GRADING, CUTTING, OR OTHER "LAMD DISJURBING ACTIVITIES", ETC. SHALL BE PERMITTED OTHERWISE APPROVED BY THE COUNTY PRIOR TO INITIATION,

#### DEMOLITION NOTES:

- CODES ALL CODES REGULATING DEMOLITION WORK SHALL BE COMPLIED BY THE CONTRACTOR. THE CONTRACTOR SHALL PUT UP AND MAINTAIN SLIGH BLARRIERS AND WARNING LIGHTS, AS MAY BE NECESSARY OR REQUIRED BY CODE, TO PROTECT AND PREVENT UNAUTHORIZED PERSONNEL FROM ENTERING THE DEMOLITION WORK AREA. ALL DEMOLITION OPERATIONS MILALI COMPLY WITH THE REQUIREMENTS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) INSURAN AS THEY APPLY TO DEMOLITION WORK TO BE PERFORMED UNDER THIS CONTRACT.
- PROTECTION OF BUILDINGS & FOUIPMENT TEMPORARY PROTECTIVE (JEWILE), AS REQUIRED SHALL BE INSTALLED ADJACENT TO THE DEMOLITION WORK FOR PROTECTION PERSONNEL EXISTING ADJACENT BUILDINGS, STRUCTURES AND EQUIPMENT AGAINST DUST, FALLING OR FLYING DEBRIS. ANY BAMAGE TO EXISTING STRUCTURES, FACILITIES AND/OR EQUIPMENT RESULTING FROM DEMOLITION WORK SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
- 3. DISPOSAL OF EXISTING EQUIPMENT & DEBRIS
  ALL DEBRIS AND EXISTING MATERIALS AND EQUIPMENT SHALL BE HAULED AWAY AND DISPOSED OF BY THE CONTRACTOR. THE CONTRACTOR SHALL MAKE HIS OWN ARRANGEMENTS FOR OBTAINING DISPOSAL AREAS. THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO PREVENT SPILLAGE OF MATERIALS BEING HAULED IN PUBLIC STREETS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO IMMEDIATELY CLEAN UP ANY SPILLAGE WHICH MAY ACCIDENTALLY OCCUR.
- THE CONTRACTOR SHALL MAINTAIN AN ORDER OF NEATNESS AND GOOD HOUSEKEEPING. TOOLS, SCAFFOLDING AND OTHER DEMOLITION COLIFMENT MUST AT ALL TIMES BE KEPT IN A NEAT AND ORDERLY ARRANGEMENT. AT THE CONCLUSION OF THE DEMOLITION OPERATIONS, THE ENTIRE WORK AREA SHALL BE LEFT IN A CLEAN CONDITION AS REQUIRED FOR SUBSEQUENT NEW WORK.

#### SIGNAGE AND PAVEMENT MARKING NOTES:

- 1. PROJECT SIGNS SHALL MEET ALL APPLICABLE REQUIREMENTS BASED ON LOCAL SIGN ORDINANCE.
- 2. CONTRACTOR IS RESPONSIBLE FOR ALL SIGN PERMITTING.
- 3. ALL FINAL PAVEMENT MARKINGS WITHIN THE STATE AND PUBLIC RIGHT-OF-WAYS SHALL BE THERMOPLASTIC.
- 4. ALL STOP SIGNS (R1-1) SHOULD BE 30" AND FABRICATED USING 3M DIAMOND GRADE VIP REFLECTIVE SHEETING.
- 5. STOP AND STREET NAME SIGNS SHALL BE MOUNTED ONTO THE SAME POLE.
- 6. STOP LINES SHALL BE TWENTY FOUR INCHES (24") WIDE AND LANE WIDTH.
- 7. ALL SIGNS SHALL BE SIZED IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)

#### PAYING AND DRAINAGE NOTES:

- ALL GRADING, PLACEMENT OF FILL, AND COMPACTION SHALL BE IN ACCORDANCE WITH ESCAMBIA COUNTY. STANDARD SPECIFICATIONS AND THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION AND ALL APPLICABLE ADA
- 2. THE CONTRACTOR SHALL CONSTRUCT ALL DRAINAGE STRUCTURES TO THE DESIGN ELEVATIONS SHOWN AND IN COMPLIANCE WITH TYPICAL CONSTRUCTION DETAILS.
- 3. CONTRACTOR MUST SALVAGE EXISTING TOP SOIL WITHIN PROJECT SITE OR REPLACE AT HIS OWN EXPENSE.
- 4. ANY DEFICIENCY IN THE QUANTITY OF MATERIAL FOR BACKFILLING THE TRENCHES, OR FOR FILLING DEPRESSIONS CAUSED BY SETTLEMENT, SHALL BE SUPPLIED BY THE CONTRACTOR AT NO COST TO THE OWNER. THIS ALSO APPLIES TO BASE COURSE UNDER PAVED STREETS.
- 5. ALL PIPE LENGTHS SHOWN HEREIN ARE APPROXIMATE LENGTHS FROM CENTER TO CENTER OF THE RELATED
- 6. ALL PIPE LENGTHS ARE SCALED AND MAY REQUIRE SLIGHT FIELD ADJUSTMENTS TO FIT CONDITIONS. ALL PIPE CROSSINGS SHALL BE COMPACTED TO 95% MAX, DENSITY AT 1' LIFTS.
- 7. THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF THE PAVING AND DRAINAGE FACILITIES WITH ALL
- 8. ALL PIPE JOINTS SHALL BE PROPERLY FITTED AND SEALED PER PRODUCT MANUFACTURERS SPECIFICATIONS.
- 9. THE CONTRACTOR SHALL COORDINATE ALL NOTIFICATIONS AND UTILITY LOCATION EFFORTS WITH THE UTILITY OWNERS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

MATERIAL SPECIFICATIONS TO THE CONSTRUCTION MANAGER AND ENGINEER OF RECORD FOR REVIEW PRIOR TO

10, THE CONTRACTOR SHALL SUBMIT SEVEN (7) SETS OF SHOP DRAWINGS OF ALL STRUCTURES, EQUIPMENT

- THE PURCHASE AND/OR INSTALLATION OF ANY STRUCTURES, EQUIPMENT, AND/OR MATERIAL. 11. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PERMITTED CONSTRUCTION DOCUMENTS. ANY DEVIATION FROM THE APPROVED CONSTRUCTION DOCUMENTS SHALL BE THE SOLE RESPONSIBILITY OF THE ORGANIZATION AND/OR ENTITY RESPONSIBLE FOR THE INSTALLATION TO UPDATE/REPLACE ANY DEFICIENT MATERIAL/EQUIPMENT NECESSARY TO BRING THE FINAL PRODUCT TO THE STANDARDS OF THE PERMITTED
- 12. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF SEDIMENT AND EROSION CONTROL MEASURES DURING CONSTRUCTION. REFER TO THE STORMWATER POLLUTION PREVENTION PLAN.
- 13. COMPACTION DENSITIES FOR ALL ROADWAY CROSSINGS ARE TO BE TAKEN IN ONE-FOOT (1") LIFTS.
- 14. LIMEROCK BERING RATIOS FOR SUBGRADE AT FORTY (40) AND LIMEROCK OR ALTERNATIVE BASE COURSE AT ONE HUNDRED (100). THERE WILL BE NO UNDER TOLERANCE.
- 15. ALL MATERIAL USED FOR BACKFILL SHALL BE A3 FREE DRAINING SAND.
- 16. THERE ARE TO BE NO OPEN TRENCHES AT THE DAY'S END.
- 17. THE CONTRACTOR SHALL ADHERE TO ALL NOTES PROVIDED IN THESE CONSTRUCTION DRAWINGS.
- 18. ALL CONSTRUCTION LINES & GRADES SHALL BE ESTABLISHED AND MAINTAINED BY THE CONTRACTOR.
- 19. CONTRACTOR WILL CLEAR, GRUB AND DISPOSE OF ALL DEBRIS AND SURFACE ORGANICS IN ALL EASEMENTS, ROAD RIGHT-OF-WAYS AND DETENTION AREAS. DISPOSAL SHALL BE INCLUDED IN THE CONTRACT.
- 20. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION OF DOWNSTREAM TURBIDITY/ SILTATION THROUGH THE USE OF HAY BALES, SCREENS, SILTATION BASINS, AND/OR ANY OTHER SUITABLE MEANS REQUIRED TO MEET FLORIDA STREAM STANDARDS. SEED AND MULCH ALL DISTURBED AREAS, SOD AS REQUIRED TO CONTROL

EROSION THROUGH FINAL INSPECTION AND TO PRODUCE A UNIFORM STAND OF GRASS THROUGHOUT.

- 21. CONTRACTOR SHALL BE RESPONSIBLE FOR BRICKING UP CURB INLETS TO FINISHED GRADE AND FURNISHING AND
- 22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING CURB TRANSITIONS TO FINISH GRADE
- 23. UNDERDRAINS SHALL BE INSTALLED, BY THE CONTRACTOR, IN ALL CASES WHERE THE GROUNDWATER TABLE IS CLOSER THAN 24 INCHES BELOW THE PROPOSED CENTERLINE GRADE OF ANY ROAD. CONTACT ENGINEER IF ISSUE
- 24. ALL DISTURBED AREAS SHALL RECEIVE GRASS SEED, FERTILIZER, AND MULCH. AREAS SHALL HAVE BEEN FILLED AND GRADED AS NECESSARY TO PROVIDE PROPER DRAINAGE. SLOPES STEEPER THAN 4:1 SHALL BE PINNED OR
- 25. FILTER WRAP SHALL BE USED ON ALL DRAINAGE JOINTS AS REQUIRED BY FOOT SPECIFICATIONS.
- 26. A 2' STRIP OF SOD IS REQUIRED AROUND ALL DITCH BOTTOM INLETS.
- 27. ALL POND SIDE SLOPES SHALL BE STABILIZED WITH ESTABLISHED GRASS AT TIME OF FINAL INSPECTION.
- 28. HANDICAP RAMPS SHALL BE INSTALLED WHEREVER THE SIDEWALK MEETS THE CURB, AND SHALL COMPLY WITH ALL ADA REQUIREMENTS.
- 1. IF CLAYEY SOILS ARE ENCOUNTERED DURING CONSTRUCTION THE CONTRACTOR SHALL COORDINATE WITH THE PROJECT ENGINEER FOR RECOMMENDATIONS ON HOW TO PROCEED WITH THE PLACEMENT AND USE OF THESE
- 2. SHOULD ANY SINKHOLE ACTIVITY BE OBSERVED DURING CONSTRUCTION THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER IMMEDIATELY FOR GUIDANCE ON REPAIRING THE SINKHOLE.

#### STORMWATER NOTES:

- 1. THE PROJECT ENGINEER (ENGINEER OF RECORD) SHALL PROVIDE TO ESCAMBIA COUNTY "AS-BUILT" RECORD DRAWINGS FOR VERIFICATION AND APPROVAL BY ESCAMBIA COUNTY ONE WEEK PRIOR TO REQUESTING A FINAL INSPECTION AND CERTIFICATE OF OCCUPANCY, OR PROVIDE "AS-BUILT" CERTIFICATION THAT THE PROJECT CONSTRUCTION ADHERES TO THE PERMITTED PLANS AND SPECIFICATIONS, THE "AS-BUILT" CERTIFICATION OR THE "AS-BUILT" RECORD DRAWINGS MUST BE SIGNED, SEALED AND DATED BY A REGISTERED FLORIDA PROFESSIONAL
- 2. ALL ASPECTS OF THE STORMWATER/DRAINAGE COMPONENTS AND/OR TRANSPORTATION COMPONENTS SHALL BE COMPLETED PRIOR TO ISSUANCE OF A FINAL CERTIFICATE OF OCCUPANCY.
- 3. NO DEVIATIONS OR REVISIONS FROM THESE PLANS BY THE CONTRACTOR SHALL BE ALLOWED WITHOUT PRIOR APPROVAL FROM BOTH THE DESIGN ENGINEER AND THE ESCAMBIA COUNTY. ANY DEMATIONS MAY RESULT IN DELAYS IN OBTAINING A CERTIFICATE OF OCCUPANCY.
- 4. THE CONTRACTOR SHALL INSTALL PRIOR TO THE START OF CONSTRUCTION AND MAINTAIN DURING CONSTRUCTION ALL SEDIMENT CONTROL MEASURES AS REQUIRED TO RETAIN ALL SEDIMENTS ON THE SITE. IMPROPER SEDIMENT CONTROL MEASURES MAY RESULT IN CODE ENFORCEMENT WOLATION.
- 5. RETENTION/DETENTION AREAS SHALL BE SUSTAINABLY COMPLETED PRIOR TO ANY CONSTRUCTION ACTIVITIES THAT MAY INCREASE STORMWATER RUNOFF RATES. THE CONTRACTOR SHALL CONTROL STORMWATER DURING ALL PHASES OF CONSTRUCTION AND TAKE ADEQUATE MEASURES TO PREVENT THE EXCAVATED POND FROM BUNDING DUE TO SEDIMENTS. 6. ALL DISTURBED AREAS WHICH ARE NOT PAVED SHALL BE STABILIZED WITH SEEDING, FERTILIZER AND MULCH,
- HYDROSEED AND/OR SOD.
- 7. ALL NEW BUILDING ROOF DRAINS, DOWN SPOUTS, OR CUTTERS SHALL BE ROUTED TO CARRY ALL STORMWATER TO RETENTION/DETENTION AREAS.
- 8. DEVELOPER/CONTRACTOR SHALL RESHAPE PER PLAN SPECIFICATIONS, CLEAN OUT ACCUMULATED SILT, AND STABILIZE RETENTION / DETENTION POND(S) AT THE END OF CONSTRUCTION WHEN ALL DISTURBED AREAS HAVE BEEN STABILIZED AND PRIOR TO REQUEST FOR INSPECTION.
- 9. CONTRACTOR SHALL MAINTAIN RECORD DRAWINGS DURING CONSTRUCTION WHICH SHOW "AS-BUILT" CONDITIONS OF ALL WORK INCLUDING PIPING, DRAINAGE STRUCTURES, TOPO OF POND(S), OUTLET STRUCTURES, DIMENSIONS, ELEVATIONS, GRADING ETC. RECORD DRAWINGS SHALL BE PROVIDED TO THE ENGINEER OF RECORD PRIOR TO REQUESTING FINAL INSPECTION.
- 10. THE OWNER OR HIS AGENT SHALL ARRANGE/SCHEDULE WITH THE COUNTY A FINAL INSPECTION OF THE DEVELOPMENT UPON COMPLETION AND ANY INTERMEDIATE INSPECTIONS AT (850)595-3472. AS-BUILT CERTIFICATION IS REQUIRED PRIOR TO REQUEST FOR FINAL INSPECTION/APPROVAL.
- 11. PRIOR TO CONSTRUCTION A SEPARATE BUILDING INSPECTION DEPARTMENT PERMIT(S) SHALL BE OBTAINED FOR ALL RETAINING WALL(S) HIGHER THAN 2 FEET.
- NOTIFY SUNSHINE UTILITIES 48 HOURS IN ADVANCE PRIOR TO DIGGING WITHIN R/W; 1-800-432-4770. 13. ANY DAMAGE TO EXISTING ROADS DURING CONSTRUCTION WILL BE REPAIRED BY THE DEVELOPER PRIOR TO FINAL
- "AS-BUILT" SIGN OFF FROM THE COUNTY. 14. THE CONTRACTOR SHALL NOTIFY FDOT 49 HOURS IN ADVANCE PRIOR TO INITIATING ANY WORK IN THE STATE RIGHTS-OF-WAY."

#### WATER/SEWER SEPARATION REQUIREMENTS (ECUA/FDEP):

EXCEPTIONS/MITIGATION WHERE IT IS NOT TECHNICALLY FEASIBLE OR ECONOMICALLY SENSIBLE TO COMPLY WITH THE REQUIREMENTS IN ITEMS (1) THROUGH (4) ABOVE, THE CONTRACTOR SHALL STOP WORK AND IMMEDIATELY NOTIFY THE ENGINEER OF RECORD, WHO WILL DETERMINE THE APPROPRIATE SOLUTION, IF A SUBSTANTIAL DEVIATION FROM THE PERMITTED DESIGN IS REQUIRED, A REQUEST FOR PERMIT REVISION WILL BE SUBMITTED TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) FOR APPROVAL PRIOR TO CONSTRUCTION.

#### SANITARY SEWER SYSTEM NOTES:

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ECUA STANDARD SPECIFICATIONS OR WATER AND SEWER 3. CONSTRUCTION DESIGN MANUAL, WHERE THESE NOTES CONFLICT WITH ECUA ENGINEERING MANUAL, THE ECUA
- THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES AND CONNECTION POINTS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES WITH THESE PLANS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY FOR RESOLUTION.
- 3. ALL EQUIPMENT AND MATERIALS SHALL COMPLY WITH ECUA ENGINEERING MANUAL. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL EQUIPMENT AND MATERIAL FOR APPROVAL BY THE ENGINEER AND ECUA-UTILITIES DEPARTMENT PRIOR TO THE PURCHASE OR INSTALLATION OF ANY EQUIPMENT OR MATERIAL.
- 4. GRAWITY SANITARY SEWER LINE SHALL CONFORM TO ASTM D-3034, SDR-35, COLOR GREEN AND CLEARLY MARKED AND CODED.
- 5. CONCRETE THRUST BLOCKS SHALL BE USED ON ALL PVC PRESSURE PIPING 6. CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING OF ALL SANITARY PIPE AND APPURTENANCES IN
- ACCORDANCE WITH ECUA SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION. 7. CONTRACTOR SHALL INSURE THAT THE MINIMUM HORIZONTAL AND VERTICAL CLEARANCE IS MAINTAINED TO ALL OTHER WET UTILITIES IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP)

#### POTABLE WATER SYSTEM NOTES:

REQUIREMENTS.

- 1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH EMERALD COAST UTILITY AUTHORITY (ECUA) STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION, WHERE THESE NOTES CONFLICT WITH ECUA ENGINEERING MANUAL, THE ECUA MANUAL SHALL TAKE PRECEDENCE, CONTRACTOR IS RESPONSIBLE FOR THE PROPER NOTIFICATION OF INSPECTING AUTHORITIES BEFORE AND DURING CONSTRUCTION.
- 2. ALL WATER AND SEWER CONSTRUCTION SHALL BE ACCOMPLISHED BY AN UNDERGROUND UTILITY CONTRACTOR WITH A CLASS 5 LICENSE UNDER THE PROVISIONS OF CHAPTER 489, FLORIDA STATUTES.
- 3. ALL MATERIALS AND CONSTRUCTION PROCEDURES AND TECHNIQUES SHALL BE IN ACCORDANCE WITH ECUA STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION.

- 1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL EQUIPMENT AND MATERIAL FOR APPROVAL BY THE ENGINEER AND ECUA UTILITIES DEPARTMENT PRIOR TO THE PURCHASE OR INSTALLATION OF ANY EQUIPMENT OR
- EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN SHOWN, BASED ON THE BEST INFORMATION AVAILABLE, WITHOUT EXPLORATORY EXCAVATIONS. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ANY AND ALL DISCREPANCIES WITH THE PLANS SHALL BE IMMEDIATELY
- AND NOTIFY THE ENGINEER IF THE LOCATION DIFFERS FROM THAT SHOWN ON THE PLANS BEFORE CONTINUING
- UNSUITABLE SOIL MATERIALS UNDER WATER AND SEWER MAINS SHALL BE REMOVED AND REPLACED WITH SELECT
- 6. ALL ROCK AND UNSUITABLE SIZED STONES (AS DESCRIBED IN THE APPLICABLE AWWA AND ECUA STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION AND/OR THE PIPE MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES) FOUND IN THE TRENCHES FOR NEW AND RELOCATED WATER MAIN PIPE SHALL BE REMOVED TO A DEPTH OF AT LEAST SIX (6) INCHES BELOW THE BOTTOM OF THE PIPE. AN APPROVED
- COMPACTION OF PIPE TRENCHES SHALL BE IN ACCORDANCE WITH ECUA STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION. COMPACTION SHALL BE 95% OF AASHTO T-180 IN NON-TRAFFIC AREAS AND 98%
- 9. ALL PVC PRESSURE PIPING SHALL USE CONCRETE THRUST BLOCKING AT ALL BENDS AND TERMINATIONS. THRUST BLOCK SIZING SHALL BE IN ACCORDANCE WITH EQUA STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION. PVC WATER MAINS SHALL HAVE TWO LOCATING WIRES INSTALLED (ON THE TOP AND BOTTOM)
- 10. ALL WATER MAIN FITTINGS SHALL BE DIP FOR PVC AND DIP WATER MAINS 3" AND ABOVE AND USED AT LOCATIONS INDICATED ON THE PLANS, UNLESS OTHERWISE APPROVED BY THE ENGINEER. PIPE DEFLECTIONS AT
- 11. ALL UNDERGROUND VALVES SHALL BE INSTALLED WITH AN ADJUSTABLE CAST IRON VALVE BOX WITH THE TOP SET TO FINAL GRADE IN ACCORDANCE WITH EQUA STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION. VALVE BOXES IN TRAFFIC AREAS SHALL BE LOCKABLE OR NON-POP LIDS IN ACCORDANCE WITH STANDARD DETAIL 478-4.1A OF EQUA STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION.
- 12. ALL HYDRANTS, GATE VALVES AND TAPPING GATE VALVES SHALL HAVE STAINLESS STEEL STEMS.
- 14. FIRE HYDRANTS ARE TO BE INSTALLED WITH THE STEAMER CONNECTION FACING THE ROADWAY.
- FIRE DEPARTMENT.
- PRESSURE OF AT LEAST 150 PSI FOR A MINIMUM DURATION OF 2 HOURS. ALLOWABLE LEAKAGE SHALL BE WITHIN THE PARAMETERS OF ECUA STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION, SECTION
- 19. CONTRACTOR'S SURVEYOR SHALL PROVIDE AS-BUILT DRAWINGS, INCLUDING ALL UNDERGROUND UTILITIES, IN CAD FORMAT TO THE ENGINEER USING THE DRAFTING STANDARDS REQUIRED BY ECUA STANDARD SPECIFICATIONS FOR
- 22. ALL WATER TAPS SHALL BE SCHEDULED AT LEAST 48 HOURS IN ADVANCE WITH ECUA. 23. ALL ON-SITE WATER AND SEWER CONSTRUCTION REQUIRES A PLUMBING PERMIT WITH A SCHEDULED INSPECTION BY ECUA, UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR ARRANGING ALL
- 24. CONNECTION TO EXISTING POTABLE WATER SYSTEMS SHALL NOT BE ALLOWED UNTIL ALL PROPOSED WATER LINES HAVE BEEN PRESSURE TESTED, DISINFECTED, CLEARED FOR SERVICE AND ACCEPTED FOR MAINTENANCE BY ECUA, UTILITIES DEPARTMENT AND FDEP.
- 25. SITE CONTRACTOR IS RESPONSIBLE FOR ALL BACTERIOLOGICAL TESTING AND CHLORINATION.

