

#### CITY OF OCALA CITY ENGINEER'S OFFICE STORMWATER ENGINEERING DIVISION

1805 NE 30th AVE, BLDG 600 OCALA, FLORIDA 34470

**CITY MANAGER - PETER LEE** CITY ENGINEER - SEAN LANIER

100% PLANS

### STATEMENT OF OWNERSHIP

PROPERTY SHOWN AND DESCRIBE HEREON IS OWNED BY THE CITY OF OCALA AND THAT I, MY SUCCESSORS OR ASSIGNED WILL PERPETUALLY MAINTAIN THE IMPROVEMENTS AS SHOWN ON THIS PLAN.

DATE SIGNED: SEAN LANIER, P.E., CFM CITY ENGINEER / DIRECTOR OF ENGINEERING & WATER RESOURCES 1805 NE 30TH AVE, BLDG 600 OCALA, FL 34470

U.S. Department of Transportation, Manual on Uniform Traffic Control Devices (2009 Version with Revisions)

Florida Department of Transportation, Standard Plans for Road and Bridge Construction (FY 2020-2021 Version)

Florida Department of Transportation, Standard Specifications for Road and Bridge Construction (July 2020 Version)

Florida Department of Transportation, Manual of Uniform Minimum Standards for Design, Construction, & Maintenance of Streets & Highways "Florida Green Book" (2016 Version,

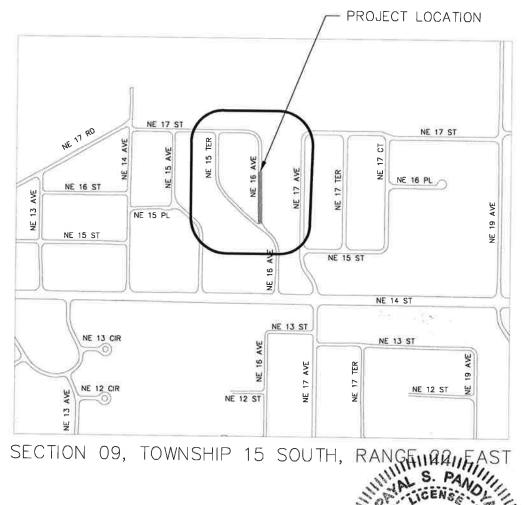
City of Ocala, Land Development Code (FY 2020-2021 Version)

City of Ocala, Standard Specifications For Construction of Streets, Stormwater, Traffic, Water & Sewer Infrastructure (October 2018 Version)

## CONSTRUCTION PLANS FOR **NE 16th AVE** DRAINAGE IMPROVEMENTS

ITB NO. CIP 230427

LOCAL UTILITIES		
UTILITY COMPANY	PHONE NUMBER	EMERGENCY
AT&T	(352) 284-8110	
CENTURY LINK	(352) 368-8817	
COX COMMUNICATIONS	(888) 269-9693	
TECO GAS	(352) 622-0112	(352) 622-0111
CITY OF OCALA ELECTRIC	(352) 351-6650	(352) 351-6666
CITY OF OCALA TRAFFIC	(352) 351-6733	
CITY OF OCALA WATER/SEWER	(352) 351-6772	(352) 351-6775



## **INDEX OF SHEETS**

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2-3	GENERAL & CONSTRUCTION NOTES
4	.PLAN & PROFILE (STA. 0+00 TO 2+75)
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PROJECT DESIGN SPEED = 40 MPH PROJECT POSTED SPEED = 30 MPH

THIS TONAL ENTE

PAYAL S. PANDYA, PE, CFM

State of Florida, DATE:\_

Registered Engineer No. 73210

Valid only with embossed seal.

Know what's below. Call before you dig.

CITY ENGINEER'S OFFICE
STORMWATER ENGINEERING DIVISION
1805 NE 30th AVE, BLDG 600
OCALA, FLORIDA 34470 PREPARED

OCALA

OF

R. KELLY ROBERTS, P.S.M. Professional Surveyor and Mapper No. 5558 State of Florida, DATE: Valid only with embossed seal.