POTABLE WATER SYSTEM NOTES CONTINUED:

- BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION. THE VERTICAL LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLAN SHEETS HAVE BEEN ASSUMED. THE CONTRACTOR SHALL EXERCISE CAUTION DURING EXCAVATION NEAR EXISTING UTILITIES SHOWN ON THE PLANS
- SHOULD ANY CONDITIONS MARY FROM THOSE SHOWN ON THESE PLANS, THE CONTRACTOR SHALL IMMEDIATELY
- BACKFILL IN ACCORDANCE WITH ECUA STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION.
- BACKFILL MATERIAL SHALL BE PROVIDED AND SHAPED TO PROVIDE A CONTINUOUS AND UNIFORM BEDDING. THE BEDDING MATERIAL SHALL BE COMPACTED IN ACCORDANCE WITH ECUA STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION, BASED ON ITS LOCATION.
- WATER MAINS SHALL HAVE A MINIMUM OF 36" COVER FROM FINISHED GRADE.

NOTIFY THE ENGINEER FOR RESOLUTION PRIOR TO CONTINUING CONSTRUCTION.

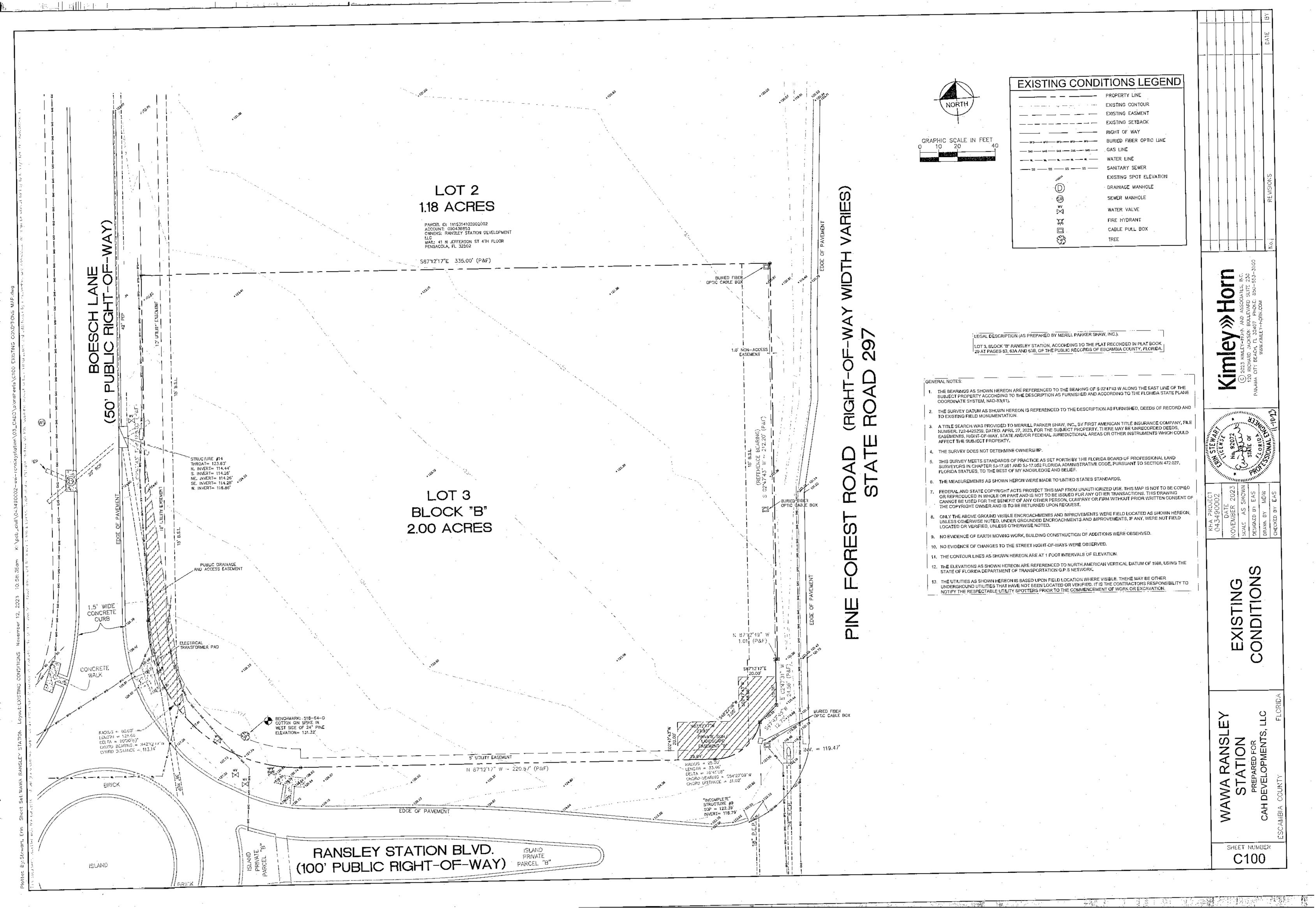
- JOINTS SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDED DEFLECTION.
- VALVES DEEPER THAN 5' SHALL HAVE VALVE NUT EXTENSIONS WHICH SHALL BE WELDED AS ONE PIECE.
- 13. FIRE HYDRANTS ARE TO BE FACTORY PAINTED CHROME YELLOW (SAFETY YELLOW) PER NFPA-291.
- 15. SITE CONTRACTOR SHALL PROVIDE ALL CHAINS, LOCKS AND KEYS FOR DDCVA'S AS REQUIRED BY THE LOCAL
- 16. ALL NEW AND RELOCATED WATER MAINS SHALL BE PRESSURE AND LEAK TESTED IN ACCORDANCE WITH AWWA STANDARD C600, LATEST EDITION. PRESSURE TESTING SHALL BE IN ACCORDANCE WITH ECUA STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION, SECTION 481.5.2. PRESSURE TESTING SHALL BE AT A
- 17. ALL NEW AND RELOCATED WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C651
- 18, ALL PIPE AND PIPE FITTINGS FOR NEW AND RELOCATED WATER SERVICES SHALL COMPLY WITH THE LATEST FDEP AND AWWA STANDARDS FOR LEAD CONTENT. ALL SOLDERS AND FLUX FOR NEW AND RELOCATED WATER SERVICES SHALL COMPLY WITH THE LATEST FDEP AND AWWA STANDARDS FOR LEAD CONTENT.
- 20. SITE CONTRACTOR SHALL SUPPLY AND INSTALL ALL BACKFLOWS, METERS AND METER BOXES NOT PROVIDED BY
- 21. CONTRACTOR SHALL ARRANGE A PRE-CONSTRUCTION CONFERENCE WITH EQUA AT LEAST 48 HOURS PRIOR TO
- THE COMMENCEMENT OF CONSTRUCTION.

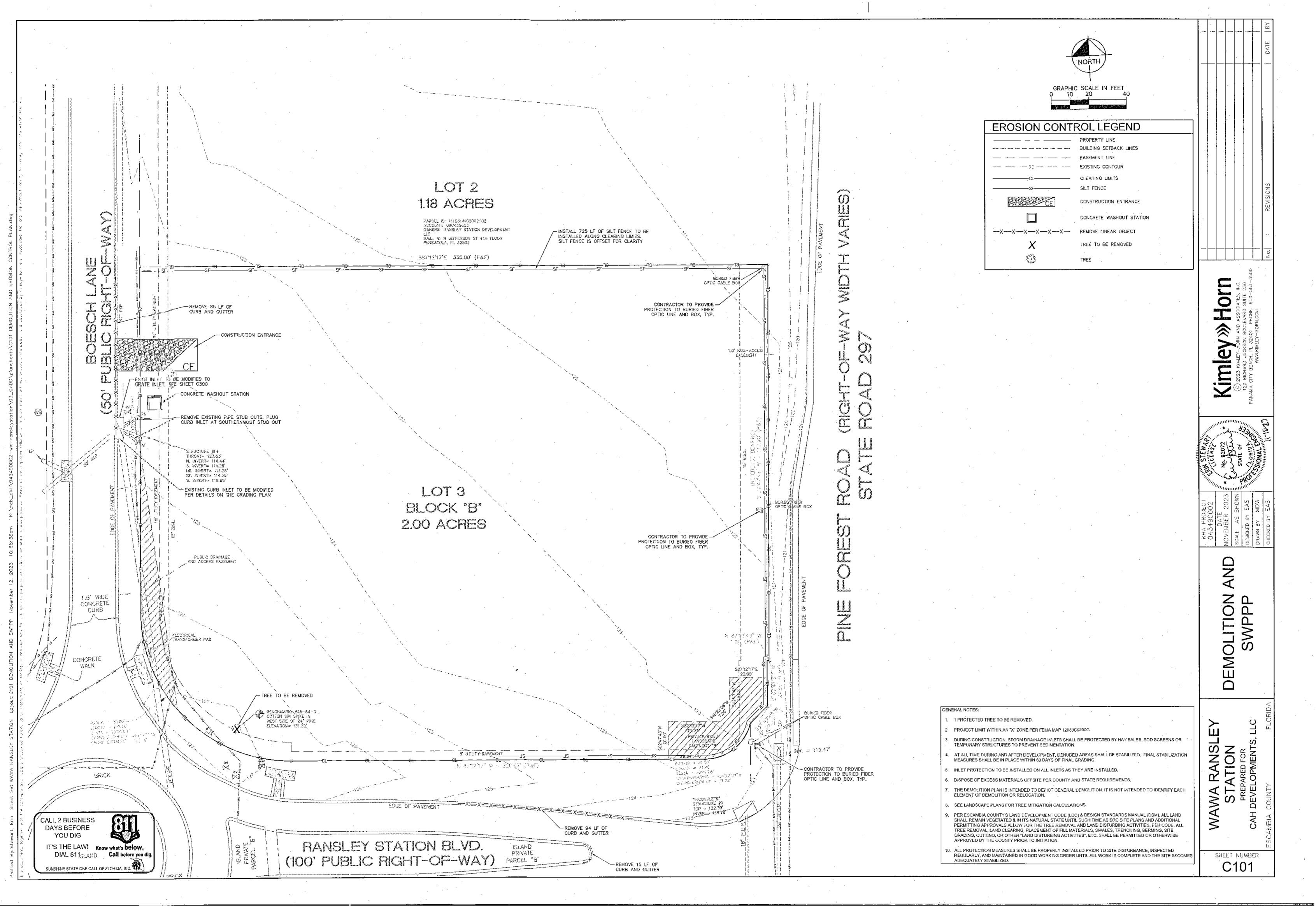


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#### CLEARING AND SHE PREPARATION NOTES:

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION OF THE LEOSION CONTROL DEVICES, AS SHOWN ON THE CONTROL PLANS, PHIOR TO ANY SITE CLEARING AND/OR DEMOLITION. REFER TO THE "EROSION CONTROL NOTING SECTION CONTAINED HEREIN FOR ADDITIONAL REQUIREMENTS.
- 2. PRIOR TO ANY SITE (LEARING, ALL TIKES SHOWN TO REMAIN, AS INDICATED ON THE CONSTRUCTION PLANS, SHALL BE PROJECTED IN ACCORDANCE WITH LOCAL TIRES ORDINANCES AND DETAILS CONTAINED IN THESE PLANS. If SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THESE TREES IN GOOD CONDITION. NO TREE(S) SHOWN TO REMAIN SHALL BE REMOVED WITHOUT WRITTEN APPROVAL TROM THE OWNER AND THE LOCAL AGENCY HAVING JURISDICTION OVER THESE ACTIVITIES.
- 3. THE CONTRACTOR SHALL CLEAR AND GRUB ONLY THOSE PORTIONS OF THE SITE NECESSARY FOR CONSTRUCTION. ALL DISTURBED AREAS MUST BE SEEDED, MULCHED, SODDED OR PLANTED WITH OTHER APPROVED LANDSGARE MATERIAL IMMEDIATELY FOLLOWING CONSTRUCTION.
- 4. THE TOP 4" TO Q" OF GROUND REMOVED DURING CLEARING AND GRUBBING ACTIVITIES SHALL BE STOCKPILED, TO BE USED FOR LANDSCAPING PURPOSES, UNLESS OTHERWISE DIRECTED BY THE OWNER. REMAINING EARTHWORK THAT RESULTS FROM CLEARING AND GRUBBING OR SITE EXCAVATION IS TO BE UTILIZED ON-SHE, PROVIDED THE MATHRIAL IS DEEMED SUITABLE BY THE OWNER'S SOILS TESTING COMPANY. EXCESS MATERIAL IS TO EITHER BY SUGGREED ON-SITE, AS DIRECTED BY THE OWNER OR OWNER'S ENGINEER, OR REMOVED FROM THE SITE. THE CONTRACTOR SHALL DE RESPONSIBLE FOR ACQUIRING ANY PERMITS THAT ARE NECESSARY FOR REMOVING ANY EXCESS MATERIAL FROM THE SITE.
- 5. ALL EXISTING DEGING (ABOVE OR BELOW GROUND), CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL SHALL BE DISPOSED OF OH = OFFICE BY THE CONTRACTOR, IN ACCORDANCE WITH APPLICABLE REGULATORY AGENCY REQUIREMENTS.
- 6. THE CONTRACTOR IS TO PREPARE THE SITE IN ACCORDANCE WITH THE SOILS REPORT, COPIES OF WHICH ARE AVAILABLE THROUGH THE OWNER OR SOILS TESTING COMPANY DIRECTLY.
- 7. CONTRACTOR TO BE RESPONSIBLE FOR INSTALLATION OF TEMPORARY CONSTRUCTION FENCE AROUND ENTIRE PERIMETER OF PROPERTY. TYPE OF FENCE TO BE SUBMITTED BY CONTRACTOR TO ENGINEER FOR APPROVAL.
- 8. THE CONTRACTOR SHALL REMOVE ALL VEGETATION, SURPLUS SOIL, DEMOLITION RUBBLE, AND OTHER UNDESIRABLE MATERIALS SUCH MATERIALS SHALL BE PROMPTLY HAULED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH INDVERNING LAWS AND CODES.

#### EROSION AND SILTATION CONTROL

- 1. GENERAL: ASL ENGAGEN AND SILITATION CONTROL METHODS SHALL BE IMPLEMENTED PRIOR TO THE START OF CONSTRUCTION. BURING CONSTRUCTION, CLEAKED AREAS SHALL BE COVERED BY MULCHES SUCH AS STRAW, HAY AND FATER FABRIG. ALL STORM SEWER INLETS IN THE VIGINITY OF THE PROJECT SHALL BE PROTECTED BY SEDIMENT TRAPS OR HAY BALES. THESE SHALL BE MAINTAINED AND MODIFIED DURING THE CONSTRUCTION PROCESS TO MINIMFEL DOWNSTREAM SILITATION. WHEN CONSTRUCTION IS COMPLETED, DETENTION AREAS WILL BE RESHARED, CHEARLD OF SILT, MUD AND DEBRIS, AND REASONDED TO PROPERLY DETAIN THE INTENDED STORM QUANTITIES.
- 2. PROTECTION AND STATISTICATION OF CHI-SITE SOLL STOCKPILES: FILL MATERIAL STOCKPILES SHALL BE PROTECTED AT ALL TIMES BY CHI-SITE DRAINAGE CONTROLS THAT PREVENT EROSION OF THE STOCKPILED MATERIAL, CONTROLS FROM SUCH STOCKPILES MAY BE REQUIRED, DEPENDING UPON THEIR LOCATION AND THE EXPECTION LENGTH OF THE STOCKPILES WILL BE PRESENT. IN NO CASE SHALL ANY UNSTOCKPILED MATERIAL REMAIN MORE THAN THIRTY (30) CALENDAR DAYS AFTER SUBSTANTIAL PROJECT COMPLETION.
- 3. PROTECTION OF EXISTING STORM SEWER SYSTEMS: DURING CONSTRUCTION, ALL STORM SEWER INTELS IN THE MICHITY OF THE PROTECTED BY SEDIMENT TRAPS SUCH AS SECURED HAY BALES, SOD, STONE, ETC., WHICH SHALL BE MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS, AND WHICH MUST BE APPROVED BY THE ENGINEER BEFORE INSTALLATION.
- 4. SEDMENT BASING AND SEDIMENT TRAPPING MEASURES: PERMILIER BERMS, SEDIMENT BARRIERS, VEGETATIVE BUFFERS AND QUILL MEASURES INTENDED TO TRAP SEDIMENT AND/OR PREVENT THE TRANSPORT OF SEDIMENT ONTO AMADENT PROPERTIES, OR INTO EXISTING BODIES OF WATER, MUST BE INSTALLED, CONSTRUCTED OR IN THE CASE OF VEGETATIVE BUFFERS, PROTECTED FROM DISTURBANCE, AS A FIRST STEP IN THE LAND ALIERATION PROCESS. SUCH SYSTEMS SHALL BE FULLY OPERATIVE BEFORE ANY OTHER DISTURBANCE OF THE SEGINS. EARTHEN STRUCTURES INCLUDING BUT NOT LIMITED TO BERMS, EARTH FILTERS, DAMS OR DISTALLATION.
- 5. SWALES, DITCHEN AMD GHANNELS: CHANNELS LEADING FROM THE SITE SHALL BE SODDED WITH ARGENTINE BAHIA WITHAN THATEL (2) DAYS OF EXCAVATION.
- 5. UNDERGROUND UNITIFY SONSTRUCTION: UNDERGROUND UTILITY LINES AND OTHER STRUCTURES SHALL BE CONSTRUCTLY IN ACCORDANCE WITH THE FOLLOWING STANDARDS:

  A. NO MORE THAN 500 LINEAR FEET OF TRENCH SHALL BE CIFEN AT ANY ONE TIME;
- B. EXCAVATED MATERIAL SHALL BE CAST TO THE UPHILL SIDE OF TRENCHES AS LONG AS SAFETY AND SPACE CONSIDERATION ALLOW. TRENCH MATERIAL SHALL NOT BE CAST INTO, (OR ONTO THE SLOPE OF) ANY STREAM, CHANNEL, ROAD, DITCH OR WATERWAY.
- 7. ALL EROSION AND MITIATION CONTROL DEVICES: SHALL BE REGULARLY INSPECTED AND MAINTAINED, (ESPECIALLY AFTER FACE RAINFALL) AND WELL BE CLEANED OUT AND/OR REPAIRED AS REQUIRED.
- 8. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO RAIN SHALL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE STORMWATER SYSTEM.
- 9. APPLICATION RATES AND METHODS FOR USE OF FERRILIZERS AND PESTICIDES AT THE CONSTRUCTION SITE SHALL CONFORM WITH ALL LOCAL AND STATE ORDINANCES. NUTRIENTS SHALL BE APPLIED ONLY AT RATES NECESSARY TO ESTABLISH AND MAINTAIN VEGETATION SUCH THAT DISCHARGES WILL NOT CAUSE OR CONTRIBUTE TO YIM ATRINS OF STATE SURFACE OR GROUNDWATER QUALITY STANDARDS.
- 10. OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED BY CONTRACTOR.

#### SECTION I GENERAL EROSION CONTROL:

- 1. CENERAL EROSION CONTROL BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED TO MINIMAZE SOIL EROSION DAN POTENTIAL POND SECRET FAILURES. WHILE THE VARIOUS TECHNIQUES REQUIRED WILL BE SITE AND PLAN SPECIFIC, THEY THOULD BE EMPLOYED AS SOON AS POSSIBLE DURING CONSTRUCTION ACTIVITIES.
- 2. CLEARED SITE BEVELORMENT AREAS NOT CONTINUALLY USED FOR CONSTRUCTION ACTIVITIES SHALL BE COVERED WITH HAY AND/OR OVERSEED AND SUFFICIENTLY WATERED TO STABLIZE THE TEMPORARY GROUNDCOVER.
- 3. BANKS OF RETENTION/RETENTION PUNOS SHALL NOT BE CONSTRUCTED STEEPER THAN 4H:1V FROM TOP OF BANK TO TWO FEET BELOW THE CONTROL ELEVATION.
- 4. A 1-FOOT WOE STRIP OF SOD SHALL BE PEACED ALONG ALL CURBING AND AROUND ALL INLETS, SOD SHALL BE PLACED GEFORE SILT BARRIERS ARE REMOVED.
   5. THE CONTRACTOR WILL STABILIZE BY SEED AND MULCH, SOD, OR OTHER APPROVED MATERIALS ANY DISTURBED.
- SHALL MAINTAIN SUCH AREAS UNTIL FINAL ACCEPTANCE BY THE OWNER. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER REGARDING THE TYPE OF MATERIAL, LANDSCAPING AND IRRICATION REQUIREMENTS.

AREAS WITHIN ONE WEEK FOLLOWING COMPLETION OF THE UTILITY SYSTEMS AND PAVEMENT AREAS, CONTRACTOR

#### SECTION 3 CONTROL OF WIND EROSION:

- 1. WIND EROSION SHALL BE CONTROLLED BY EMPLOYING THE FOLLOWING METHODS AS NECESSARY AND APPROPRIATE: A. BARE EARTH AREAS SHALL BE WATERED DURING CONSTRUCTION AS NECESSARY TO MINIMIZE THE IRANSPORT OF FUGITIVE DUST. IT MAY BE NECESSARY TO LIMIT CONSTRUCTION VEHICLE SPEED IF BARE EARTH HAS NOT BEEN EFFECTIVELY WATERED. IN NO CASE SHALL FUCIDIVE DUST BE ALLOWED TO LEAVE THE SITE UNDER CONSTRUCTION.
  - B. AS SOON AS PRACTICAL AFTER COMPLETION OF CONSTRUCTION BARE EARTH AREAS SHALL BE VEGETATED.
  - C. ANY TIME DURING AND AFTER SINE CONSTRUCTION THAT WATERING AND/OR VEGETATION ARE NOT EFFECTIVE IN CONTROLLING WIND EROSION AND/OR THE TRANSPORT OF FUGITIVE DUST, OTHER METHODS AS ARE NECESSARY FOR SUCH CONTROL SHALL BE EMPLOYED. THESE METHODS MAY INCLUDE ERECTION OF DUST CONTROL FENCES. BUST CONTROL FENCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH FOOT INDEX 102, EXCEPT THE MINIMUM HEIGHT SHALL BE 4 FEET.

#### DEMOLLION NOTES (IF NECESSARY):

- 1. CONTRACTOR SHALL SUBMIT DEMOLITION SCHEDULE TO OWNER PRIOR TO PROCEEDING WITH DEMOLITION ACTIVITIES.
- 2. EXTENT OF SHE CLEARING AS SHOWN ON DRAWINGS.
- 3. SITE DEMOLITION WORK INCLUDES, BUT IS NOT LIMITED TO:
  - A. ROADWAY

    B. DRAINAGE AREA

    C. SUE HOUTES
- C. SITE UTILITIES D. LANDSCAPING
- 4. CONDUCT SITE DEMOLITION OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM AUTHORITIES MAYING JURISDICTION.
- 5. PROVIDE PROTECTION NECESSARY TO PREVENT DAMAGE TO EXISTING IMPROVEMENTS INDICATED ON PLAN "EXISTING TO REMAIN."
- 6. RESTORE DAMAGED IMPROVEMENTS TO THEIR CRICINAL CONDITION, AS ACCEPTABLE TO PARTIES HAVING JURISDICTION.
- 7. KEMOVE WASTE MATERIALS AND UNSUITABLE AND EXCESS TOPSOIL FROM PROPERTY AND DISPOSE OF OFF SITE IN A ELGAL MANNER.
- 8. LGCATE EXISTING ABOVE-CROUND AND UNDERCROUND UTILITIES IN AREAS OF WORK, IF UTILITIES ARE TO REMAIN IN PLACE, PROVIDE ADEQUATE MEANS OF SUPPORT AND PROTECTION DURING DEMOLITION CHERATION.
- 9. SHOULD UNCHARIED, OR INCORRECTLY CHARTED, PIPING OR OTHER UTILITIES BE ENCOUNTERED DURING DEMOLITION, CONSULT PROJECT ENGINEER AND UTILITY OWNER FOR IMMEDIATE ACTION.
- 10. DEMOLISH AND COMPLETELY REMOVE FROM SITE MATERIAL INDICATED ON PLAN OR NOTES "TO BE REMOVED."
- 11. PROTECT: STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, OTHER FACILITIES FROM DAMAGE CAUSED BY: SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT, OTHER HAZARDS CREATED BY THE DEMOLITION OPERATION.
- 12. FOR SELECTIVE CLEARING REFER TO LANDSCAPE PLANT
- 13. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO EXISTING CONDITIONS OR BETTER. FURTHERMORE, CONTRACTOR SHALL PROVIDE TO THE ENGINEER A PHOTOGRAPH OF PRE-CONSTRUCTION CONDITIONS AND POST-CONSTRUCTION CONDITIONS AS NOTED ON PLANS.
- 14. CONTRACTOR SHALL MAINTAIN STORMWAIER MANAGEMENT SYSTEM TO INSURE NO DAMAGE TO ADJACENT PROPERTIES COOURS DURING 100-YEAR STORM EVENTS.

#### <u>DEWATERING NOTES (IF NECESSARY):</u>

- 1. DURING THE EXCAVATION OF THE STORMWATER PONDS, THE CONTRACTOR MUST CONSTRUCT A SEDIMENT BASIN TO PROVIDE A DISCHARGE POINT FOR DEWATERING. THE SEDIMENT BASIN CAN BE A CELL IN THE PROPOSED EXCAVATION AREA OF A POND OR IT CAN BE A BERMED AREA ABOVE GROUND. ALL DEWATERING MUST BE HELD IN THE SEDIMENT AREA UNTIL THE WATER IS CLEAN SUCH THAT THERE WOULD BE NO TURBED DISCHARGE, AFTER THE WATER IN THE SEDIMENT BASIN IS CLEAN, THE WATER MAY BE RELEASED INTO THE ON-SITE WETLANDS PROMODED THERE IS NO ADVERSE IMPACT TO THE EXISTING WATER QUALITY.
- 2. UNDER NO CIRCUMSTANCES WELL THE DISCHARGE FROM THE DEWATERING BE DIRECTLY INTO ON-SITE WETLANDS.
- 3. DURING EXCAVATION THE CONTRACTOR SHALL NOT PENETRATE THE EXISTING CLAY LAYER IF PRESENT. IF THE CONTRACTOR ENCOUNTERS THE CLAY LAYER, HE/SHE IS TO PLACE A MINIMUM OF 2 FEET OF SANDY MATERIAL OVER THE CLAY AND I TERMINATE THE DEPTH OF THE EXCAVATION.
- 4. JE CONTRACTOR ENCOUNTERS SILTY/CLAY SAND, WHICH CAUSE THE WATER TO BECOME TURBID, HE/SHE SHALL TREAT THE SEDMENT BASIN WITH A CHEMICAL ADDITIVE SUCH AS ALUM IN ORDER TO PROMOTE THE COACULATION AND SETTLEMENT OF THE PARTICLES FOR THE WATER TO BECOME LESS TURBID. JE TURBID WATER IS ENCOUNTERED DURING EXCAVATION OF THE PONDS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY TO DETERMINE THE COURSE OF ACTION THAT IS APPROPRIATE TO ELIMINATE THE TURBITY AND ALLOW DISCHARGE THAT MEETS AFTER QUALITY STANDARDS.
- 5. THE CONTRACTOR SHALL SEQUENCE THE EXCAVATION OF THE STORMWATER PONDS SUCH THAT A SEDIMENT BASIN WILL BE AVAILABLE AT ALL TIMES. THE SEDIMENT BASIN CAN BE RELOCATED AS NECESSARY TO ENSURE THE WATER WITHIN THE SEDIMENT BASIN BECOMES NON-TURBID AND ACCEPTABLE FOR DISCHARGE OFF-SITE.

#### BEST MANAGEMENT PRACTICES:

THIS PLAN HAS BEEN PREPARED TO ENSURE COMPLIANCE WITH APPROPRIATE CONDITIONS OF LOCAL, STATE, AND FEDERAL REGULATIONS. THE PLAN ADDRESSES THE FOLLOWING AREAS:

- GENERAL EROSION CONTROL.
   PROJECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION.
- 3. CONTROL OF WIND EROSION.
- THE VARIOUS TECHNIQUES OR ACTIONS IDENTIFIED UNDER EACH SECTION INDICATE THE APPROPRIATE SITUATION WHEN THE TECHNIQUES SHOULD BE EMPLOYED. IT SHOULD BE NOTED THAT THE MEASURES IDENTIFIED ON THIS PLAN ARE ONLY SUGGESTED EMP(S). THE CONTRACTOR SHALL PROVIDE POLLUTION PREVENTION AND EROSION CONTROL MEASURES AS SPECIFIED IN FOOT INDEX #102 AND AS NECESSARY FOR EACH SPECIFIC APPLICATION.

#### SECTION 2 PROTECTION OF SURFACE WATER QUALITY DURING AND AFTER CONSTRUCTION:

- 1. SURFACE WATER OUALITY SHALL BE MAINTAINED BY EMPLOYING THE FOLLOWING BEST MANACEMENT PRACTICES IN THE CONSTRUCTION PLANNING AND CONSTRUCTION OF ALL IMPROVEMENTS.
- 2. WHERE PRACTICAL, STORMWATER SHALL BE CONVEYED BY SWALES.
- J. EROSION CONTROL MEASURES SHALL BE EMPLOYED TO MINIMIZE TURBIDITY OF SURFACE WATERS LOCATED DOWNSTREAM OF ANY CONSTRUCTION ACTIVITY. WHILE THE VARIOUS MEASURES REQUIRED WILL BE SITE SPECIFIC, THEY SHALL BE EMPLOYED AS NEEDED IN ACCORDANCE WITH THE FOLLOWING:
  - A. IN CEMERAL, ERGRICH SHALL BE CONTROLLED AT THE FURTHEST PRACTICAL UPSTREAM LOCATION.

    B. STORMWATLIN INLETS SHALL BE PROTECTED DURING CONSTRUCTION AS SHOWN IN FOOT INDEX 102. PROTECTION MEASURES SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION. SILT BARRIERS SHALL BE EMPLOYED AS SOON AS PRACTICAL DURING THE VARIOUS STAGES OF INLET CONSTRUCTION.
- 4. HEAVY CONSTRUCTION EQUIPMENT PARKING AND MAINTENANCE AREAS SHALL BE DESIGNED TO PREVENT OIL, GREASE, AND LUBRICANTS FROM ENTERING SITE DRAINAGE FEATURES INCLUDING STORMWATER COLLECTION AND TREATMENT SYSTEMS.
  CONTRACTORS STALL PROVIDE BROAD DIKES, HAY BALES OR SILT SCREENS AROUND, AND SEDIMENT SUMPS WITHIN SUCH AREAS TO CONTAIN SPILLS OF OIL, CREASE OR LUBRICANTS. CONTRACTORS SHALL HAVE AVAILABLE, AND SHALL USE ABSORMENT HILLER PAIR. TO CLEAN UP SPILLS AS SOON AS POSSIBLE AFTER OCCURRENCE,
- 5. SELT BARRERS, ANY SILT WHICH ACCUMULATES DELINO THE BARRERS AND ANY FILL USED, TO ANCHOR THE BARRIERS SHALL BE REMOVED PROMPTLY AFTER THE END OF THE MAINTENANCE PERIOD SPECIFIED FOR THE BARRIERS.
- 6. PREVENT EROSION VIROM SHEET FLOW ACROSS HARE ORGUND FROM ENTERING A LAKE OR SWALE BY INSTALLING A TEMPORARY SEDIMENT SUM AS REQUIRED. THE TEMPORARY SEDIMENT SUMP SHALL REMAIN IN PLACE UNTIL VEGETATION IS ESTABLISHED ON THE GROUND DRAINING TO THE SUMP.

TAPPINAL CONTRACTOR SULEVARD SUITE 230

FANAMA CITY BEACH, PL. 32407 PHONE: 850–853–3500



NOVEMBER 2023
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SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL THROUGHOUT EARTH- DISTURBING

SETTLING FACILITIES, PERIMETER CONTROLS, AND OTHER PRACTICES INTENDED TO TRAP SEDIMENT SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN SEVEN DAYS FROM THE START OF GRUBBING. THEY SHALL CONTINUE TO FUNCTION UNTIL THE UPSLOPE DEVELOPMENT AREA IS RE-STABILIZED.

#### STABILIZATION OF NON STRUCTURAL PRACTICES:

CONTROL PRACTICES SHALL PRESERVE EXISTING VEGETATION WHERE ATTAINABLE AND DISTURBED AREAS SHALL BE RE-VEGETATED AS SOON AS PRACTICAL AFTER GRADING OR CONSTRUCTION.

DENUDED AREAS SHALL HAVE SOIL STABILIZATION APPLIED WITHIN FOURTEEN DAYS IF THEY ARE TO REMAIN DORMANT FOR MORE THAN FORTY-FIVE DAYS. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN FOURTEEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE, AND SHALL ALSO BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS WHICH MAY NOT BE AT FINAL GRADE, BUT WILL REMAIN DORMANT (UNDIGTURBED) FOR LONGER THAN FORTY-FIVE DAYS.

#### SEDIMENT BARRIERS:

SHEET FLOW RUNGER FROM DENUDED AREAS SHALL BE INTERCEPTED BY SEDIMENT BARRIERS.

SEDIMENT DARRICHS SUCH AS SEDIMENT FENCE OR DIVERSIONS TO SETTLING FACILITIES SHALL PROTECT ADJACENT PROPERTIES AND WATER RESOURCES FROM SEDIMENT TRANSPORTED BY SHEET FLOW

#### INLET PROTECTION:

ALL STORM SEWER INLETS WHICH ACCEPT WATER RUNOFF FROM THE DEVELOPMENT AREA SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER WILL NOT ENTER THE STORM SYSTEM WITHOUT FIRST BEING PONDED AND FILTERED.

#### MAINTENANCE:

TEMPORARY EROSION CONTROL FEATURES SHALL BE ACCEPTABLY MAINTAINED AND SHALL BE REMOVED OR REPLACED WHEN DIRECTED BY THE ENGINEER AT NO COST TO THE OWNER. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS.

#### STOCKPILES:

ALL SOIL STOCKPILES SHALL BE PROTECTED FROM EROSION BY PERIMETER CONTROL DEVICES SUCH AS STRAW BALE DIKES OR FILTER FABRIC FENCES. AND THESE PERIMETER CONTROL DEVICES SHALL BE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT.

#### PERMANENT VEGETATION:

PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL GROUND COVER IS ACHIEVED WHICH, IN THE OPINION OF THE ENGINEER, PROVIDES ADEQUATE COVER AND IS MATURE ENOUGH TO CONTROL SOIL EROSION SATISFACTORILY AND TO SURVIVE ADVERSE WEATHER CONDITIONS.

### CONSTRUCTION ACCESS ROUTES:

MEASURES SHALL HE TAKEN TO PREVENT SOIL TRANSPORT ONTO SURFACES OR PUBLIC ROADS WHERE RUNOFF IS NOT CHECKED.

## INSPECTION SCHEDULE:

- DIVERSION SWALE AND STRUCTURAL PROTECTION INSPECT EVERY 7 DAYS OR AFTER EACH BAINSTORM PRODUCING RUNOFF. REPAIR AS REQUIRED.
- 2. INLET PROTECTION INSPECT FOR SEDIMENT ACCUMULATION AFTER EACH RAINFALL AND DAILY BURING CONTINUED RAINFALL. REPAIR OR REPLACE WHEN WATER FLOW IS RESTRICTED BY SEDIMENT.
- VEGETATIVE PLANTING INSPECT AFTER SPROUTING OCCURS AND REPLANT BARE AREAS. INSPECT ESTABLISHED COVER EVERY 15 DAYS FOR DAMAGE; REPLANT AS REQUIRED. MAINTAIN ESTABLISHED COVER AT MAXIMUM 6" HEIGHT. IRRIGATE AS REQUIRED DURING DRY PERIODS TO MAINTAIN LIVE VEGETATION.

## CONSTRUCTION SEQUENCE:

1. INSTALL SEDIMENT CONTROL MEASURES

- 2, PERFORM DEMOLITION ACTIVITIES.
- 3. STABILIZE SITE WITH TEMPORARY VEGETATION AS NEEDED.
- 4. PERFORM UNDERGROUND UTILITY CONSTRUCTION ACTIVITIES.
- CONSTRUÇT İNFRASTRUCTURE.
- 6. PERFORM FINAL GRADING.
- 7. INSTALL PERMANENT VEGETATION.
- 8. PERFORM CONTINUING MAINTENANCE THROUGHOUT ALL CONSTRUCTION OPERATIONS.

#### DITCH BARRIERS:

BALES SHALL BE PLACED IN A SINGLE ROW, LENGTHWISE, ORIENTED PERPENDICULAR TO THE CONTOUR, WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.

THE REMAINING STEPS FOR INSTALLING A STRAW BALE BARRIER FOR SHEET FLOW APPLICATIONS APPLY HERE, WITH THE FOLLOWING ADDITION. THE STRAW BALES SHALL BE INSTALLED SUCH THAT UNDERCUTTING BENEATH THE BALES IS MINIMIZED BY THE USE OF ROCK CHECK DAMS PLACED ADJACENT TO THE STRAW BALES.

THE BARRIER SHALL BE EXTENDED TO SUCH A LENGTH THAT THE BOTTOMS OF THE END BALES ARE HIGHER IN ELEVATION THAN THE TOP OF THE LOWEST MIDDLE BALE TO ASSURE THAT SEDIMENT-LADEN RUNOFF WILL FLOW EITHER THROUGH OR OVER THE BARRIER BUT NOT AROUND IT.

#### MAINTENANCE:

STRAW BALES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.

CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES.

NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY.

SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE

ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE STRAW BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

#### SEDIMENT FENCE:

THIS SEDIMENT BARRIER UTILIZES STANDARD STRENGTH OR EXTRA STRENGTH SYNTHETIC FILTER FABRICS. IT IS DESIGNED FOR SITUATIONS IN WHICH ONLY SHEET OR OVERLAND FLOWS ARE EXPECTED.

- THE HEIGHT OF A SEDIMENT FENCE SHALL NOT EXCEED 36-INCHES (HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE).
- THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY SEALED.
- POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 12 INCHES). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED
- 4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
- WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1-INCH LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8-INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
- WHEN EXTRA STRENGTH FILTER FABRIC AND CLOSURE POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF ITEM NO. 6
- THE TRENCH SHALL BE BACKFILLED AND SOIL COMPACTED OVER THE FILTER FABRIC.
- SEDIMENT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

### MAINTENANCE

SEDIMENT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

SHOULD THE FABRIC ON A SEDIMENT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.

SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-THIRD THE HEIGHT OF THE BARRIER.

ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SEDIMENT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED.

#### ADDITIONAL MEASURES:

THIS PLAN AND NARRATIVE REPRESENTS THE MINIMUM AMOUNT OF EROSION AND SEDIMENT CONTROL MEASURES, IN THE OPINION OF THE ENGINEER, THAT MAY BE NECESSARY UNDER FAVORABLE WEATHER CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR ANY ADDITIONAL MEASURES OR PRACTICES THAT MAY BE NECESSARY TO CONTROL EROSION, TURBID DISCHARGE, FUGITIVE PARTICULATES, ETC. TO FULLY COMPLY WITH ALL GOVERNMENTAL RULES AND/OR PERMIT REQUIREMENTS.

#### EROSION AND SEDIMENT CONTROL NARRATIVE

RANSLEY STATION DEVELOPMENT, LLC

41 N. JEFFERSON STREET 4TH FLOOR

PENSACOLA, FLORIDA 32502

(850) 607-6069

KIMLEY-HORN AND ASSOCIATES INC.

120 RICHARD JACKSON BOULEVARD, SUITE 230 PANAMA CITY BEACH, FLORIDA 32407

(850) 533-3500

CAH DEVELOPMENTS, LLC.

41 N. JEFFERSON STREET 4TH FLOOR

PENSACOLA, FLORIDA 32502

(850) 607-6069

EROSION AND SITE RUNOFF WILL BE CONTROLLED BY THE USE OF EROSION SEDIMENT FENCE AND STABILIZED VEGETATION WHERE NEEDED

CONTROL MEASURE:

CAH DEVELOPMENTS, LLC.

41 N, JEFFERSON STREET 4TH FLOOR

PENSACOLA, FLORIDA 32502

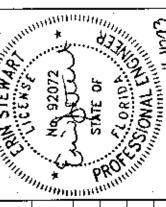
(850) 607-6069

#### POLLUTION PREVENTION:

THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PROGRAM IS REGULATED THROUGH THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP). IF YOUR CONSTRUCTION ACTIVITY MEETS THE FOLLOWING CRITERIA:

- CONTRIBUTES STORM WATER DISCHARGE TO SURFACE WATERS OF THE STATE OR INTO A MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4); AND/OR
- DISTURBS ONE OR MORE ACRES OF LAND INCLUDING LESS THAN ONE ACRE IF ACTIVITY IS PART OF A LARGE COMMON PLAN OF DEVELOPMENT OR SALE THAT WILL MEET OR EXCEED A ONE ACRE THRESHOLD. DISTURBANCE INCLUDES CLEARING, GRADING AND EXCAVATING. THEN YOU WILL BE REQUIRED TO SUBMIT A NOTICE OF INTENT (NOI) AND PREPARE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). FOR MORE INFORMATION PLEASE VISIT FDEP'S WEBSITE AT WWW.DEP.STATE.FL.US/WATER/STORMWATER/NPDES.

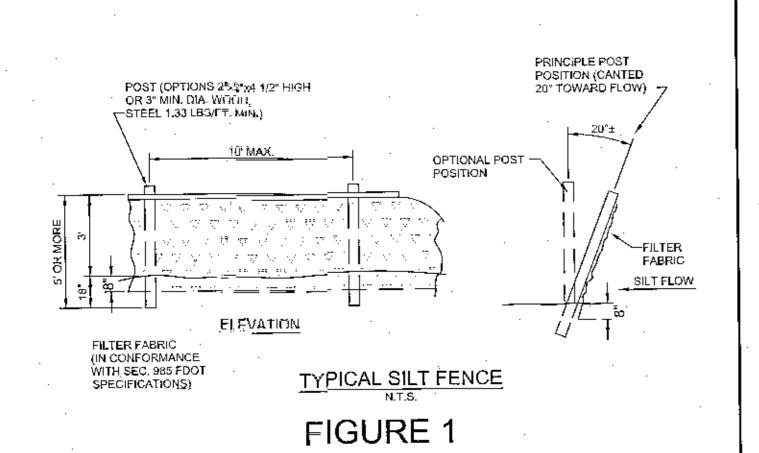
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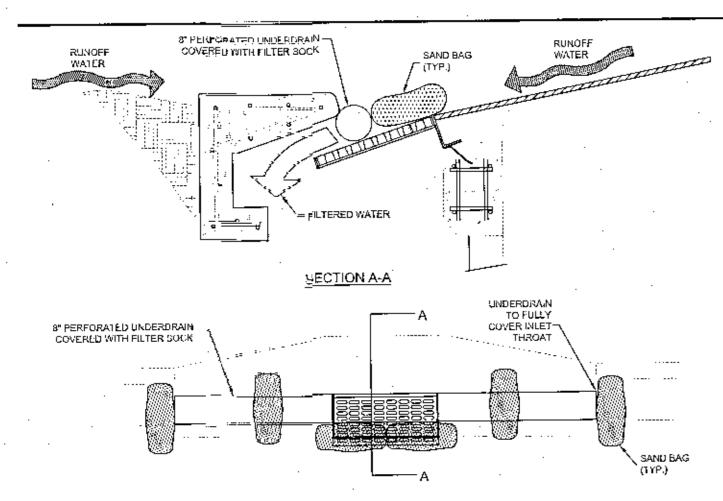


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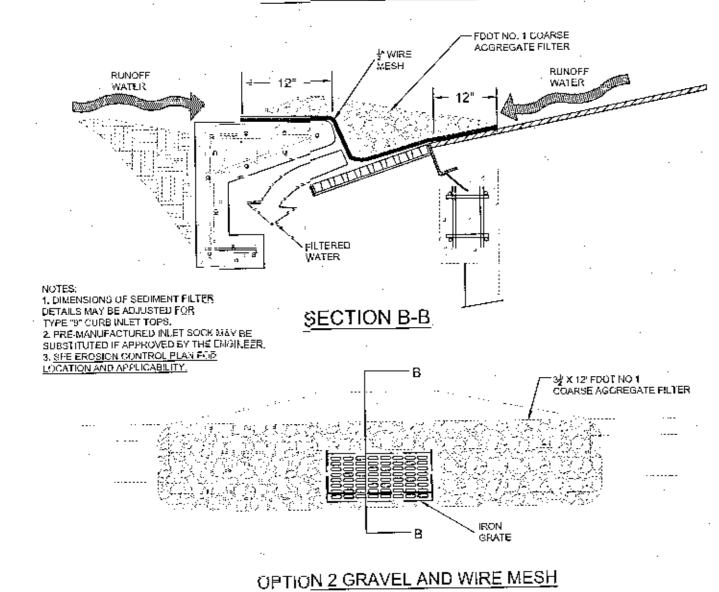
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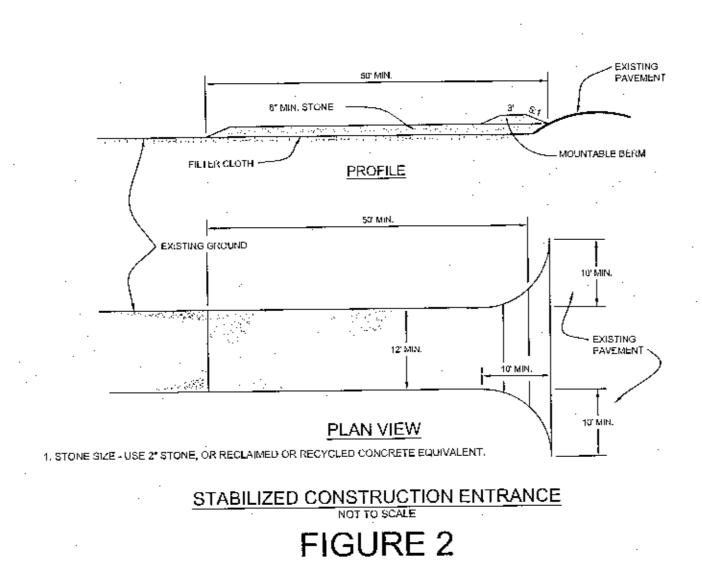