#### GENERAL NOTES:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION, INSPECTION AND REPORTING ALL REQUIREMENTS OF THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AS PER THE REQUIREMENTS OF THE FDEP/MPDES GENERAL PERMIT.
- 2. THE CONTRACTOR SHALL PROVIDE ALL INFORMATION, AS—BUILT CERTIFIED SURVEYS, CERTIFIED TEST RESULTS, AND O&M MANUALS (IF APPLICABLE), TO THE CITY OF OCALA FOLLOWING COMPLETION OF THE CONSTRUCTED ITEMS, AND IN TIME TO OBTAIN CERTIFICATIONS AS NEEDED FROM ALL STATE AND LOCAL AGENCIES, A MINIMUM OF 3 WEEKS PRIOR TO NEEDING CERTIFICATE OF OCCUPANCY. RECORD DRAWING INFORMATION SHALL INCLUDE BUT NOT BE LIMITED TO FINISHED GRADE ELEVATIONS, SANITARY SEWER LINE LOCATIONS, MANHOLE AND STORM STRUCTURE RIM AND INVERT ELEVATIONS, PLUS LOCATION, DIMENSION AND ELEVATIONS OF ALL OTHER CONSTRUCTION COMPONENTS THAT VARY FROM THE DESIGN PLANS.
- 3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS BEFORE COMMENCEMENT OF CONSTRUCTION. ANY DEVIATION IN PLAN INFORMATION SHALL BE REPORTED TO ENGINEER IMMEDIATELY.
- 4. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A DEWATERING PERMIT FROM SAINT JOHN'S RIVER WATER MANAGEMENT DISTRICT, IF
- 5. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC AND USAGE OF EXISTING STREETS AND DRIVEWAYS ADJACENT TO THE PROJECT
- 6. CONTRACTOR SHALL MINIMIZE THE UNDERGROUND WORK AREA AND WIDTH OF TRENCHES TO AVOID DISTURBANCES OF NATURAL VEGETATION. SPOIL FROM TRENCHES SHALL BE PLACED ONLY ON PREVIOUSLY CLEARED AREAS OR AS DIRECTED BY THE OWNER. CONTRACTOR SHALL NOT REMOVE AND/OR DISTURB ANY TREES OR SHRUBS WITHOUT PRIOR APPROVAL BY ENGINEER.
- 7. ALL UNDERGROUND UTILITIES AND INFRASTRUCTURE TO BE LOCATED BENEATH THE STABILIZED PORTION OF THE ROAD BED SHALL BE INSTALLED BEFORE COMPACTION OF THE SUBGRADE OR AS OTHERWISE DIRECTED BY ENGINEER.
- 8. CONTRACTOR SHALL NOT INTERRUPT OPERATION OF EXISTING UTILITIES UNLESS OBTAINING WRITTEN PERMISSION FROM THE RESPECTIVE UTILITY OWNER.
- 9. TESTING: ALL TESTS SHALL BE IN ACCORDANCE WITH CITY OF OCALA LAND DEVELOPMENT REGULATIONS UNLESS OTHERWISE SPECIFIED.
- 10. AREAS DISTURBED BY CONSTRUCTION SHALL BE SODDED, UNLESS OTHERWISE NOTED ON THE PLANS. A FULL STAND OF PERENNIAL GRASS WILL BE REQUIRED PRIOR TO RECEIVING PROJECT APPROVAL.