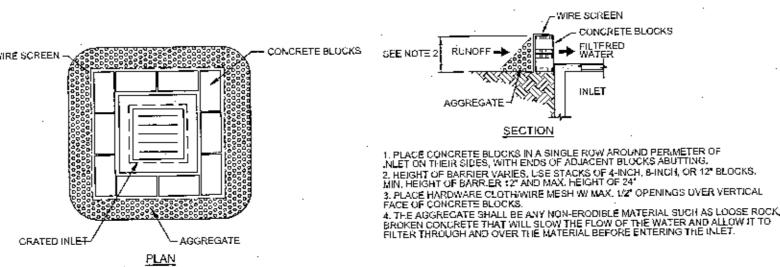


OPTION 1 UNDERDRAIN FILTER

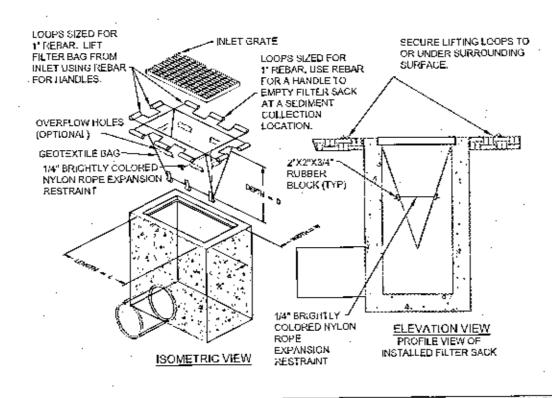


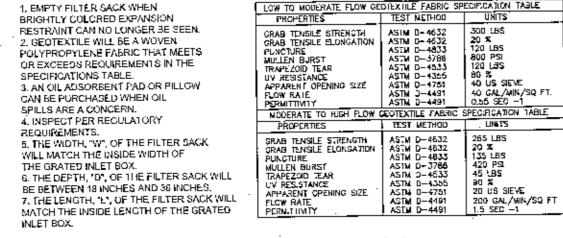
**CURB INLET SEDIMENT FILTER DETAIL** 



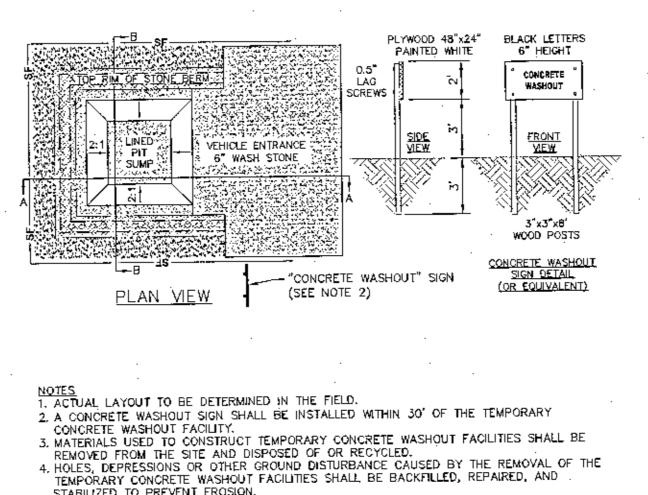


BLOCK AND AGGREGATE INLET SEDIMENT DEVISE



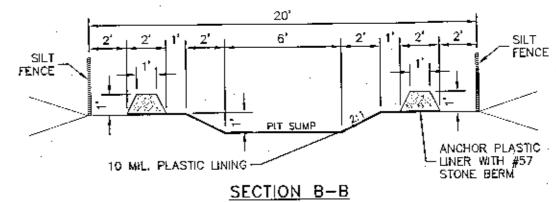


FILTER SACKS (GRATED INLETS)



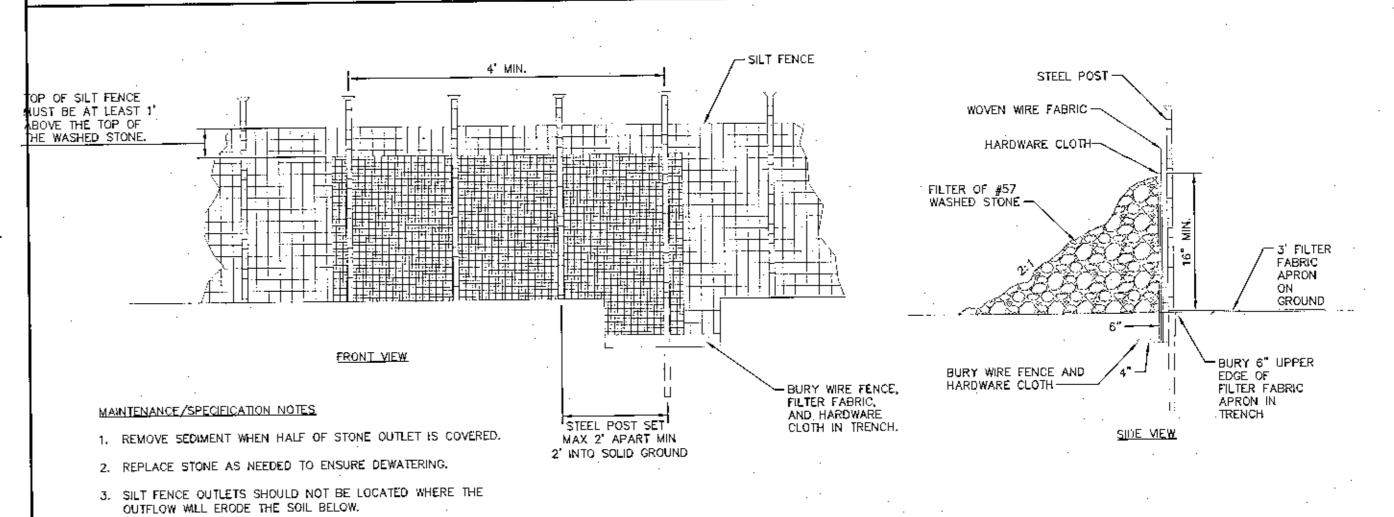
STABILIZED TO PREVENT EROSION.
5. PIT CAPACITY IS MINIMUM OF 6 CUBIC FEET PER 10 CUBIC YARDS OF CONCRETE.

FENCE VEHICLE ENTRANCE — KEY IN REMOVABLE LINING ANCHOR PLASTIC LINER WITH #57 — STONE BERM 10 MIL. PLASTIC LINING SECTION A-A



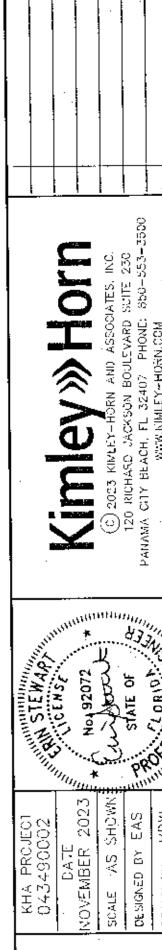
CONCRETE WASHOUT STATION N.T.S.

FIGURE 4



SILT FENCE OUTLET

FIGURE 5

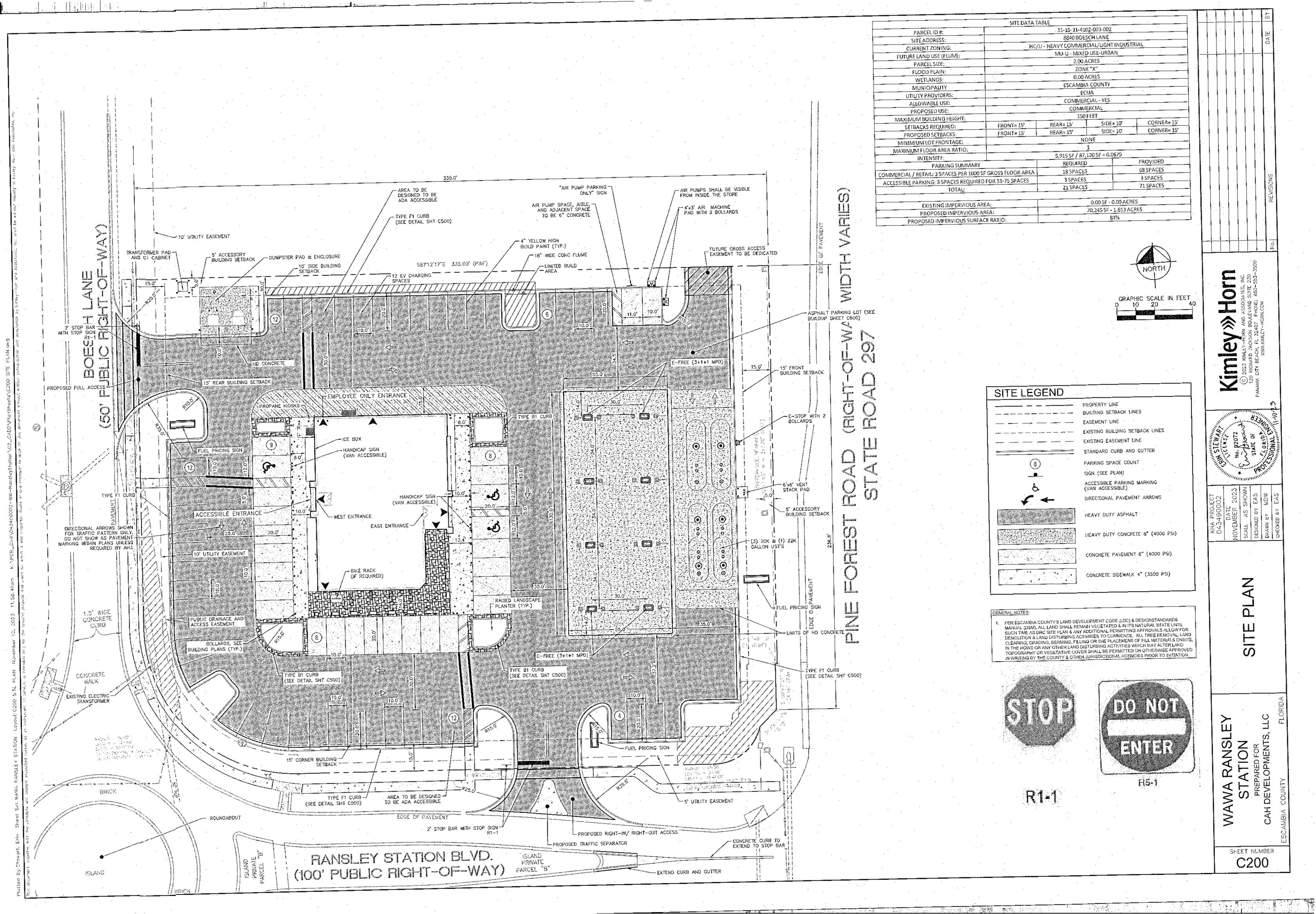


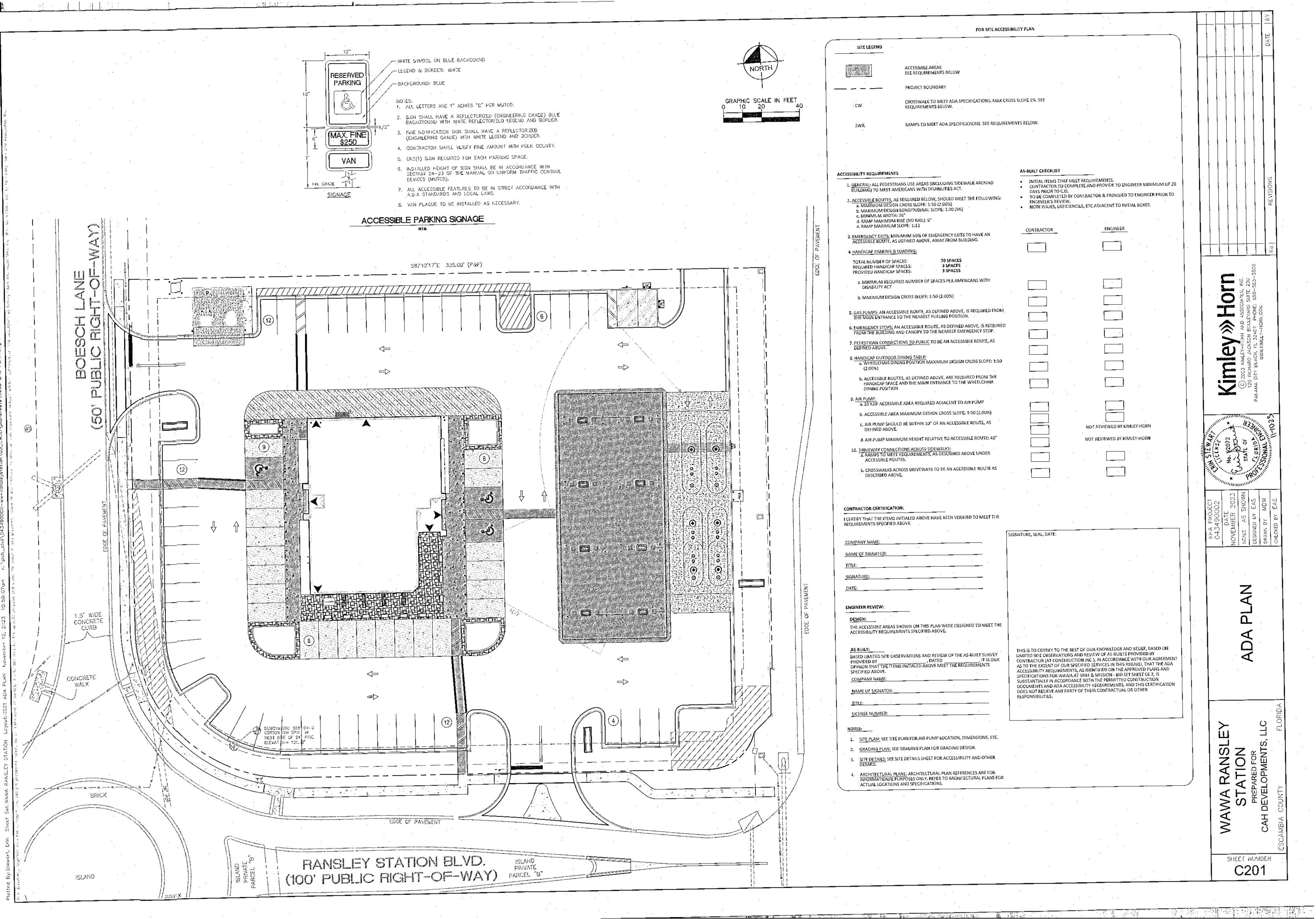
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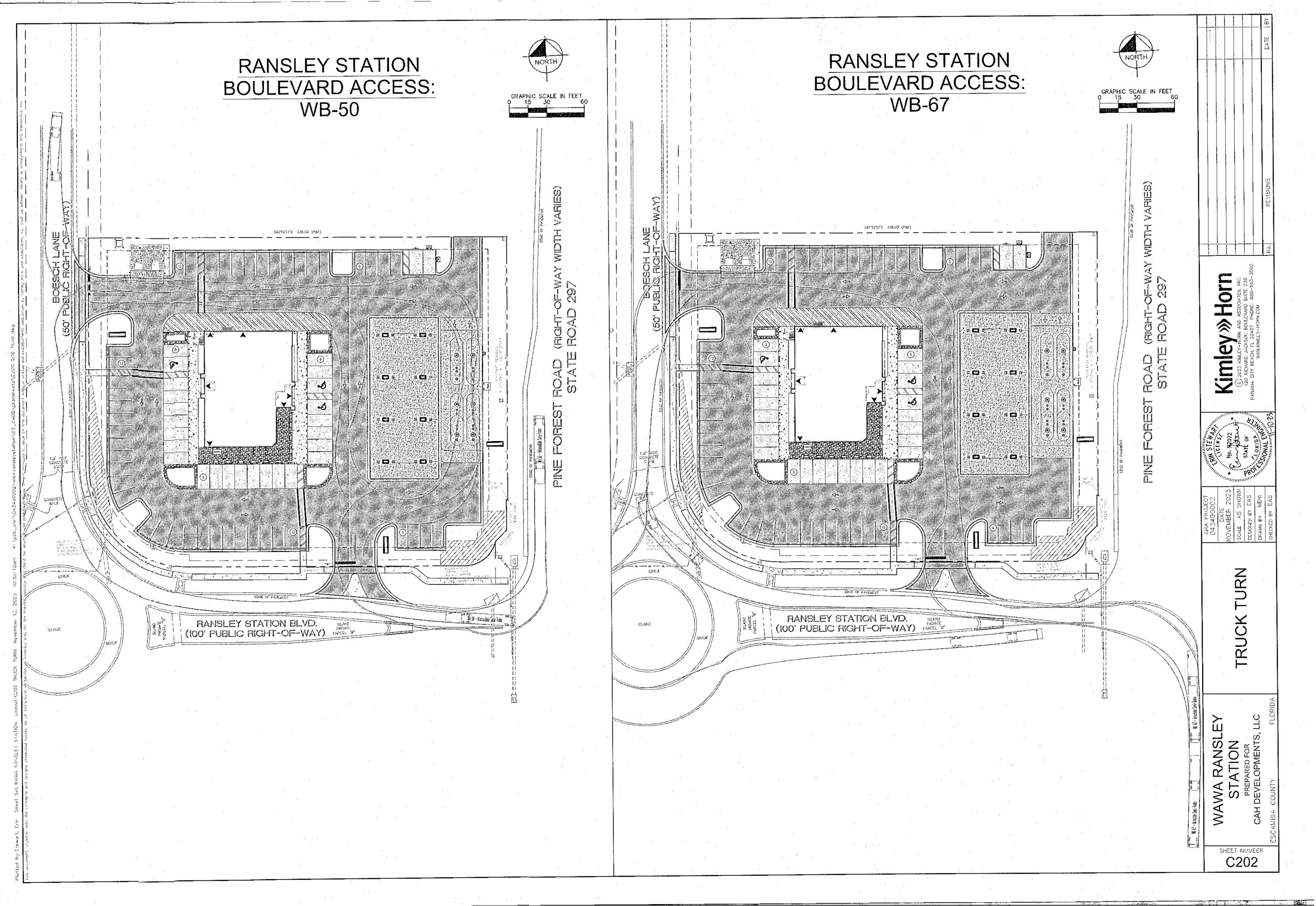
WAWA RANSLE STATION

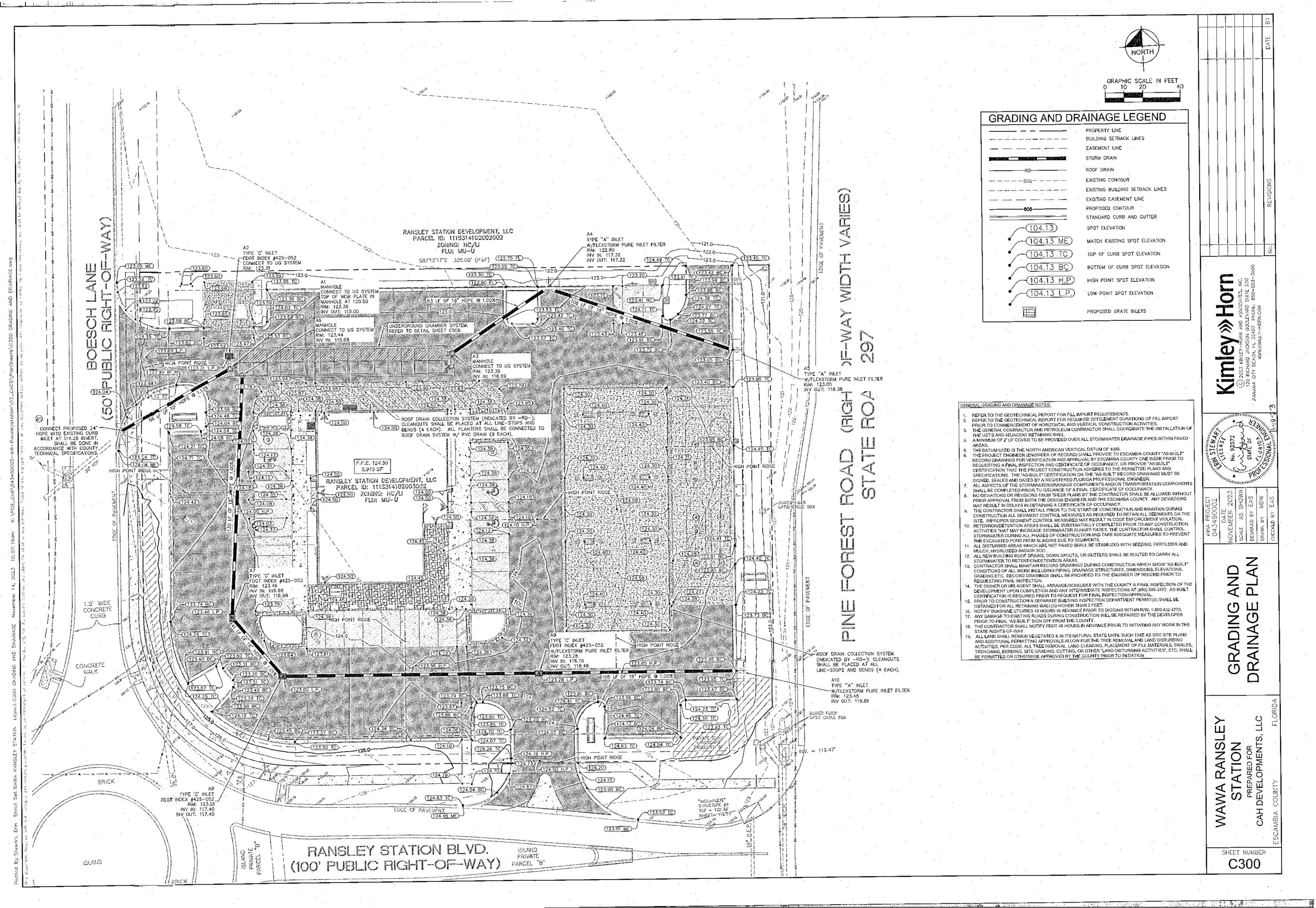
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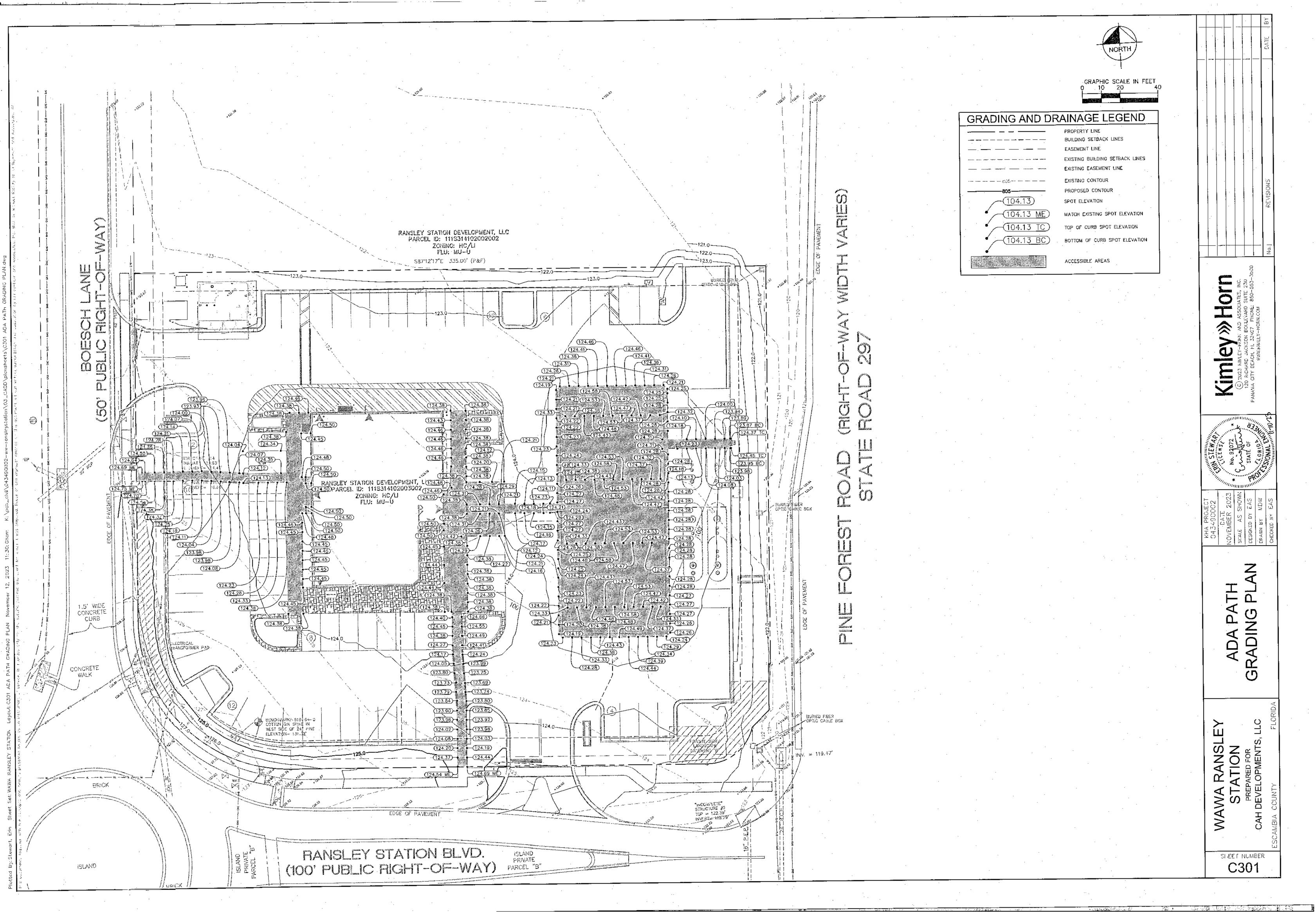
DO NOT USE ON ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS. FIGURE 3