- 11. NOTIFICATION TO OWNER (CITY OF OCALA) AND ENGINEER IS REQUIRED 72 HOURS BEFORE CONSTRUCTION COMMENCEMENT, ALSO FOR PERFORMANCE OF DENSITY TESTING AND ASPHALTIC APPLICATION.
- 12. THE CONTRACTOR SHALL REFER TO AND ABIDE BY ALL PERMIT DOCUMENTS AND GOVERNMENTAL AGENCY INSPECTIONS / REPRESENTATIVES DIRECTIONS FOR ANY ADDITIONAL REQUIREMENTS OF SAID AGENCIES
- 13. ANY DEVIATION FROM THESE PLANS REQUIRES PRIOR WRITTEN APPROVAL FROM THE PROFESSIONAL ENGINEER OF RECORD AND, IF APPLICABLE, FROM THE CITY OF OCALA.
- 14. THE GENERAL CONTRACTOR FOR THE PROJECT IS HEREBY REQUIRED, AS PART OF THE CONTRACT, TO REVIEW EACH SHEET OF THE SET AND STUDY THEIR CORRELATION PRIOR TO BIDDING & CONSTRUCTION.
- 15. THE GENERAL CONTRACTOR IS HEREBY REQUIRED TO IMPLEMENT SITE SAFETY AT ALL TIMES PER LATEST OSHA STANDARDS.
- 16. CONTRACTOR SHALL CONTACT FLORIDA SUNSHINE ONE—CALL AT 1.800.432.4770 PRIOR TO COMMENCING ANY UNDERGROUND EXCAVATION. THE GENERAL CONTRACTOR IS HEREBY REQUIRED TO CONTACT ALL PERTINENT UTILITY COMPANIES, FIELD VERIFY THE EXACT LOCATION, BOTH HORIZONTAL AND VERTICAL, OF ALL EXISTING UTILITIES WITHIN THE PROJECT BOUNDARY BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF TRENCHING.
- 17. CONSTRUCTION SHALL COMMENCE ONLY AFTER APPROVAL OF ALL APPLICABLE PERMITS. THIS PROJECT FALLS WITHIN THE JURISDICTION OF THE FOLLOWING REGULATORY / MUNICIPAL AGENCIES:
  - CITY OF OCALA, FLORIDA
  - SAINT JOHN'S RIVER WATER MANAGEMENT DISTRICT
  - FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
     FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
- 18. THE CONTRACTOR SHALL COORDINATE ON—SITE WORK ACTIVITY, ACCESS AND MATERIALS STORAGE LOCATION WITH OTHER ON—SITE CONTRACTORS SO THAT WORK AT THE PROPOSED PROJECT SITE CAN COMMENCE IN HARMONY WITH OTHER SITE DEVELOPMENT ACTIVITIES.
- 19. THE CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW THE SITE TO DETERMINE EXISTING CONDITIONS. ANYTHING NOT COVERED IN THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S (CITY OF OCALA) REPRESENTATIVE AND SHALL NOT CONSTITUTE AN EXTRA, UNLESS APPROVED IN WRITING BY THE OWNER (CITY OF OCALA).