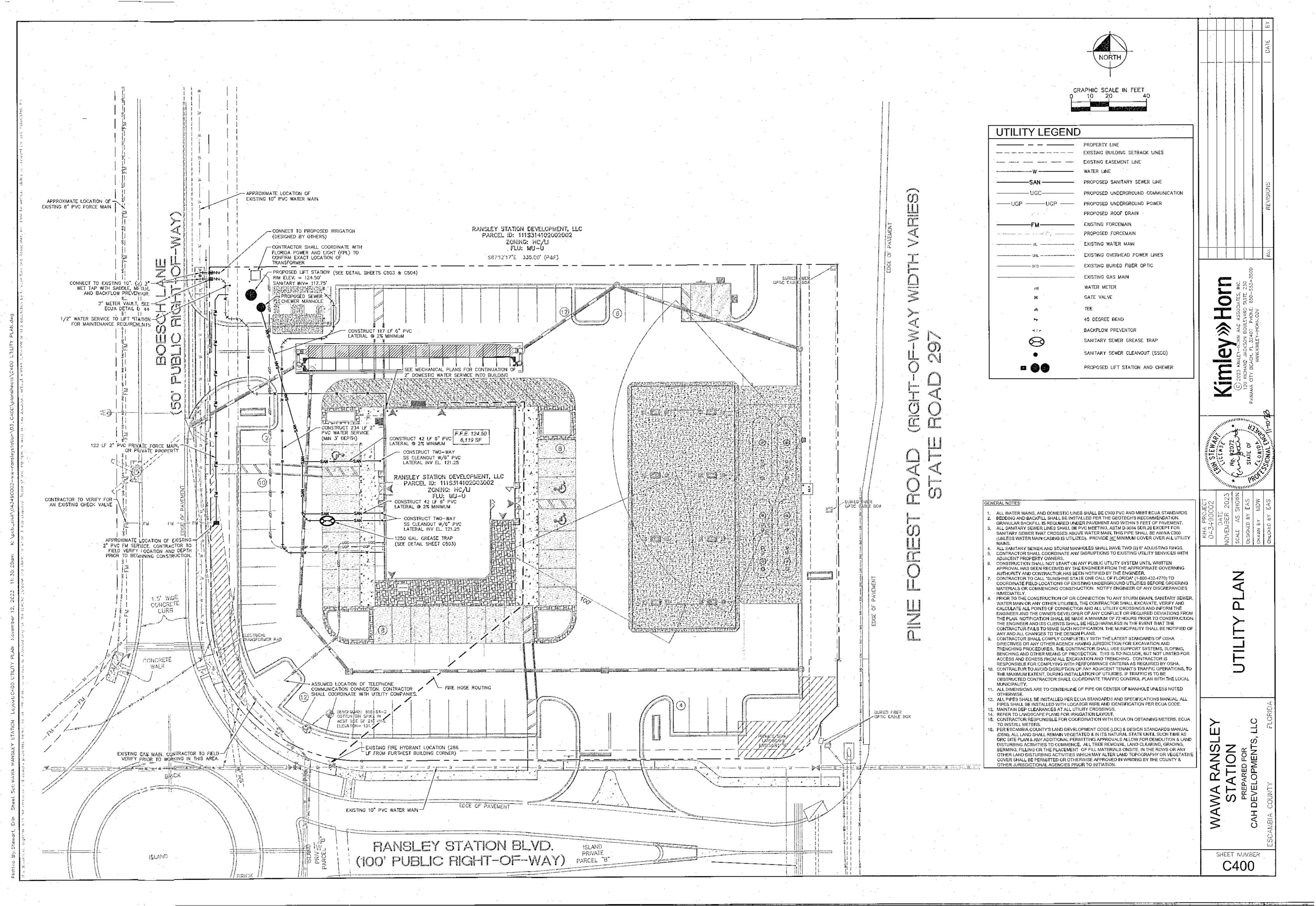


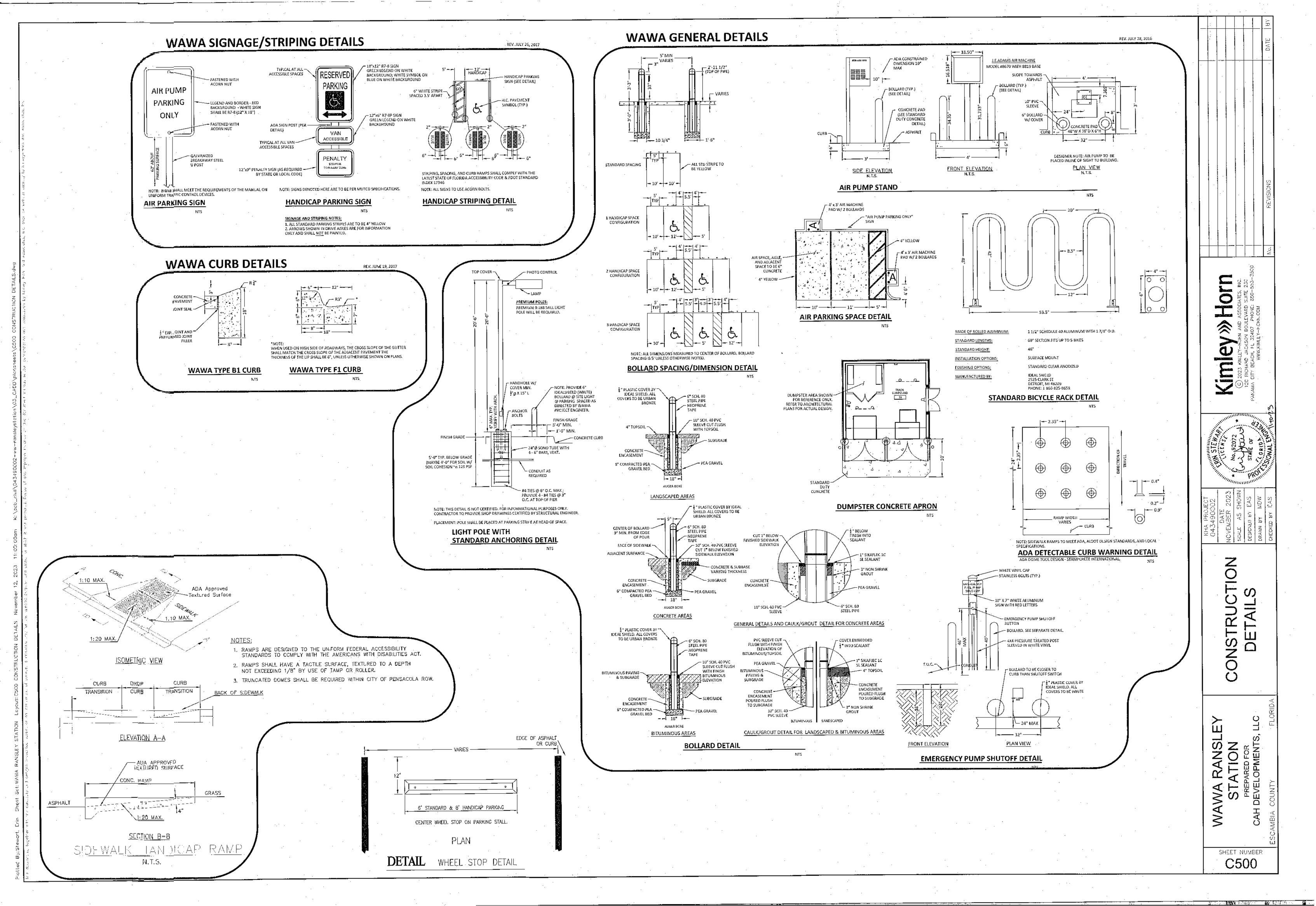


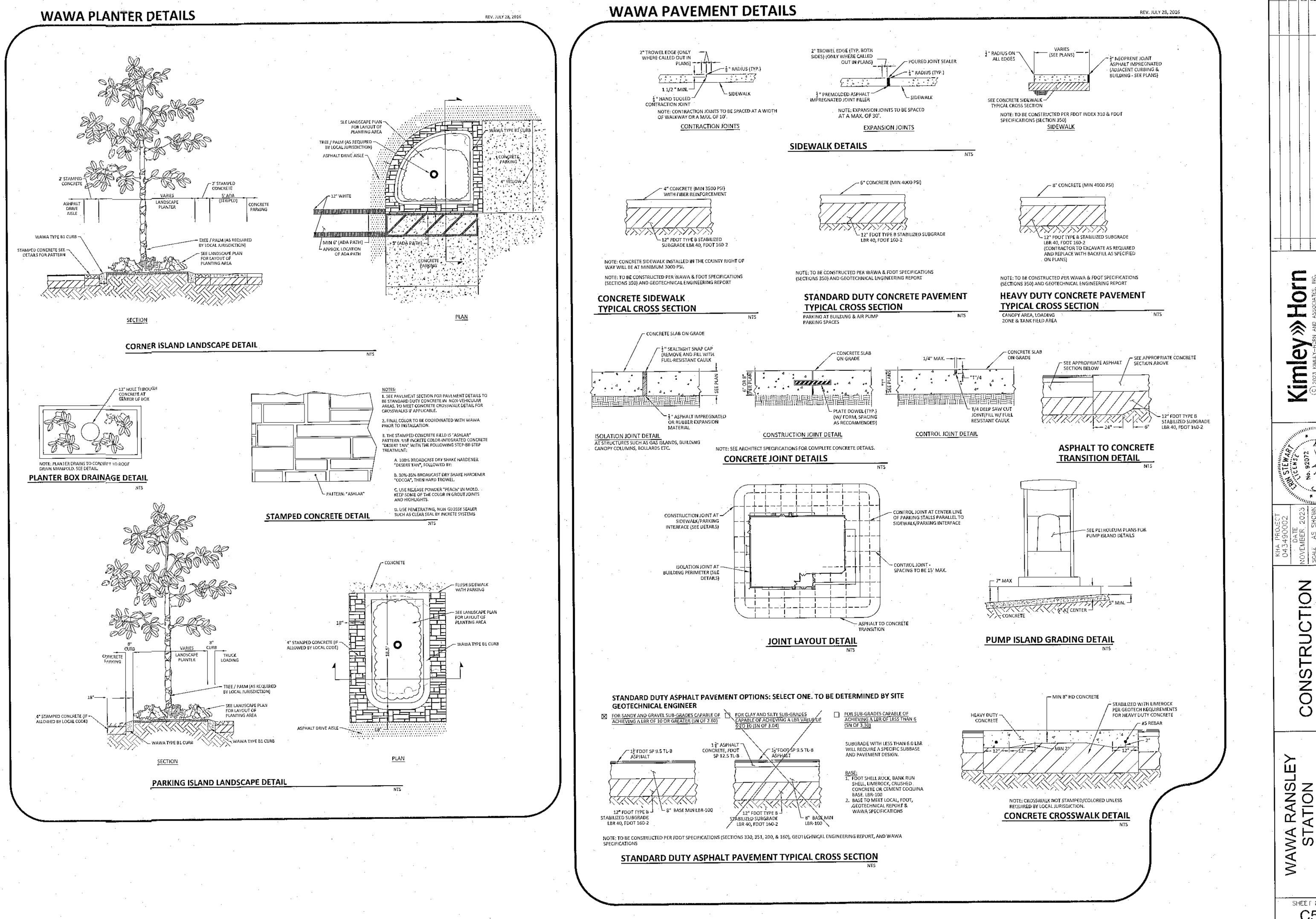


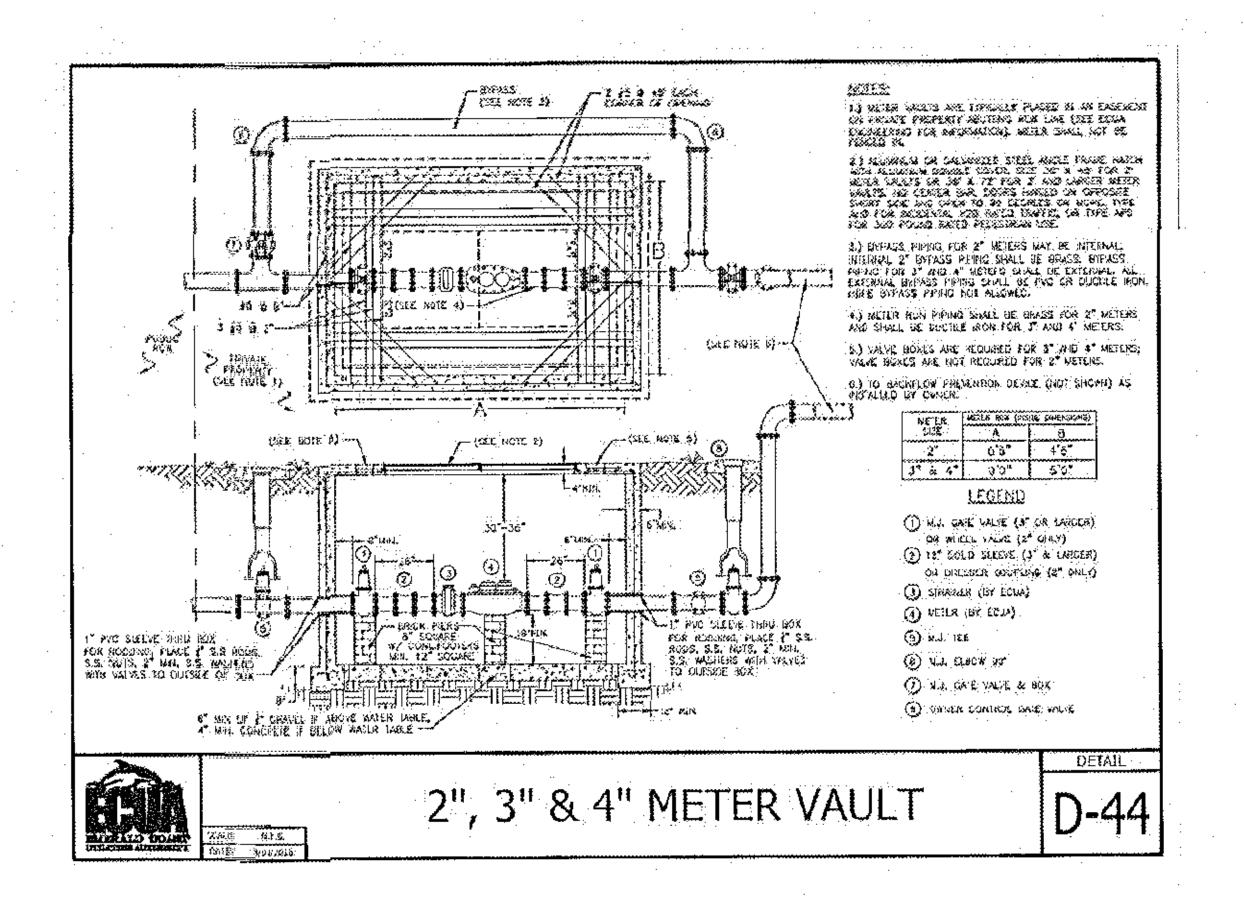


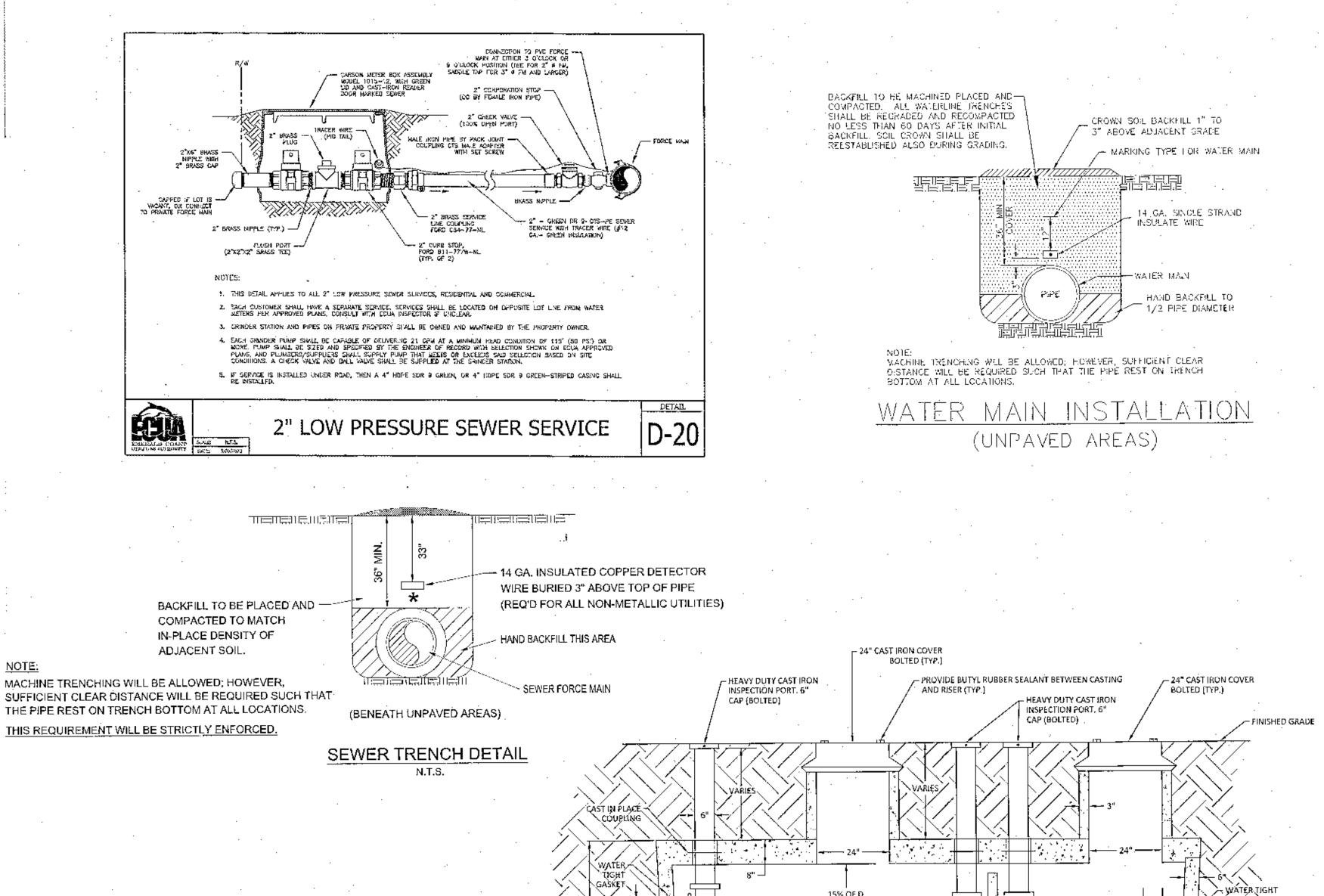


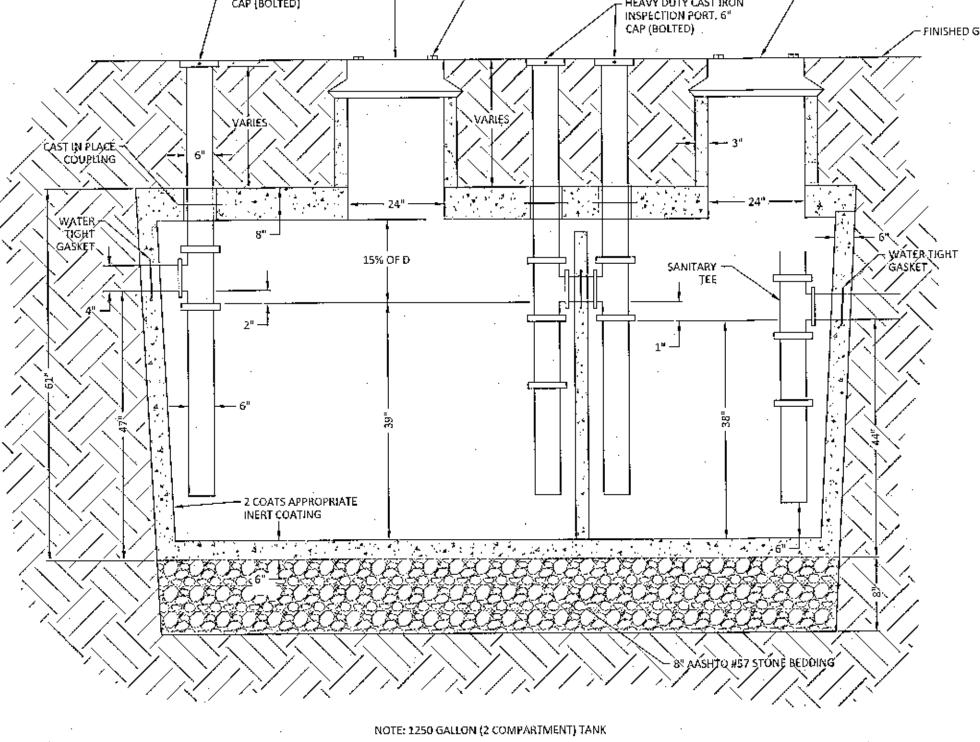












## **GREASE TRAP DETAIL**

ALL INLET AND OUTLET PIPES SHALL BE INSTALLED NO MORE THAN 6" FROM THE BOTTOM OF THE GREASE TRAP, TANK TAPERS TOP TO BOTTOM AND IS TRAPEZUIDAL IN CROSS SECTION. TANK IS \$000 PSI CONCRETE-STEEL REINFORCED (@ 28 DAYS) CONCRETE CONFORMS TO ACI 318-16-4.5.1 AND 318-16-4.5.2, ASTM A615 AND A185

#### -DIMENSION: 10'7" INTERIOR/ 11'7" EXTERIOR LENGTH x 5'2" INTERIOR/ 6'2"" EXTERIOR WIDTH

1) WHEN LOCATED IN DRIVEWAYS OR PAVED AREAS, GREASE TRAP TO BE DESIGNED FOR APPROPRIATE LOAD BEARING CONDITIONS, GREASE TRAP SHALL BE CAPABLE OF WITHSTANDING HS-20 LOADING. ALL PIPE PENETRATIONS SHALL BE WATERTIGHT.