- 20. THE PROJECT AREA DEPICTED HEREON APPEARS TO LIE IN ZONE "X" (AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO FLOOD INSURANCE RATE MAPS (FIRM) NO. 12083C0528E AS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), COMMUNITY 120330, PANEL 0528, SUFFIX E, EFFECTIVE DATE: APRIL 19, 2017.
- 21. THE PROJECT AREA DEPICTED HEREON APPEARS TO LIE IN A SPECIAL FLOOD HAZARD AREA (SFHA) IDENTIFIED BY THE CITY OF OCALA WITH A BASE FLOOD ELEVATION (BFE) OF 103.07 FEET (NAVD 1988).
- 22. DO NOT REMOVE OR DAMAGE ANY BUILDING FOUNDATIONS. NOTIFY THE CITY INSPECTOR OF ANY PROBLEMS.
- 23. CONTRACTOR TO GUARANTEE ALL WORK FOR A PERIOD OF THREE YEARS FROM FINAL COMPLETION AND ACCEPTANCE BY THE OWNER.
- 24. THE OWNER (CITY OF OCALA) WILL ENGAGE THE SERVICES OF A RECOGNIZED SOILS AND MATERIALS TESTING LABORATORY FOR COMPLIANCE TESTING. THE COST OF ANY RE-TESTING REQUIRED, OR IMPACTS OF TIME DELAYS CAUSED BY WORK, OR MATERIALS NOT MEETING STATED CONTRACT REQUIREMENTS SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL SCHEDULE TESTING SO THAT CONSTRUCTION ACTIVITIES ARE NOT DISRUPTED. MISCELLANEOUS TESTING BOVE AND BEYOND NORMALLY SCHEDULED TESTING MAY BE REQUESTED BY THE OWNER AT ANY TIME. THE CONTRACTOR SHALL COOPERATE WITH SUCH ACTIVITIES.
- 25. THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE OWNER'S (CITY OF OCALA) REPRESENTATIVE UPON DISCOVERY OF CONFLICTS BETWEEN THE CONTRACT REQUIREMENTS AND ACTUAL CONSTRUCTION CONDITIONS AND SHALL NOT PROCEED WITH ANY WORK FOR WHICH THE CONFLICT HAS ARISEN UNTIL CONFLICT IS RESOLVED WITH THE OWNER'S REPRESENTATIVE.
- 26. ALL BURIED PIPELINES, CONDUITS, CABLES, ETC. SHALL HAVE A MINIMUM COVER OF 48 INCHES BELOW FINISHED GRADE UNLESS OTHERWISE CALLED FOR. ALL FACILITIES AND ACCESSORIES SHALL BE INSTALLED IN COMPLIANCE WITH APPLICABLE LOCAL CODES AND REQUIREMENTS PLUS THESE CONTRACT DOCUMENTS.
- 27. ALL DUST SHALL BE CONTROLLED ON SITE. ONLY AREAS SCHEDULED FOR IMMEDIATE CONSTRUCTION SHALL BE CLEARED OR STRIPPED OF PAVEMENT OR VEGETATION. WATERING, APPLICATION OF CALCIUM CHLORIDE, OR OTHER PRIOR APPROVED MEANS OF DUST CONTROL SHALL BE EMPLOYED TO PREVENT THE EMANATION OF DUST FROM THE SITE. PERMANENT PAVEMENT, GRASSING, LANDSCAPING, AND OTHER SITE WORK SHALL BE INCORPORATED AS SOON AS POSSIBLE.
- 28. CONSTRUCTION SHALL BE CARRIED OUT 'IN THE DRY'. THE CONTRACTOR SHALL REVIEW SITE CONDITIONS AND DETERMINE METHODS AND EXTENT OF DEWATERING NECESSARY. NO ADDITIONAL COMPENSATION SHALL BE PROVIDED FOR CONTROL OF GROUND OR SURFACE WATER, OR FOR ADDITIONAL MATERIALS OR TIME REQUIRED AS A RESULT OF INADEQUATE OR INSUFFICIENT DEWATERING.
- 29. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING RECORD DRAWING INFORMATION INCLUDING, BUT NOT LIMITED TO, FINISHED GRADE ELEVATIONS, STORMWATER FORCEMAIN LINES, STRUCTURE TOP AND INVERT ELEVATIONS, PLUS LOCATIONS, DIMENSIONS, AND ELEVATIONS OF ALL OTHER CONSTRUCTION COMPONENTS WHICH VARY FROM THE DESIGN.
- 30. THE STORMWATER FORCEMAIN AND STORMWATER SEWER SYSTEMS SHALL NOT BE PLACED IN SERVICE (FOR TEMPORARY OR PERMANENT USE) UNTIL ALL TESTING AND INSPECTIONS HAVE BEEN COMPLETED. TEST REPORTS AND AS—BUILTS FOR THE SYSTEM COMPLETED SHALL BE SUBMITTED AND CLEARANCE OBTAINED FROM CITY OF OCALA ENGINEERING DEPARTMENT AND THEIR PROJECT ENGINEER.
- 31. THE CONTRACTOR'S SURVEYOR SHALL REESTABLISH ALL ROAD AND RIGHT—OF—WAY CONTROL BEFORE STARTING CONSTRUCTION. THE CONTRACTOR'S SURVEYOR SHALL IDENTIFY FOR THE CONTRACTOR ALL PUBLIC WATER & WASTEWATER UTILITIES THAT ARE LOCATED OUTSIDE THE PUBLIC RIGHT—OF—WAY IN THE AREA OF THE PROJECT.
- 32. ANY PUBLIC LAND CORNER WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED THE CONTRACTOR SHALL EMPLOY THE SERVICES OF A PROFESSIONAL REGISTERED SURVEYOR TO REESTABLISH THE MONUMENT AND REFERENCES AND PROPERLY NOTIFY LOCAL PUBLIC AGENCIES AND FILE ALL REQUIRED DOCUMENTATION ALL AT NO ADDITIONAL COST TO THE OWNER (CITY OF OCALA).