3) GREASE TRAP SHALL BE PROVIDED WITH GAS-TIGHT MANHOLE COVERS, IN ACCORDANCE WITH TOWNSHIP STANDARD SPECIFICATIONS.

4) PRECAST CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH 5000 PSI.

5) EXTERIOR CONCRETE SURFACES BELOW GRADE SHALL HAVE 2 COATS OF COAL TAR EPOXY.

6) SPECIFIC SEALANT DETAIL AT CONCRETE RISER TO CONCRETE VAULT INTERFACE SHALL BE WATERTIGHT. AT A MINIMUM, THE JOINT SHALL BE SEALED WITH BUTYL RUBBER SEALANT (KENT SEAL #2 OR APPROVED EQUIVALENT) AND THE EXTERIOR OF THE JOINT SHALL BE SEALED WITH NON-SHRINK GROUT IN CONFORMANCE WITH THE TOWNSHIP STANDARD GREASE TRAP DETAIL.

7) TANK SHALL BE TESTED FOR WATER TIGHTNESS BY FILLING FOR 24 HRS. TO SOAK, THEN TOPPED OFF, AND THEN WATCHED FOR 24 HRS. NO DROP IN WATER IS ALLOWED.

8) CAST IRON SHALL BE BOLTED TO CONCRETE WITH MASTIC TAPE (KENT SEAL OR APPROVED EQUIVALENT). SEALANT,

9) MAXIMUM EARTH COVER=5.0', HS-20 LOADING.

10) INLET AND OUTLET EQUIPPED WITH PIPE SEALS.

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## WAWA, INC. TYPICAL FLORIDA PUMP STATION DETAIL

WAWA PREFERRED PRE-FABRICATED PUMP STATION VENDOR:

RILEY & Company, Inc. Sanford, FL 32773 (Ph. 407-265-9963)

# NO SUBSTITUTIONS - NO ALTERNATES LIFT STATION WILL BE PRIVATELY OWNED AND MAINTAINED.

The H-20 Load Rated Fibergiass Wetwell Must Be Manufactured By L.F. Manufacturing, Giddings, Texas, Which Includes A Written 20 Yr. Warranty. Certification of the wetwell H=20 load rating must be supplied with submittals. H-20 certification must be signed and sealed by an engineer registered in the State of Florida.

After the H-20 load rated wetwell has been installed, the ASTM Certification Number and Serial Tracking Number must be visible.

#### PUMPS: (3 YEAR WARRANTY)

Submersible grinder pumps shall be HOMA Model RC10027 FM. The pumps must be installed in the H-20 GP FRP wetwell utilizing a dual slide rail system. The grinder unit shall be capable of macerating materials normally found in domestic and commercial sewage into a fine slurry which will pass through the pump and the HDPE discharge piping.

Stator winding shall be open type with Class F insulation and shall be heatshrink fitted into the stator housing. The use of pins, bolts, or other fastening devices is not acceptable.

A heat sensor thermostat shall be attached to the top end of the motor winding and shall be connected in series with the magnetic contactor coil in the control panel to stop motor if winding temperature exceeds 140 C., but shall automatically reset when the winding temperature returns to normal. Two heat sensor thermostats shall be used on three phase motors.

The pump motor grinder shaft shall be AISI 430F SS threaded to take the pump impeller and the grinder impeller.

Upper & lower mechanical seals shall be Silicon Carbide vs Silicon Carbide.

MISCELLANEOUS: All wiring on the back panel shall be contained within the wiring duct. All wiring between the inner door and the back panel shall be contained with in a plastic spiral wrap.

Each wire shall have a wire number at each end to correspond to the as built drawing for field troubleshooting.

The control panel must be manufactured in-house by lift station supplier and be a TUV (UL508A Certified) facility.

FASTENERS & APPURTANCES: All fasteners, lifting chains, float cable bracket, hinges, and appurtenances shall be made of AISI 316SS.

A 316SS slide/latch assembly shall be provided for holding the doors open on the wetwell and valve box.
Slide rails shall be made of SCH.40 AISI 304SS pipe.
Pump lifting cables shall be made of AISI 316 SS.
Pump lifting bales shall be made of AISI 316 SS.

H-20 LOAD RATED WETWELL WITH LIFTING LUGS:
The fiberglass wetwell must be H-20 load rated with integral lifting lugs, fiberglass slope in bottom of wetwell and valve box. Certification of the H-20 load rating must be supplied at the time of submittals to Engineer. The wetwell shall be manufactured of fiberglass reinforced polyester (FRP) of depth and diameter as shown on the lift station elevation detail.

The wall thickness shall be adequate for the depth of the wetwell to maintain the H-20 LOAD RATING.

### EXECUTION:

Installation shall be in strict accordance with the manufacturer's recommendations in the locations shown on the drawing.

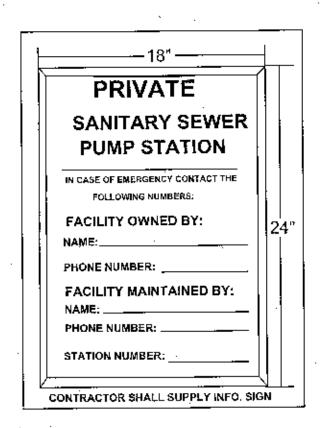
INSPECTION & TESTING: A fectory representative shall be provide for a one (1) time start-up and shall have complete knowledge of the proper operation and maintenance of complete system.

Megger the motors. The pump motors shall be megged out prior to the start-up to ensure that the insulation of the pump motor/cable is intact.

The pump controls and pumps shall be checked for mechanical reliability and proper operation.

PUMP DATA	1	
PRIMARY PUMP CAPACITY		29 GPM
PRIMARY TDH		28.9 'T <b>DH</b>
SECONDARY PUMP CAPACITY		40.5 <i>GPM</i>
SECONDARY TDH		18.5° <b>тон</b>
PUMP MANUFACTURER		HOMA
PUMP MODEL# RC10027 F		C10027 FM
R.P.M.		3450
HORSEPOWER		1.20
IMPELLER DIAMETER		4 7/16"
ELECTRICAL/ VOLTS / PHASE		208V/3
FULL LOAD AMPS/ PER PUMP		4.3
PUMP DISCHARGE SIZE		2"

ELEVATIONS				
TOP OF WETWELL	123.98			
INLET INVERTS	116.82			
HIGH LEVEL ALARM (HLA)	116.00			
2nd PUMP ON (LAG)	115.50			
1st PUMP ON (LEAD)	115.00			
PUMPS OFF (OFF)	114.25			
BOTTOM OF WETWELL	111.98			
WETWELL DIAMETER	36" .			

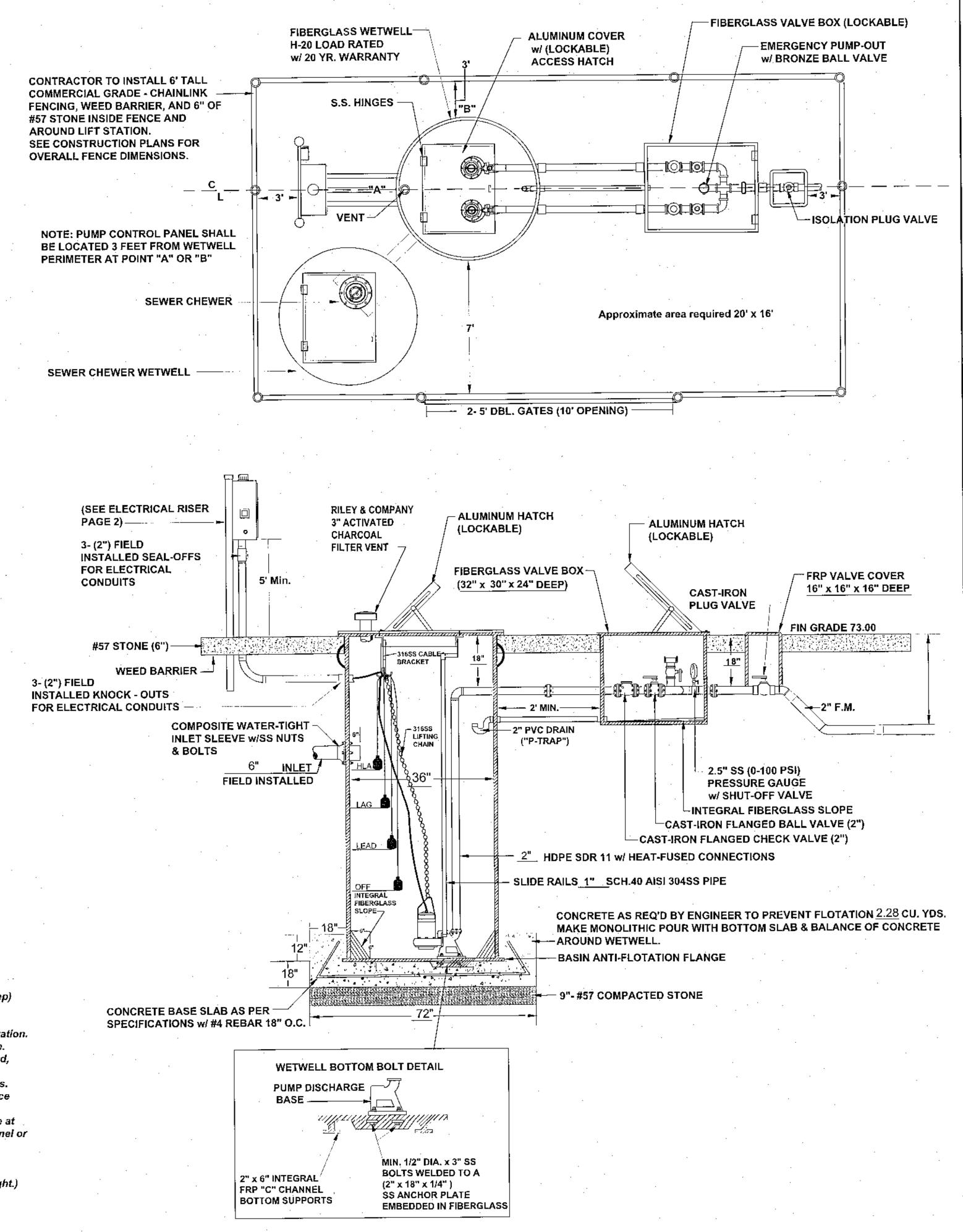


SEWER CHEWER: Protects downstream equipmentfrom being plugged or damagedfrom large solids, thus reducing expensive repairs and down time. Mechanical seal mounted on aseparate stainless steel sleeve for easy and quick replacement. Cutter cartridge consists of oneassembly for quick replacement. All fasteners, lifting chains, hinges, and appurtenances shall be made of AISI 316SS.

A 316SS slide/latch assembly shall be provided tor holding the doors open on the wetwell and valve box.

Slide rails shall be made of SCH.40 AISI 304SS pipe.

- 1. Water service with hose bibb and reduced pressure backflow preventer to be installed near lift station. (See Electrical Riser Illustration Page 2)
- 2. Control panel shall be NEMA 4X fiberglass enclosure (30" x 30" x10" Deep)
- 3. All wiring shall be copper and shall meet all NEC and manufacture's requirements
- 4. Control panel and top hatch shall be located above the 100 yr. flood elevation.
- Wetwell access cover, valve box, and control panel shall be pad lockable.
   Control panel shall have audible and visual alarm system, motor overload, and phase/voltage protection.
- 7. Electric service cable and conduit shall be sized per NEC and local codes.
- 8. System shall be operated and maintained to provide uninterrupted service as required by Chapter 62-604.500.
- 9. Approved Operation & Maintenance Manual(O&M) shall be kept available at a site acceptable to FDEP for use by operation and maintenance personnel or inspection by DEP personnel.
- 10. All fastners inside wetwell shall be stainless steel.
- 11. A weather resistant emergency contact sign shall be installed at the lift station and made visible to the public (Lettering shall be min. 2" in height.)



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## WAWA, INC. TYPICAL FLORIDA PUMP STATION DETAIL (Page 2 of 2) WAWA PREFERRED PRE-FABRICATED PUMP STATON VENDOR:

RILEY & Company, Inc. Sanford, FL 32773 (Ph. 407-265-9963)

**DUPLEX CONTROL PANEL: (3 YEAR WARRANTY)** 

To insure complete unit and warranty responsibility the electrical control panel must be manufactured and built by the pump supplier. The pump supplier must be a TUV (UL508A CERTIFIED) manufacturing facility, with a minuimum of 5 years history in the manufacturing of electrical control panels.

The Enclosure shall be NEMA 4X, minimum 30" high x 30" wide x 10" deep fiberglass with 5 point latching system.

The enclosure shall have external mounting feet to allow for wall mounting. The following components shall be mounted through the enclosure:

1- ea. Red Alarm Beacon (Light) 4" x 4" Minimum Diameter

1- ea. Alarm Horn (minimum 95 DCB) 1- ea. Generator Receptacle w/ weatherproof cover(SCM460 -UL 1686)

1- ea. Alarm Silence Pushbutton

The back panel shall be fabricated from .125, 5052-H32 marine alloy aluminum. All components shall be mounted by machined stainless steel screws.

The following components shall be mounted to back panel:

1- ea. RILEY & COMPANY GUARD PRO RTU MONITORING SYSTEM

2- ea. Motor Contactors

1- ea. Phase Monitor (3 Ph) w/2 N/O & 1 N/C Contacts

1- ea. Silence Relay Module

1- ea. Duplex Alternator w/ Pump Selector Switch

1- ea. Model RCBB5AH Battery Back-Up w/ Smart Charger For The High Level Alarm System

20- ea. Terminals For Field Connections

6- ea. Terminals For Motor Connections (Single Phase Only)

7- ea. Grounding Lugs

1- ea. Seal Failure Relay

The inner door shall be fabricated from .080, 5052-H32 marine alloy aluminum. The inner door shall have a continuous aluminum piano

The following components shall be mounted through the inner door:

1- ea. Main Circuit Breaker

1- ea. Emergency Circuit Breaker

1- ea. Mechanical Interlock For Emergency And Main Breakers (UL Listed)

2- ea. Short Circuit Protectors w/ Auxiliary Contacts

1- ea. Control Circuit Breaker

2- ea. Seal Failure Indicator Lights

1- ea. Hand-Off-Auto Selector Switches

2- ea. Pump Run Pilot Lights 1- ea. Power On Pilot Light

2- ea, Elapse Time Meters (Non-Resetable)

1- ea. GFI Duplex Convenience Outlet

REMOTE ALARM PANEL: (3 YEAR WARRANTY) Audio And Visual Alarm Panel w/ Alarm Silence Button FRP Enclosure (6" x 4" x 4" Deep)

MISCELLANEOUS: All wiring on the back panel shall be contained within the wiring duct. All wiring between the inner door and the back panel shall be contained with in a plastic spiral wrap. Each wire shall have a wire number at each end to correspond to the as built drawing for field troubleshooting.

The control panel must be manufactured in-house by lift station supplier and be a TUV (UL508A Cartified) facility-

FASTENERS & APPURTANCES: All fasteners, lifting chains, float cable bracket, hinges, and appurtenances shall be made of AISI

A 316SS slide/latch assembly shall be provided tor holding the doors open on the wetwell and valve box. Slide rails shall be made of SCH.40 AISI 304SS pipe.

Pump lifting chains shall be made of AISI 316\$S. Pump lifting bales shall be made of AISI 316S5.

#### COMPONENT SPECIFICATIONS:

All circuit breakers shall be molded thermal magnetic. The mechanical interlock shall prevent the normal and emergency main breakers being energized at the same

An emergency generator receptacle shall be supplied in accordance with DEP standards. The generator receptacle shall be adequately sized to meet the equipment operating conditions and shall meet IEC60309-1 & IEC6039-2 for interchange ability and compatibility.

NEUTRAL TO BE SUPPLIED FOR 208V 3PHASE

All motor short circuit protection devices must provide for under voltage release and class 10 overload protection and thermal protection on all phases. Visible trip indication, test, and reset capability

must be provided without opening inner door. Open frame, across the line, contactors shall be rated per IEC standards and properly sized per the motor requirements. Contactors shall provide for safe touch power and control

Lightning Arrestor shall meet UL1449 3rd Edition or exceed the requirements of ANSI/IEEE Std. C62.21-1984 section 8.6.1. and 8.7.3 shall be supplied by electrician and mounted on the bottom side of the switch disconnect ahead of the pump control panel.

Surge Protection shall be provided within the control panel and will meet the UL1449 3rd Edition Type 4, Type 2 locations and UL60691 for visual fault & indicator , replaceable Modules and remote signalization.

A voltage monitor shall be supplied for single phase service. A phase monitor shall be supplied for (3) phase service. A green pilot light shall be supplied for each motor. The pilot light shall illuminate each time the motor is called to run. Each pump shall have an Elapse Time Meter to record the accumulated run time. The ETM shall be 2" diameter, non-resettable, six digit, totally encapsulated unit. A Red pilot light shall be supplied for control power. The pilot light shall illuminate when the control power is available inside

the control panel. Relays shall be ice-cube plug in type. Relay contacts shall be rated 10 amp minimum, DPDT.

Twenty (20) terminals shall be supplied for field connections. The terminals shall be rated 25 amps minimum.

Each motors over-temperature contact shall be connected to the terminal strip and shall open a contact to de-energize the appropriate motor upon a high temperature within the motor. A 15 Amp GFI duplex receptacle shall be supplied and mounted on the innerdoor.

Ground lugs shall be supplied and appropriately sized for each motor and for service entrance.

## WAWA LIFT STATION REQUIREMENTS:

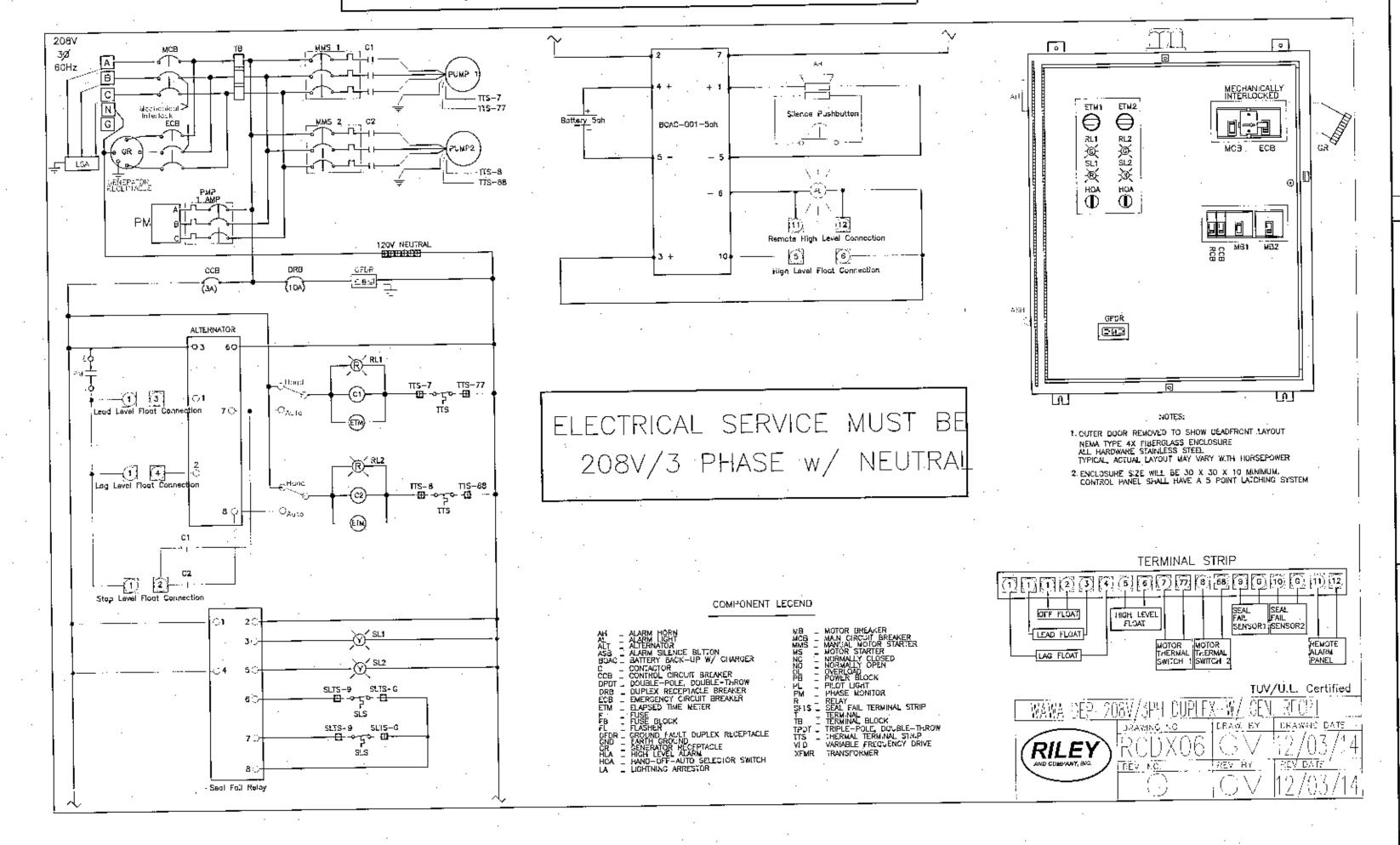
- 1. 2ND REMOTE ALARM TO BE CONNECTED TO MANAGER'S OFFICE CONTRACTOR SHALL COORDINATE WITH WAWA MAINTENANCE GROUP FOR CONNECTION DETAILS.
- 2. VFD'S SHALL BE USED TO CONVERT SINGLE PHASE INCOMING POWER TO THREE PHASE TO POWER PUMPS. START/RUN CAPACITORS WILL NOT BE USED TO START PUMPS.
- 3. FORCE MAIN PIPE SIZE SHALL BE A MINIMUM OF 2-INCH. PIPE MATERIAL SHALL BE AS PER THE LOCAL JURISDICTION.
- 4. ELECTRICIAN NOTE: 3/4" CONDUIT FROM CONTROL PANEL TO MANAGER'S OFFICE INSIDE BUILDING

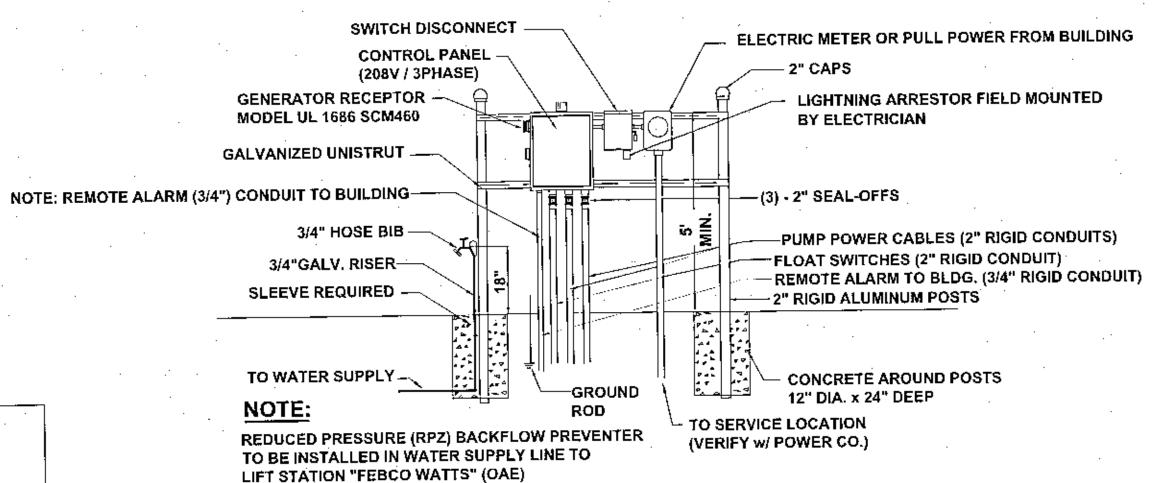
## \* ELECTRICIAN NOTES:

- 1. DRAWING NOT TO SCALE
- \* 2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES
- \* 3. ELECTRICIAN SHALL SEAL OFF CONDUIT RUNS
- \* 4. ELECTRICIAN TO MOUNT LIGHTNING ARRESTOR AT SWITCH DISCONNECT
- \* 5. CONTRACTOR SHALL VERIFY POWER SOURCE PRIOR TO ORDERING EQUIPMENT
- 6. NEUTRAL TO BE SUPPLIED FOR 208V-3 PHASE POWER.
- 7. ELECTRICIAN MUST RUN WIRING AND CONDUIT FROM LIFT STATION CONTROL PANEL TO REMOTE AUDIO & VISUAL ALARM PANEL INSIDE BUILDING.

## BATTERY BACK-UP FOR AUDIO AND VISUAL ALARMS, & RILEY & COMPANY GUARD PROIII RTU MONITORING SYSTEM

RILEY & COMPANY GUARD PRO III: Offers a remote control and maintenance solution which allows you to create a decentralised system or monitor and control devices. Changes to the eight (8) digital (24V DC) analogue (0-10V) inputs can be notified via SMS text message, e-mail or both. The digital outputs can be contolled via SMS text message. The built-in maintenance free supercap capacitor enables the GUARD PRO III to inform the recipient via SMS text message in the event of a power failure.





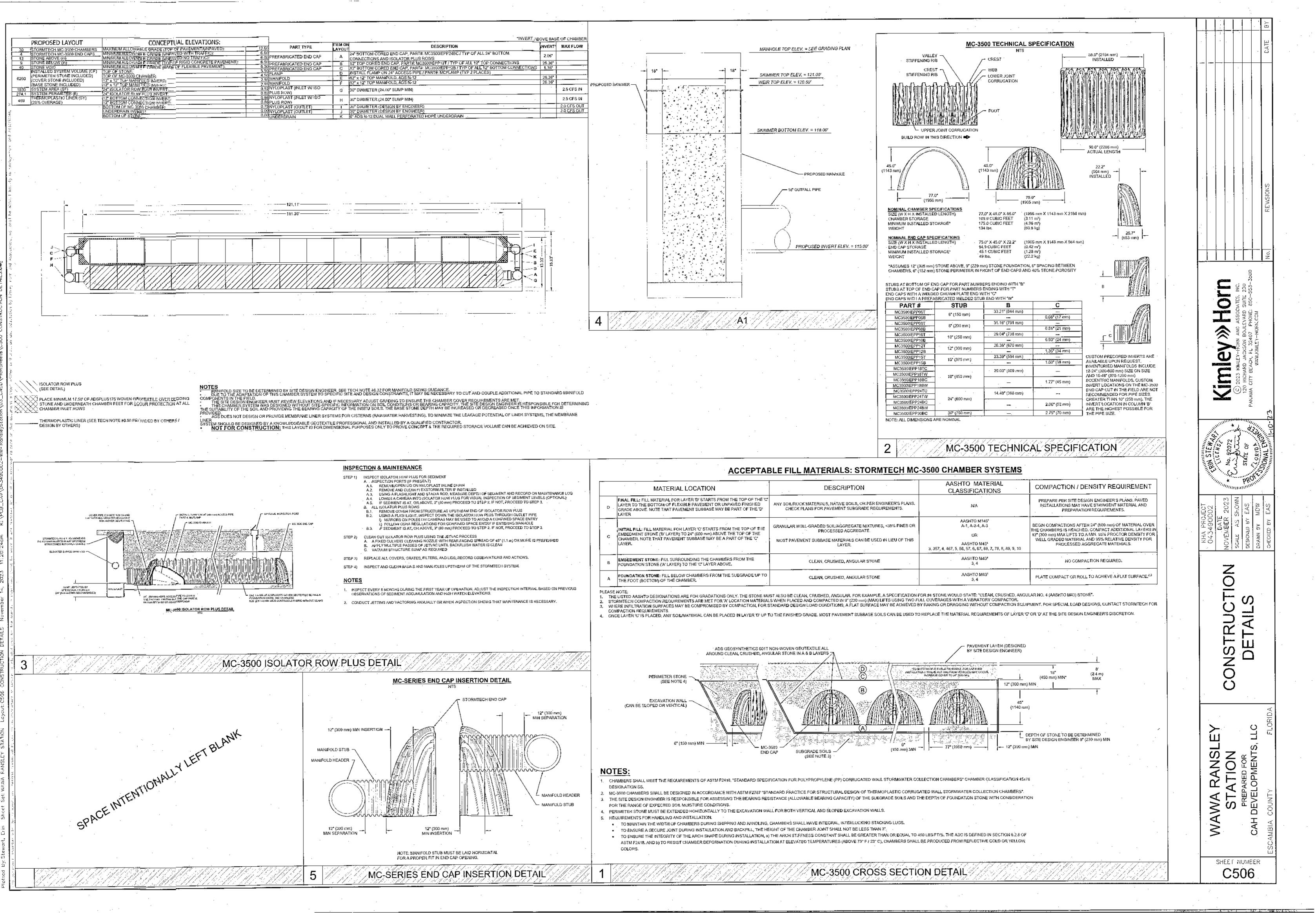
**ELECTRICAL RISER FOR ILLUSTRATION PURPOSES ONLY** 

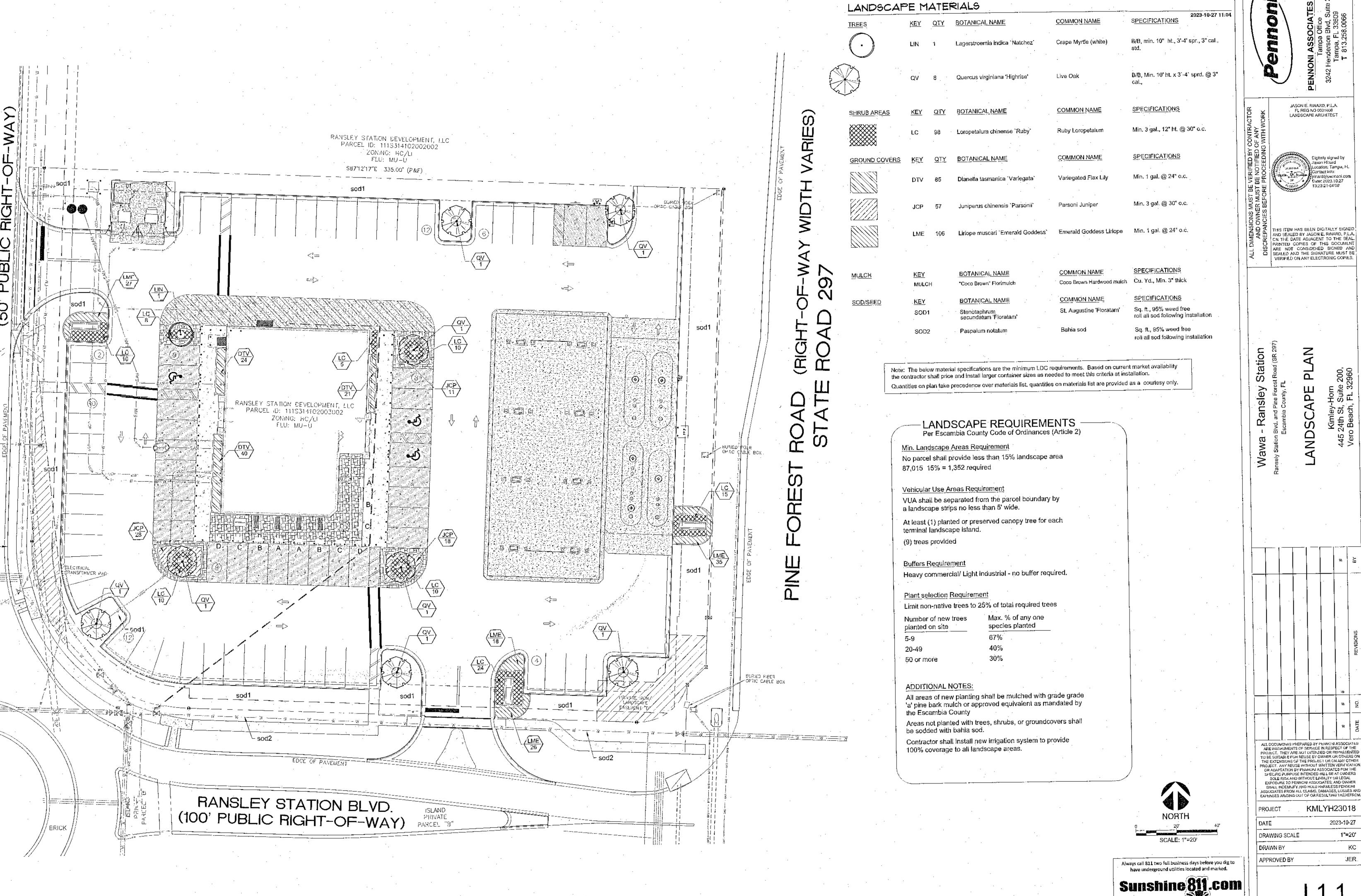
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JASON E. RINARD, P.LA. FL REG NO 0001608 LANDSCAPE ARCHITECT Contact into.

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| Contact into. THIS ITEM HAS BEEN DIGITALLY SIGNED, AND SEALED BY JASON E. RINARD, P.L.A. ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

KMLYH23018

2023-10-27

1"=20"

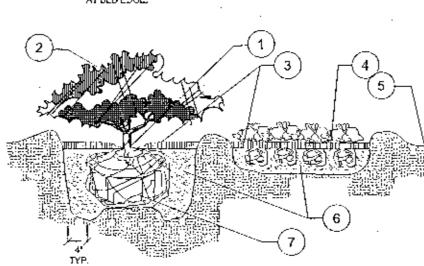
- 1. TOP OF SHRUB ROOTBALLS TO BE PLANTED 1" 2" HIGH WITH SOIL MOUNDING UP TO THE TOP OF ROOTBALL. PRUNE ALL SHRUBS TO ACHLEVE A UNIFORM MASS/HEIGHT.
- 3" MINIMUM MULCH AS SPECIFIED. EXCAVATE ENTIRE BED SPECIFIED FOR GROUNDCOVER BED.
- FINISHED GRADE (SEE GRADING PLAN). PREPARED PLANTING SOIL AS SPECIFIED, (SEE LANDSCAPE NOTES) NOTE: WHEN GROUND-COVERS AND SHRUBS USED IN MASSES. ENTIRE BED TO BE AMENDED WITH PLANTING SOIL MIX AS SPECIFIED.

\$CARIFY ROOTBALL SIDES AND BOTTOM.

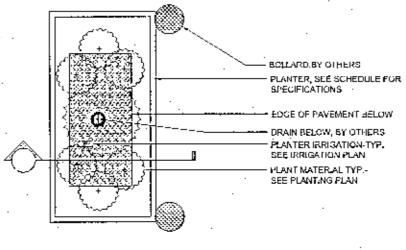
GROUNDCOVER TO FACE FRONT OF PLANTING BED. REFER TO PLANT -SCHEDULE FOR SPACING.

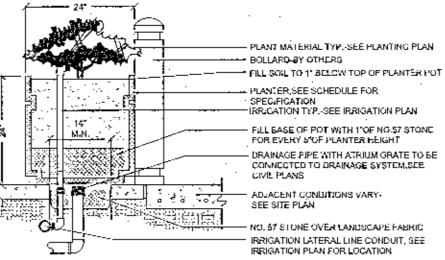
MAINTAIN 12" DEAD ZONE -AT BED EDGE.

BEST FACE OF SHRUB/-



SHRUB/GROUNDCOVER PLANTING





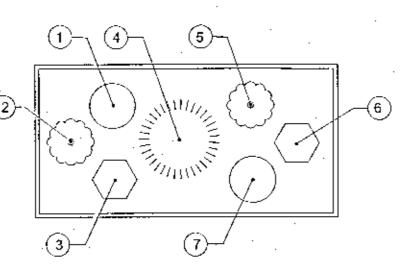
3) TYPICAL RAISED PLANTER DETAIL SCALE: NTS



BOULEVARD SERIES PLANTER BY ALLIED MOLDED PRODUCTS, 11C. MODELS: # 1RECLP-482424 / # 1SLP-2425 COLOR: DC-35 PURE WHITE FINISH: FEATHER-LITE STONE 100

## — GENERAL LANDSCAPE NOTES:

- 1. All plant materials shall be allye and in a healthy condition. Plant materials shall conform to the standards of the most recent edition of the "American Standard for Nursery Stock," published by the American Association of Nurserymen,
- 2. All shrubs shall be a minimum of 12" high at the time of planting and spaced no greater than 30" on center. Shrubs shall not adversely impact existing tree root systems and shall be field adjusted if necessary.
- 3. All required native deciduous trees shall be a minimum 3" trunk caliper and all large evergreen trees shall be minimum 5' height, at the time of planting. Adjust tree locations as necessary to avoid utilities, obstructions, etc. see materials list for exact specifications.
- 4. All required trees shall be located a minimum of 5 feet from impervious surfaces, all shrubs 2 feet.
- 5. All plant material will be hand watered via water truck or acceptable means (approved by the owner) to maintain a healthy manner.
- 6. The contractor shall sed all disturbed areas. All planting shall be mulched to a 3" minimum depth.
- 7. The contractor shall be responsible for the clean up of premises and removal of all discarded and surplus materials, and rubbish.
- 8. Verify the locations of existing trees, lawns, and shrubs. Remove extraneous materials such as rocks, branches, building materials or unacceptable soils prior to planting sod, trees, and shrubs, where encountered.
- 9. Contractor shall become acquainted with the related paving, site grading , and all utilities (including water, sewer, and electrical supply) to preclude any misunderstandings and ensure a trouble free installation.
- 10. The exact location of all existing structures, underground utilities, and pipes may not be as indicated on drawings; the contractor shall determine the location of these items and shall conduct his work in a manner to prevent interruption or damage to existing systems which must remain operational. The contractor shall protect existing structures and utility services which must remain operational and shall be responsible for their replacement if damaged by him.
- 11. Contractor shall call Florida State One-Call at least 48 hours prior to digging.
- 12. Quantities on plan take precedence over materials list. Quantities on materials list are provided as a
- 13. All landscape material shall be maintained in perpetuity to provided all required local site clearance distances for vehicles.



#### PLANTER LAYOUT "A"

WARM SEASON

1, YELLOW TALL MARIGOLD 2.PINK PORTULAÇA 3.ORANGE ZINNIA 4.DWARF WHITE FOUNTAIN GRASS 5.PINK PENTAS S.ORANGE PLUME CELOSIA 7.YELLOW DAHLBERG DAISY

COOL SEASON

1.ORANGE TALL SNAPDRAGON 2.YELLOW PANSY 3.WHITE ALYSSUM 4.DWARF WHITE FOUNTAIN GRASS 5.YELLOW CALENDULA 6.RED PETUNIA

1.BLACK-EYED SUSAN 2,PINK BEGONIA 3.RED SALVIA 4,0WARF WHITE FOUNTAIN GRASS 5.WHITE PENTAS 6.0RANGE PLUME CELOSIA 7.PINK BEGONIA

WARM SEASON

COOL SEASON

1.P.NK TALL SNAPDRAGON 2.YELLOW CALEDULA 3.RED PANSY 4.DWARF WHITE FOUNTAIN GRASS 5.YELLOW PANSY 6.PINK PETUNIA 7.SHASTA DAISY

PLANTER LAYOUT "B"

## PLANTER LAYOUT "C"

5.RED PENTAS 6.PINK PORTULAÇA 7.WHITE BEGONIA

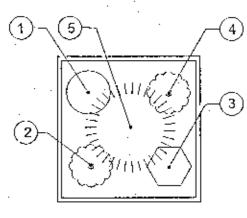
COOL SEASON

7.PINK DIANTHUS

1.YELLOW TALL SNAPDRAGON 2.WHITE CANDYTUFT 3.PINK ALYSSUM 4.DWARF WHITE FOUNTAIN GRASS 5.YELLOW PANSY 6.WHITE PETUNIA

WARM SEASON

1.YELLOW TALL MARIGOLD 2.PINK PORTULAÇA 3.GRANGE ZINNIA 4.PINK PENTAS 5.DWARF WHITE FOUNTAIN GRASS



## PLANTER LAYOUT "D"

COOL SEASON

Always call 811 two full business days before you dig to have underground utilities located and marked.

Sunshine 811.com

1.PINK TALL SNAPDRAGON 2.YELLOW CALENDULA 3.RED PANSY 4.YELLOW PANSY 5.DWARF WHITE FOUNTAIN GRASS

> ALL DOCUMENTS PREPARED BY PENNONLASSOCIATES. ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT, THEY ARE NOT INTENDED OR REPRESENTED TO DE SUITABLE FOR REUSE BY OWNER OR OTHERS ON THE EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIADILITY OR LEGAL EXPOSURE TO PENNONLASSOCIATES; AND OWNER, SHALL INDEMNIFY AVD HOLD HARMLESS PENNON! ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEHERROM.

JAŞON E. RINARD, P.L.A,

FLIREGINO 0001808 LANDSCAPE ARCHITECT

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY JASON E. RINARD, P.L.A.

ON THE DATE ADJACENT TO THE SEAL

PRINTED, COPIES OF THIS DOCUMEN

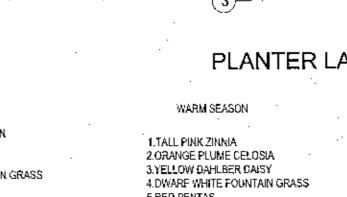
ARE NOT CONSIDERED SIGNED AN

SEALED AND THE SIGNATURE MUST B VERIFIED ON ANY ELECTRONIC COPIES

PROJECT KMLYH23018 2023-10-27 DRAWING SCALE 11"=20" DRAWN BY KC APPROVED BY JER

RAISED PLANTER PLANTING LAYOUT

NOTE: CONTRACTOR TO VERIFY SEASONAL AVAILABILITY AT THE TIME OF INSTALLATION.



Work shall include landscape maintenance and watering of all contract planting areas until certification of acceptance by the Owner.

#### 1.02 DEFINITIONS

- A. "Contractor" shall mean the Landscape or legigation Contractor that has been sub- contracted to install the imagation system by Wawa, Inc. or the Owner's Representative,
- "Landscape Maintenance Contractor" shall mean the Landscape or Imgation Contractor that has been sub- contracted to maintain the irrigation system by the Wawa Representative.
- "Documents" shall mean Imigation Drawings, Notes, Details and the attached specifications
- "Final Acceptance" shall mean that point in time when all requirements of the Irrigation Drawings and Specifications are completed, including any punch-list items, to the satisfaction of Wawa, Inc. or the Owner's Representative. The Contractor shall be notified in writing of Final Acceptance by the Wawa
- representative. ் "Warranty Period" shall begin upon issueபார மீ (be Final Acceptance and shall be for a period of twelve (12) months. At the end of the Warranty Period, the Wawa representative shall request an inspection five (5) days in advance with the Contractor to release the Contractor from any future warranty work.
- "Substitutions" -wherever brand names are used in these: specifications, use only the brand specified. Make on substitutions as a part of this bid package.

#### 1.03 CONTRACTOR QUALIFICATIONS

The bidding CONTRACTOR shall possess a valid CONTRACTOR's license as issued by the local or state government and aboit include their license number on the enclosed bid form.

#### 1.04 JOB SUPERVISION

The CONTRACTOR must designate a qualified full time on-site superintendent to oversee the project for the entity phase of the installation. The superintendent shall have the authority to represent the CONTRACTOR in his absence and all directives given to him shall be as binding as if given directly to the CONTRAGULAR

#### 1,04 GUARANTEE

The CONTRACTOR shall guarantee all plant majerials and workmanship for a period of one year from data กับ กับสป project. acceptance.

#### 1.05 RECORD DRAWINGS

The CONTRACTOR shall keep one record copy of all Spacehidations, Drawings, Addenda, Modifications, and Shop Drawings at the site in good order and clearly annotated to show all changes made during the construction process. These documents shall ha nynlinkis to the owner at all times and shall be delivered to the unities upon completion of the project.

#### 1.06 PROTECTION OF EXISTING STRUCTURES

All existing buildings, walks, walls, paving, piping, after site construction items, and planting already completed or established and designated to remain shall be protected from damage by the CONTRACTOR unless otherwise specified. All damage resulting from negligence shall be repaired or replaced to the satisfaction of the owner, at ne sest to the

The CONTRACTOR shall be responsible for locating all utilities, whether public or private, prior to excavation. The information and data shown with respect to existing underground facilities at or appeintenances. observed in the field. The owner and design professional shall not be responsible for the accuracy and completeness of any such information. or data. The CONTRACTOR shall have full reaponsibility for; reviewing and checking all such information and data; locating all underground facilities during construction; the safety and prolection thereof; repairing any damage thereto resulting from the work. The sest of all will be considered as having been included in the contrast price. The CONTRACTOR shall notify any affected utility oggrepances in

#### writing at least 48 hours prior to beginning construction. 1.07 PROTECTION OF EXISTING PLANT MATERIALS

The CONTRACTOR shall be responsible for all unguitherized suiting or damage to trees and shrubs existing or otherwise, caused by careless. equipment operation, material stockpiling, etc. This shall include compaction by driving or parking inside the drip-line and spilling all. gasoline, or other deleterious materials within the drip-line. No materials shall be burned on site.

Existing trees killed or damaged so that they are misshapen and/or unsigntly shall be replaced at the cost to the CCNTRACTOR of three hundred dollars (\$300) per caliper inch on an essellating scale which adds an additional twenty (20) percent per inch ever four (4) inches caliner as fixed and agreed liquidated damages. Caliner shall be measured six (6) inches above ground level for frees up to and including four (4) inches in caliper and twelve (12) inches anove ground level for trees over four (4) inches in caliper. See tree milligation plan and notes, if applicable.

## 1.08 PERMITS AND FEES

It is the CONTRACTOR's responsibility to obtain all permits and pay all fees associated with the installation of the proposed plant materials.