#### **EROSION CONTROL NOTES:**

- THE CONTRACTOR SHALL PREVENT THE DISCHARGE OF SEDIMENT DUE TO CONSTRUCTION OPERATIONS. ALL NEW AND EXISTING DRAIN PIPES AND STRUCTURES SHALL BE FLUSHED CLEAN PRIOR TO FINAL PAYMENT.
- ALL STORM SEWER INLETS SHALL BE PROTECTED SO THAT SEDIMENT LADEN WATER WILL NOT ENTER THE STORM SYSTEM WITHOUT FIRST BEING FILTERED.

- 3. ALL DISTURBED AREAS ARE TO BE SODDED. ALL STABILIZATION PRACTICES SHALL BE PERFORMED AS SOON AS PRACTICAL AT LOCATIONS WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL GROUND COVER IS ACHIEVED AND, IN THE OPINION OF THE ENGINEER, PROVIDES ADEQUATE COVER AND IS MATURE ENOUGH TO CONTROL SOIL EROSION SATISFACTORILY, TO SURVIVE ADVERSE WEATHER CONDITIONS.
- 4. STAKED SILT FENCE SHALL BE PLACED AS SHOWN ON SHEET 16.
- 5. THE CONTRACTOR WILL PROVIDE LITTER CONTROL AND COLLECTION WITHIN THE PROJECT BOUNDARIES DURING CONSTRUCTION ACTIVITIES. ALL FERTILIZERS, HYDROCARBON, OR OTHER CHEMICAL CONTAINERS SHALL BE DISPOSED OF BY THE CONTRACTOR ACCORDING TO EPA'S STANDARD PRACTICES AS DETAILED BY THE MANUFACTURER.
- 6. LOADED HAUL TRUCKS SHALL BE COVERED WITH TARPAULIN. EXCESS DIRT ON THE ROAD SHALL BE REMOVED DAILY. AREAS WITHIN THE LIMITS OF CONSTRUCTION SHALL BE DAMPENED WITH WATER AS REQUIRED FOR DUST CONTROL. TRUCKS SHALL ENTER AND EXIT PROJECT USING NE 16TH AVE. AS HAUL ROUTE.
- THE CONTRACTOR WILL ADHERE TO ALL STATE AND LOCAL REGULATIONS.
- 8. TOXIC SUBSTANCES SHALL BE DISPOSED OF BY THE CONTRACTOR ACCORDING TO THE EPA'S STANDARD PRACTICES.
- 9. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE MAINTENANCE AND REPAIRS OF EROSION AND SEDIMENT CONTROL DEVICES, AND REMOVAL OF EROSION AND SEDIMENT CONTROL DEVICES AFTER THE NOTICE OF TERMINATION. MAINTENANCE AND REPAIR REQUIRED FOR THE CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION SHALL BE INCLUDED IN THE PROJECT COST.
- 10. THE FOLLOWING PRACTICES WILL BE USED TO MAINTAIN EROSION AND SEDIMENT CONTROLS:
- A. ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER.
   B. IF A REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
- C. ALL POLLUTION CONTROLS SHALL BE MAINTAINED AT ALL TIMES.
- D. BUILT UP SEDIMENT WILL BE REMOVED FROM STAKED SILT FENCE WHEN IT HAS REACHED ONE—HALF THE HEIGHT OF THE SILT FENCE.
- 11. POLLUTION CONTROL MEASURES SHALL BE INSPECTED DAILY, WRITTEN DOCUMENTATION OF INSPECTIONS SHALL BE WRITTEN EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF A RAIN EVENT OF 0.5 INCHES OR GREATER.
- 12. THE CONTRACTOR WILL PROVIDE THE CITY OF OCALA WITH AN EROSION CONTROL PLAN THAT WILL INCLUDE SPILL REPORTING AND RESPONSE. IF CONTAMINATED SOIL OR GROUNDWATER IS ENCOUNTERED, CONTACT THE PROJECT ENGINEER.

#### MAINTENANCE OF TRAFFIC NOTES:

CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING MAINTENANCE OF TRAFFIC (M.O.T.) PLANS AND SUBMIT TO CITY AND FDOT FOR THEIR REVIEW AND APPROVAL PRIOR TO START OF CONSTRUCTION. MOT SHALL BE IN ACCORDANCE WITH FDOT DESIGN STANDARDS LATEST EDITION AND THE FOLLOWING NOTES.