#### 2.00 MATERIALS

#### 2.01 PLANT MATERIALS

Plant species and size shall conform to those indigated on the drawings. All nursery stock shall be in accordance with grades and standards for nursery plants, latest edition, published by the Finitial department of Agriculture and Consumer Services. All plants shall be Florida Grade No. ் 1 or better as determined by the Florida Division of plant industry. All plants shall be healthy, vigorous, sound, well-branched, and tree of disease and insects, insect eggs and larvae shall have adequate root systems. Trees for planting in rows shall be uniform in size and shape. All materials shall be subject to approval by the নুমুন্তুর, Where any requirements are omitted from the plant list, the glants furnished shall be normal for the variety. Plants shall be pruned prior to delivery only with approval from owner or owner's representative. No substitutions shall be made without written permission from the owner's representative-

Measurements: the height and/or width of trees shall be measured from the ground or across the normal spread of branches with the plants in their normal position. This measurement shall not include the immediate terminal growth. Plants larger in size than those specified in the plant list may be used if approved by the owner. If the use of larger plants is approved, the ball of earth or spread of roots shall be increased in proportion to the size of the plant.

Inspection: plants shall be subject to inspection and approval at the place of growth, or upon delivery to the site, as determined by the owner, for quality, size, and variety. Such approval shall not impair the right of inspection and rejection at the site during progress of the work or after completion for size and condition of root balls or roots, latent defects, or injuries. Rejected plants shall be removed immediately from the site. Notice requesting inspection shall be submitted in writing by the CONTRACTOR at least one (1) week prior to anticipated date.

Material samples listed below shall be submitted for approval, on site or as determined by the OWNER. Upon approval, delivery of materials may commence.

	•	
laterial	Sample	
ize		
lulch	One (1) Cubic Foot	
opsoil Mix	One (1) Cubic Foot	
lants	One (1) of Each Variety (or	

#### 2.02 SOIL MIXTURE

tagged in nursery)

CONTRACTOR shall test existing soil and amend as necessary in accordance with the guidelines below:

- Soil Mixture (planting medium for plant pits) shall consist of two parts of topsoil and one-part sand, as described below. CONTRACTOR to submit samples and PH testing results of soil mixture for Owner's Representative approval prior to plant installation operations commence.
- Topsoil for use in preparing soil mixture for backfilling plant pits shall be fertile, friable, and of a loamy character; reasonably free of subsoil, clay lumps, brush weeds and other litter; free of roots, stumps, stones larger than 2" in any direction, and other extraneous or toxic matter harmful to plant growth. It shall contain three (3) to five (5) percent decomposed organic matter and have a PH between 5.5 and 7.0.
- Sand shall be coarse, clean, well-draining, native sand.

Trees shall be planted in the existing native soil on site, unless determined to be unsuitable - at which point the CONTRACTOR shall contact owner's representative to discuss alternate recommendation prior to planting.

#### **2.03 WATER**

Water necessary for planting and maintenance shall be of satisfactory quality to sustain adequate plant growth and shall not contain harmful, natural, or manufactured elements detrimental to plants. Water meeting the above standard shall be obtained on the site from the owner, if available, and the CONTRACTOR shall be responsible to make arrangements for its use by his tanks, hoses, sprinklers, etc. If such water is not available at the site, the CONTRACTOR shall provide satisfactory water from sources off the site at no additional cost to the owner. Watering/irrigation restrictions may apply - refer to property's jurisdictional authority.

The CONTRACTOR shall provide treegator watering bags for all palms and trees throughout the warranty period if permanent or temporary irrigation system is not available. Watering/irrigation restrictions may apply - refer to property's jurisdictional authority. See Appendix A- Figure

### 2.04 FERTILIZER

CONTRACTOR shall provide fertilizer application schedule to owner, as applicable to soil type, plant installation type, and sile's proposed use. Suggested fertilizer types shall be organic or otherwise naturally-derived.

Fertilizer restrictions may apply - refer to property's jurisdictional

#### 2.05 MULCH

Mulch material shall be double-ground, hardwood mulch applied at a minimum depth of three (3) inches. Clear mulch from each plant's crown (base). Mulch shall be "florimulch," eucalyptus mulch, or similar sustainably harvested hardwood mulch unless specified otherwise.

#### 2.06 DIGGING AND HANDLING

Protect roots or root balls of plants at all times from sun, drying winds, water and freezing, as necessary until planting. Plant materials shall be adequately packed to prevent damage during transit. Trees transported more than ten (10) miles or which are not planted within three (3) days of delivery to the site shall be sprayed with an anti-transpirant product ("wiltpruf" or equal) to minimize transpirational water loss.

Balled and Burlapped (B&B), and field grown (FG) plants shall be dug with firm, natural balls of soil of sufficient size to encompass the fibrous and feeding roots of the plants. No plants moved with a root ball shall be planted if the ball is cracked or broken. Plants shall not be handled by

Plants marked "BR" in the plant list shall be dug with bare roots. Care shall be exercised that the roots do not dry out during transportation and prior to planting.

Protection of palms; only a minimum of fronds shall be removed from the crown of the palm trees to facilitate moving and handling. Clear trunk (CT) shall be as specified after the minimum of fronds have been removed. All palms shall be braced per palm planting detail.

Excavation of tree pits shall be performed using extreme care to avoid damage to surface and subsurface elements such as utilities or hardscape elements, footers and prepared sub-bases.

#### 2.07 CONTAINER GROWN STOCK

All container grown material shall be healthy, vigorous, well-rooted plants established in the container in which they are sold. The plants shall have tops which are of good quality and are in a healthy growing

An established container grown plant shall be transplanted into a container and grown in that container sufficiently long enough for the new librous roots to have developed so that the root mass will retain its shape and hold together when removed from the container. Container grown stock shall not be handled by their stems.

Root bound plants are not acceptable and will be rejected.

RPG = "roots plus grower" container products shall be used where specified.

#### 2.08 COLLECTED STOCK

When the use of collected stock is permitted as indicated by the owner or owner's representative, the minimum sizes of root balls shall be equal. to that specified for the next larger size of nursery grown stock of the

#### 2.09 NATIVE STOCK

Plants collected from wild or native stands shall be considered nursery grown when they have been successfully re-established in a nursery row and grown under regular nursery cultural practices for a minimum of two (2) growing seasons and have attained adequate root and top growth to indicate full recovery from transplanting into the nursery row.

#### 2.10 MATERIALS LIST

Quantities necessary to complete the work on the drawings shall be furnished by the CONTRACTOR.

Quantity estimates have been made carefully, but the Landscape Architect or owner assumes no liability for omissions or errors, Should a discrepancy occur between the plans and the plant list quantity, the owner's representative shall be notified for clarification prior to bidding or installation. All dimensions and/or sizes specified shall be the minimum acceptable size.

#### 2.11 FINE GRADING

Fine grading under this contract shall consist of final finished grading of lawn and planting areas that have been rough graded by others. Berming as shown on the drawings shall be the responsibility of the CONTRACTOR, unless otherwise noted.

The CONTRACTOR shall fine grade the lawn and planting areas to bring the rough grade up to final finished grade allowing for thickness of sod and/or mulch depth. CONTRACTOR shall fine grade by hand and/or with all equipment necessary including a grading tractor with front-end loader for transporting soil within the site.

All planting areas shall be graded and maintained for positive drainage to surface/subsurface storm drain systems. Areas adjacent to buildings shall slope away from the buildings. Refer to the Civil Engineer's plans for final grades, if applicable.

#### 2.12 PLANTING PROCEDURES

Cleaning up before commencing work: the CONTRACTOR shall clean work and surrounding areas of all rubbish or objectionable matter daily. All mortar, cement, and toxic material shall be removed from the surface. of all plant beds. These materials shall not be mixed with the soil. Should the CONTRACTOR find such soil conditions beneath the soil which will in any way adversely affect the plant growth, he shall immediately call it to the attention of the owner's representative. Failure to do so before planting shall make the corrective measures the responsibility of the CONTRACTOR.

Verify locations of all utilities, conduits, supply lines and cables, including but not limited to:

Electric, Gas (lines and tanks), Water, Sanitary Sewer, Storm Water Systems, Cable, and Telephone.

Properly maintain and protect existing utilities. Call Sunshine State One Call of Florida, Inc. (811) to locate utilities

at least 48 hours prior to construction.

Subgrade excavation: CONTRACTOR is responsible to remove all existing and imported Limerock and Limerock sub-base from all landscape planting areas to a minimum depth of 36" or to native soil, CONTRACTOR is responsible to backfill these planting areas to rough finished grade with clean topsoil from an on-site source or an imported source, if Limerock or other adverse conditions occur in planted areas after 36" deep excavation by the CONTRACTOR, and positive drainage cannot be achieved, CONTRACTOR shall utilize poor drainage condition

- planting detail. A. Furnish nursery's certificate of compliance with all requirements as specified herein. Inspect and select plant materials before
- plants are dug at nursery or growing site. Comply with applicable federal, state, county, and local regulations governing landscapo materials and work. Conform to accepted horticultural practices as used in the trade. Upon arrival at the site, plants shall be thoroughly watered and properly maintained until planted. Plants stored onsite shall not remain unplanted or appropriately healed in for a period exceeding Twenty-Four (24) Hours. At all times skillful methods customary in good horticultural practices shall be exercised.
- C. The work shall be coordinated with other trades to prevent conflicts. Coordinate planting with irrigation work to assure availability of water and proper location of irrigation appurtenances and plants.
- All planting pits shall be excavated to size and depth in accordance with the USA standard for Nursery Slock 260.1, unless shown otherwise on the drawings, and back filled with the prepared planting soil mixture as specified in Section E. Test all tree pits with water before planting to assure proper drainage percolation is available. No allowance will be made for lost plants due to improper drainage. If poor drainage exists, utilize "poor drainage condition" planting detail. Trees shall be set plumb and held in position until the planting mixture has been flushed into place with a slow, full hose stream. All planting shall be performed by personnel familiar with planting procedures and under the supervision of a qualified landscape foreman. Proper "jetting in" shall be assured to eliminate air pockets around the roots. "jet stick" or equal is recommended.
- Take all necessary precautions to avoid damage to buildings and building structures while installing trees. F. Soil mixture shall be as specified in Section E of these
- specifications. G. Trees and shrubs shall be set straight at an elevation that, after settlement, the plant crown will stand One (1) to Two (2) inches
- above grade. Each plant shall be set in the center of the pit. Planting soil mixture shall be back filled, thoroughly tamped around the batt, and settled by water (after tamping). H. Amend pine and oak plant pits with ectomycorrhizal soil application per manufacturer's recommendation. All other plant pits shall be amended with endomycomhizal soil application per

manufacturer's recommendation. Provide product information

- submittal prior to inoculation. Fill hole with soil mixture, making certain all soil is saturated. To do this, fill hole with water and allow to soak minimum twenty (20) minutes, stirring if necessary to get soil thoroughly wet. Pack lightly with feet, add more wet soil mixture. Do not cover lop of ball with soil mixture. Att burlap, rope, wires, baskets, etc..., shall be removed from the sides and tops of balls, but no buriap shall be
- pulled from underneath. Trees shall be pruned, at the direction of the owner or owner's representative, to preserve the natural character of the plant. All soft wood or sucker growth and all broken or badly damaged branches shall be removed with a clean cut. All pruning to be

performed by certified arborist, in accordance with ANSI a-300.

- K. Shrubs and ground cover plants shall be evenly spaced in accordance with the drawings and as indicated on the plant list. Materials installed shall meet minimum specimen requirements or quantities show on plans, whichever is greater. Cultivate atl planting areas to a minimum depth of 6", remove and dispose all debris. Mix top 4" the planting soil mixture as specified in Section E. Thoroughly water all plants after installation.
- . Tree guying and bracing shall be installed by the CONTRACTOR in accordance with the plans to insure stability and maintain trees in an upright position. If the CONTRACTOR and owner decide to waive the tree guying and bracing, the owner shall notify the project landscape architect in writing and agree to indemnify and hold harmless the project landscape architect in the event unsupported trees planted under this contract fall and damage person or property.
- M. All plant beds shall be kept free of noxious woeds until final. acceptance of work, if directed by the owner, "round-up" shall be applied for weed control by qualified personnel to all planting areas in spot applications per manufacturer's precautions and specifications. Prior to final inspection, treat all planting beds with an approved pre-emergent herbicide at an application rate recommended by the manufacturer. (As allowed by jurisdictional
- N. Planting behind perpendicular parking is to be located a minimum. of 5' behind the curb line, where possible.
- O. All landscape and grass areas are to be hand raked and left clear of all stones, rock, construction debris and any unsuitable
- P. The CONTRACTOR shall supply and install a minimum 5' wide stone mulch bed with weed barrier and aluminum edging, in planting areas adjacent to underground gas storage tanks. The stone mulch bed shall be delineated with 5 1/2" aluminum landscape edging, staked at 3' intervals. Aluminum edging is to be Cleanline 3/16" x 5 1/2" x 16' by Permaloc. See Appendix A-. Figure No. 2. Weed barrier shall be 2 oz. spunbound filter fabric by Fabriscape, Inc. or approved equal. See Appendix A- Figure No. 3. All weed barrier will be overlapped a minimum of 6" at all seams. Weed barrier shall not be visible in areas designated for stone mulch. When stone is called for adjacent to curb or sidewalks, it shall be feathered down to curb level from a distance 24" from the curb. Stone mulch shall be 1"- 3" brown river rock applied a minimum 3" thick in all designated areas. See Appendix A- Figure No. 5.
- All areas to be covered with stone mulch shall be treated with a pre-emergence herbicide (surflan, dactal or approved equal) in accordance with applicable federal and state regulations and the manufacturer's instructions.

#### 2.13 LAWN SODDING

- The work consists of lawn bod preparation, soil Preparation, and sodding complete, in strict accordance with the specifications and the applicable drawings to produce a turf grass lawn acceptable to
- All areas that are to be sodded within the Wawa property line shall be certified 'Empire' Zoysia turf (Zoysia japonica) or St. Augustina grass 'Floratam' (Stenotaphrum secundalum. All areas that are to be sudded outside of the Wawa property line (right-of-way) and stormwater retention ponds and swales shall be 'Argentine' Bahia turf (Paspalum notatum). See Landscape Plans for locations.
- C. All areas that are to be sodded shall be cleared of any rough. rass, weeds, and debris by means of a sod cutter to a depth of three (3) inches, and the ground brought to an even grade. The entire surface shall be rolled with a roller weighing not more than one-hundred (100) pounds per foot of width. During the rolling, all depressions caused by settlement shall be filled with additional soil, and the surface shall be regraded and rolled until presenting a smooth and even finish to the required grade.
- Prepare loose bed four (4) inches deep. Hand rake until all bumps and depressions are removed. Wet prepared area thoroughly.
- 1. The CONTRACTOR shall sod all areas that are not paved or planted as designated on the drawings within the contract limits, unless specifically noted otherwise.
  - 2. The sod shall be certified to meet Florida State Plant Board Specifications, true to varietal type, and free from weeds, fungus, insects, and disease of any kind. 3. Sod panels shall be laid tightly together to make a solid sodded
- lawn area. Sod shall be laid uniformly against the edges of all curbs and other hardscape elements, paved and planted areas. Adjacent to buildings, a 24-inch stone mutch strip shall be provided. Immediately following sod laying, the lawn areas shall be rolled with a lawn roller customarily used for such purposes, and then thoroughly irrigated. If, in the opinion of the owner, top-dressing is necessary after rolling to fill the voids between the sod panels and to even out inconsistencies in the sod, clean sand, as approved by the owner's representative, shall be uniformly spread over the entire surface of the sod and thoroughly watered in. Fertilize installed sod as allowed by property's jurisdictional authority.
- During delivery, prior to, and during the planting of the lawn areas, the sod panels shall always be protected from excessive drying and unnecessary exposure of the roots to the sun. All sod shall be stacked so as not to be damaged by sweating or excessive
- heat and moisture. Lawn Maintenance
  - 1. Within the contract limits, the CONTRACTOR shall produce a dense, well established lawn. The CONTRACTOR shall be responsible for the repair and re-sodding of all eroded, sunken, or bare spots (larger than 12"x12") until certification of acceptance by the owner's representative. Repaired sodding shall be accomplished as in the original work (including regrading if necessary).
- CONTRACTOR responsible for establishing and maintaining sod/tawn until acceptance by the owner's representative. Prior to and upon acceptance, CONTRACTOR to provide watering/irrigation schedule to owner. Observe all applicable watering restrictions as set forth by the property's jurisdictional authority.

#### 2.14 CLEANUP

Upon completion of all planting work and before final acceptance, the CONTRACTOR shall remove all material, equipment, and debris resulting from his work. All paved areas shall be cleaned, and the site left in a neat and acceptable condition as approved by the owner's representative.

#### 2.15 FINAL INSPECTION AND ACCEPTANCE OF WORK

All plants and planting included under this contract shall be maintained by watering, cultivating, spraying, and all other operations (such as re-staking or repairing guy supports) necessary to insure a healthy plant condition by the CONTRACTOR until certification of acceptance by the owner's representative.

Final inspection at the end of the warranty period shall be on planting. construction and all other incidental work pertaining to this contract. Any replacement at this time shall be subject to the same One (1) Year Warranty (or as specified by the Landscape Architect or owner in writing) beginning with the time of replacement and ending with the same inspection and acceptance herein described.

#### 2.16 WARRANTY

- The life and satisfactory condition of all plant material installed (including sod) by the landscape CONTRACTOR shall be warranted by the CONTRACTOR for a minimum of One (1) calendar year commencing at the time of certification of acceptance by the owner's representative.
- Any plant not found in a healthy growing condition at the end of the warranty period shall be removed from the site and replaced as soon as weather conditions permit. All replacements shall be plants of the same kind and size as specified in the plant list. They shall be furnished planted and mulched as specified at no additional cost to the owner.
- Lawns that are not in good condition at the end of the guarantee period shall be repaired until a good lawn results. It is understood that the Owner shall assume responsibility for watering all plant material and lawn area beginning with the date of substantial completeness.
- In the event the owner does not contract with the CONTRACTOR for landscape and irrigation maintenance, the CONTRACTOR should visit the project site periodically during the One (1) Year Warranty period to evaluate maintenance procedures being performed by the owner. CONTRACTOR shall notify the owner in writing of maintenance procedures or conditions which threaten vigorous and healthy plant growth. Site visits shall be conducted a minimum of once per month for a period of Twelve (12) Months from the date of acceptance.

#### 3.00 RAISED PLANTERS

#### 3.01 ANNUAL/ PERENNIAL SELECTION

The nature and purpose of the raised planters is to draw attention to the store and to the outdoor seating areas. The highest level of attention should be placed on their on-going care. All annual flowers shall be a minimum 4" pot size and all perennial flowers shall be a minimum 1 gallon pot size. Choose compact plants with healthy, unblemished leaves, good green color, and lots of flower buds. It is not necessary that they be in bloom at the time of installation. Combinations of several flower colors and plant forms are appropriate for a "cottage garden" raised planter look.

In Florida, most annuals only last one season and are divided into two types; warm season and cool season. Warm-season (tender) алпиаls are damaged by frosts or freezes and should be planted after the last frost date- typically March 15 for North Florida and February15 for Central Florida, frosts and freezes are rare in South Florida, Cool-scason (hardy) annuals are intolerant of heat, rainfall, and humidity. They are planted in fall and usually expire with the onset of summer (late May/June). See Figure No. 1 for list of warm season annuals/ perennials. and Figure No. 2 for list of warm season annuals/ perennials. See Figure 3, 4 & 5 for Typical Planter Layouts A, B, C, and D.

### 3.02 SCHEDULE

- All flower beds on the property will be changed four (4) times per year during the months of January, April, July and October, and all perennial beds will be changed (2) times per year during the
- months of April and October. Contractor recognizes that flower beds are intended to highlight and beautify high profile areas and should be selected for color, profusion and display.
- All newly planted beds will have a minimum of 50% of the plants in bloom at the time of installation. Contractor will obtain prior approval of plant selection from owner

or owner's representative before installation.

## 3.03 INSTALLATION

- The most important step in establishing annuals and peronnials is preparing the planting bed. Apply several inches of organic matter to the soil surface and work into the top 10 to 12 inches, A soil pH of 5.5 to 6.5 is recommended. Many county Extension offices test soil and make pH recommendations. Next, sprinkle a controlled-release fertilizer such as Osmocote®, Dynamite, or other similar product at the rate indicated on the label. Thoroughly mix it into the top 6 inches of soil. Organic matter helps the soil retain moisture, and controlled-release fertilizer provides a continuous nutrient supply over an extended period of time. Product labels normally specify the time span that the fertilizer will be released (e.g., 3-4 months). Choose a release time suited to
- the life span of the annuals being planted. Hand- water the annuals well before and after planting. Spacing of plants should be based on the mature size of the plant. Hand-water newly planted annuals as needed. Apply Ron-Star pre-emergent herbicide per manufacturer's directions and 2" layer of pine bark mulch fines.
- C. All raised planter flower beds should be covered with 1" layer of Pine fines after planting.
- Annually, prior to the spring change out, existing soil will be removed to a depth of 6" in all annual and perennial beds and replaced with clean growing medium composed of 60% peat and 40% fine aged Pine bark.

#### 3.04 MAINTENANCE

A. Flower beds will be reviewed at each service visit for the following: Removal of all litter and debris. Beds are to remain weed - free at all times. 3. All declining blooms are to be removed immediately.

4. Inspect for the presence of insect or disease activity and treat

immediately. Maintain annuals throughout the growing season by pinching and deadheading practices. Pinching is a light pruning of stem tips to control the size and shape of the plant. Deadheading is the removal of spent blooms to improve appearance and redirect plant energy into new growth and flowers rather than seed production. Frequent "pinching" will result in healthier, more

#### compact plants

Most perennials require little maintenance other than occasional pruning and fertilizing. Timing of fertilizer applications and amounts may vary with different plants and parts of the state. Let the appearance and growth rate of the plant guide you. Many perennials require little or no fertilizer once established. Occasional pruning may be needed to remove dead flower spikes or unsightly leaves, or to reduce the size of the plant.

- D. Pre-emergent herbicides are not to be used in flower beds.
- Contractor guarantees the survivability and performance of all flower beds for a period of 90 days. Any plant that fails to perform during this period will be immediately replaced at the contractor's
- F. Fountain grass shall be cut back annually to a height of 12" in the early spring after the last frost date.
- Monitor annuals frequently for insects and diseases. Infestations detected in the early stages can be controlled by spot treatments before the entire planter is infested. An insect infestation on a few plants can be controlled by picking insects off by hand or, in the case of disease, by removing infected leaves. For severoinfestations, remove infected plant immediately. Contact your county's Extension office for recommendations on the selection and application of pesticides
- The annual / perennial maintenance program shall be specified in the landscape maintenance contract in terms of planters and quantities to be included in the program. The Contractor shall furnish all plant materials, soil amendments, and labor for the installation and replacement of perennials at the price determined in the contract. The Contractor shall be responsible for the full and complete care

of all annual flowers and seasonal color plantings, including

watering, mulching, spraying, fertilization, and pruning such that

the Owner is guaranteed that the annual/perennial planting mass.

shall maintain a healthy and vigorous appearance with quality The Contractor shall notify the Owner requesting written authorization for any services over and above those specified in these Landscape Maintenance Specifications. The Contractor shall provide the Owner with an estimate of the total cost, or hourly and material rates if applicable, for all additional services.

#### 3.05 WARRANTY

Any bedding plant that dies due to insect damage or disease will be replaced under warranty. Exclusions to this warranty would be freeze, theft, or vandalism.

No additional services shall proceed without the Owner's approval.

ASON E. RINARD, P.L.A FL REG NO 0001608 LANDSCAPE ARCHITECT Location: Tampa, FL

THIS ITEM HAS BEEN DIGITALLY SIGNED. AND SEALED BY JASON E. RINARD, P.L.A. ON THE DATE ADJACENT TO THE SEAL PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SCALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES

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