- THE POSTED SPEED LIMITS SHALL REMAIN THROUGH WORK ZONES AT ALL TIMES DURING CONSTRUCTION.
   30 MPH SHALL BE THE POSTED SPEED
- 2. LANES MAY BE CLOSED ONLY DURING ACTIVE WORK PERIODS.
- 3. ANY WORK ON LANDSCAPED MEDIAN AND/OR SHOULDER SHALL BE IN ACCORDANCE WITH FDOT DESIGN STANDARDS LATEST EDITION.
- 4. ALL TEMPORARY TRAFFIC CONTROL SHALL BE IN CONFORMANCE WITH MANUAL OF UNIFORMED TRAFFIC CONTROL DEVICES (MUTCD) CURRENT EDITION AND FDOT DESIGN STANDARDS LATEST EDITION.
- FOR LANE CLOSURES, FDOT AND THE CITY OF OCALA TRANSPORTATION ENGINEERING DEPARTMENT SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
- THE CONTRACTOR IS HEREBY MADE RESPONSIBLE FOR THE SAFE MAINTENANCE OF PEDESTRIAN AND VEHICULAR TRAFFIC AT ALL TIMES DURING THE DURATION OF THE PROJECT, AND IN ACCORDANCE WITH THE MOST RECENT FDOT STANDARDS.
- 7. THE CITY OF OCALA TRAFFIC DIVISION SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF STARTING STRIPING WORK.
- CONTRACTOR TO PROVIDE 2 PORTABLE PROJECT SIGNS (AS SPECIFIED IN CONTRACT DOCUMENTS) TO BE RELOCATED AS PROJECT PROGRESSES AT LOCATIONS APPROVED BY CITY'S INSPECTOR.
- PERMANENT STRIPING & MARKINGS SHALL BE INSTALLED A MINIMUM OF 14 DAYS AFTER FINAL PAVING.

- TEMPORARY STRIPING & MARKING (SHALL BE A PART OF THIS CONTRACT AND SHALL BE IN ACCORDANCE WITH LATEST EDITION OF MUTCD MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES).
  - A. ALL TEMPORARY PAINT SHALL BE WATER BASE.
  - B. TEMPORARY STOP BARS SHALL BE INSTALLED IMMEDIATELY AFTER NEW SURFACE IS IN PLACE AT ALL LOCATIONS WHERE PERMANENT STOP BARS ARE REQUIRED.
  - C. OTHER TEMPORARY STRIPING & MARKING CALLED OUT AS PART OF THE ROAD CURE SHALL BE INSTALLED IMMEDIATELY AFTER NEW SURFACE IS IN PLACE.
  - D. THE CITY SHALL PAY FOR TEMPORARY STRIPING & MARKING ONE TIME PER ROAD, ANY ADDITIONAL TEMPORARY STRIPING & MARKING SHALL BE AT THE CONTRACTORS EXPENSE.

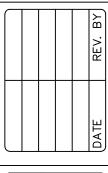
#### **ENVIRONMENTAL NOTES:**

#### NOTICE TO CONTRACTORS:

- 1. ALL WATER COLLECTED AND PUMPED DURING TRENCH DEWATERING ACTIVITIES SHALL BE DISPOSED OF IN UPLAND AREAS INTO DOUBLE STAKED HAY BALES. DISCHARGE LOCATIONS SHALL BE A MINIMUM OF 75 FEET FROM THE NEAREST WATER BODY OR WETLAND AREA TO ALLOW FOR MAXIMUM OVERLAND FILTRATION OF SOIL PARTICLES.
- 2. STAKED SILT SCREEN, TURBIDITY BARRIERS OR STAKED HAY BALES SHALL BE UTILIZED AS SILT BARRIERS AND PLACED IN LOCATIONS SHOWN ON THE PLANS AND AT OTHER LOCATIONS AS REQUIRED TO KEEP SEDIMENT FROM REACHING PRIVATE PROPERTY. THESE BARRIERS SHALL BE INSTALLED BEFORE COMMENCING WITH ANY CONSTRUCTION WITHIN OR ADJACENT TO PRIVATE PROPERTY. THE CONTRACTOR SHALL MONITOR AND MAINTAIN ALL SILT BARRIERS AND FENCING INCLUDING DAILY INSPECTIONS TO CHECK THEIR INTEGRITY. ANY LOOSE OR DAMAGED\_SILT BARRIERS AND FENCING SHALL BE IMMEDIATELY REPAIRED OR REPLACED AS NECESSARY. ONCE CONSTRUCTION IS COMPLETED AND FINISHED GRADING AND STABILIZATION HAS BEEN ACHIEVED, SILT BARRIERS AND FENCING SHALL BE COMPLETELY REMOVED TO THE SATISFACTION OF THE ENGINEER AND BEFORE FINAL ACCEPTANCE.
- 3. THE CONTRACTOR SHALL NOT REMOVE ANY TREES WITHOUT COORDINATING SUCH REMOVAL WITH THE ENGINEER. IF ANY TREES ARE REMOVED IN WETLAND JURISDICTIONAL, OR NATIVE VEGETATION AREAS WITHOUT PROPER AUTHORIZATION, CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A DETAILED RESTORATION AND/OR MITIGATION PLAN, SUBMITTING PLAN TO AND OBTAINING APPROVAL FROM FDEP, WATER MANAGEMENT DISTRICT, CITY, OWNER AND ENGINEER, AND COMPLETING ANY MONITORING AND MAINTENANCE REQUIREMENTS IMPOSED AS A RESULT OF TREE REMOVAL.

#### THE CONTRACTOR SHALL:

- 4. HANDLE, COLLECT, AND DISPOSE OF HAZARDOUS MATERIALS, SANITARY WASTE, AND CONSTRUCTION WASTE MATERIALS ACCORDING TO THE APPLICABLE STATE LAWS AND REGULATIONS, CITY ORDINANCES, OR AS DIRECTED BY THE CITY.
- 5. DESIGNATE AN AREA FOR DISCHARGE OF SURPLUS CONCRETE AN CONCRETE TRUCK DRUM WASH WATER. INSTALL A CONTAINMENT BERM AROUND THIS DESIGNATED AREA TO PREVENT RUNOFF BEYOND THE DESIGNATED AREA. ALL SURPLUS CONCRETE SHALL BE REMOVED FROM THE PROJECT SITE PRIOR TO FINAL INSPECTION.
- 6. STORE AND USE PETROLEUM AND OTHER HAZARDOUS PRODUCTS ACCORDING TO RECOMMENDED PROCEDURES.
- 7. FOLLOW GOOD HOUSEKEEPING PRACTICES TO MINIMIZE THE RISK OF SPILLS OR UNINTENDED EXPOSURE OF PETROLEUM AND OTHER HAZARDOUS MATERIALS TO STORMWATER RUNOFF OR SEEPAGE INTO THE GROUNDWATER.
- 8. HAVE PRE-PREPARED PROCEDURES CLEARLY POSTED FOR SPILL CONTAINMENT AND CLEAN-UP.
- 9. HAVE READILY AVAILABLE REMEDIATION MATERIALS FOR SPILL CONTAINMENT AND CLEAN-UP.
- 10. UPON RELEASE, IMMEDIATELY INITIATE RECOMMENDED METHODS FOR SPILL CONTAINMENT AND CLEAN-UP.
- 11. WITHIN 24—HOURS OF THE SPILL/RELEASE, NOTIFY THE 'STATE WARNING POINT' (AT 1.800.320.0519 OR 1.850.413.9911) OF ALL RELEASES EQUAL TO OR EXCEEDING THE REPORTABLE QUANTITY.



# E, CFM No. 73210 E:

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ROVEMENT

**DRAINAG** 

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16th

PAYAL S. PANDYA, PE, CFM Registered Engineer No. 73210 State of Florida, DATE: Valid only with embossed seal.

City Engineer's Office

BY: THE CITY OF OCALA

Y ENGINEER'S OFFICE

ATER ENGINEERING DIVISION

PREPARED BY: THE CITY ENGINEE STORMWATER ENGINE

DESIGNED BY: MDM/DF
DESIGNED BY: PSP
HORIZ.: N/A
VERT.: N/A
PROJ.#: 13201
F.B.#: 569/31

CRIPTION:

or 1

#### SURVEY & MAPPING NOTES:

- CP #1 (SHEET 4) N=1770110.8221, E=618826.2907 & CP #2 (SHEET 4) N=1770060.6123, E=618875.9932. COORDINATES SHOWN HEREON ARE BASED ON FLORIDA STATE PLANE COORDINATES, WEST ZONE AND ARE REFERENCED TO THE CITY OF OCALA CORS STATION.
- 2. ELEVATIONS SHOWN HEREON ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 AND ARE REFERENCED TO CITY CONTROL POINTS SHOWN ON THIS DRAWING.
- 3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR, PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, TO ENSURE ALL EXISTING SURVEY MARKERS ARE LOCATED, CLEARLY MARKED AND PROTECTED, BY THE
- 4. ANY SURVEY MARKER, INCLUDING, BUT NOT LIMITED TO, PUBLIC LAND SURVEY SECTION CORNER MARKERS, BENCH MARKS, PROPERTY CORNERS, ETC., WHICH ARE DISTURBED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE PRIOR TO FINAL PAYMENT.
- ADDITIONALLY, SURVEY STAKES PLACED MARKING THE LOCATIONS OF MARKERS, PROPERTY LINES, RIGHT-OF-WAY LINES, OR ANY OTHER POINT, PLACED FOR CONSTRUCTION AND SUBSEQUENTLY DISTURBED OR DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AS NEEDED AT THE RESPONSIBILITY OF THE CONTRACTOR.
- 6. RESETTING OF MONUMENTS AND MARKERS SHALL BE PERFORMED BY A PROFESSIONAL LAND SURVEYOR, LICENSED TO PRACTICE IN THE STATE OF FLORIDA AND SHOWN AS RE-SET ON AS-BUILT PLANS.
- 7. UNLESS PRIOR AGREEMENT IS MADE, IT SHALL NOT BE THE RESPONSIBILITY OF THE CITY SURVEYOR TO REPLACE ANY SURVEY MARKERS.

#### GENERAL PIPING NOTES:

#### VERTICAL CLEARANCE AT CROSSINGS:

GRAVITY SEWERS OR FORCE MAINS CROSSING UNDER WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE INVERT OF THE UPPER PIPE AND THE CROWN OF THE LOWER PIPE. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER JOINTS AND WATER JOINTS WILL BE EQUIDISTANT FROM THE POINT OF CROSSING WITH NO LESS THAN 10 FEET BETWEEN ANY TWO JOINTS. WHERE THE MINIMUM 18 INCH SEPARATION CANNOT BE MAINTAINED, THE SEWER SHALL BE PLACED IN A SLEEVE FOR 20 FEET CENTERED ON THE POINT OF CROSSING.

WHERE THERE IS NO ALTERNATIVE TO SEWER PIPES CROSSING OVER WATER MAINS, THE PIPES SHALL BE CENTERED AT THE CROSSING AS INDICATED ABOVE, AND THE WATER MAIN SHALL BE PLACED IN A SLEEVE FOR 20 FEET CENTERED ON THE POINT OF CROSSING. ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER

#### 2. HORIZONTAL SEPARATION BETWEEN PARALLEL LINES:

GRAVITY SEWERS SHALL BE INSTALLED AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER MAIN. THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. IN CASES WHERE IT IS NOT PRACTICAL TO MAINTAIN A 10 FOOT SEPARATION, THE WATER MAIN SHALL BE INSTALLED IN A SEPARATE TRENCH OR ON AN UNDISTURBED EARTH SHELF LOCATED ON ONE SIDE OF THE SEWER AND AT AN ELEVATION SO THAT THE BOTTOM OF THE WATER MAIN IS AT LEAST 18 INCHES ABOVE THE TOP OF THE SEWER, AND THE WATER AND SEWER JOINTS SHALL BE STAGGERED.

- 3. IF, DURING CONSTRUCTION, A WATER SERVICE PIPE IS DETERMINED TO BE IN CONFLICT WITH THE PROPOSED PIPELINE, NOTIFY THE PROJECT ENGINEER AND THE CITY OF OCALA WATER & SEWER ENGINEER FOR DIRECTION.
- 4. WATER SERVICE LATERALS MAY BE TEMPORARILY SHUT OFF IF WATER & SEWER ENGINEER AND PROPERTY OWNER ARE NOTIFIED 48 HOURS IN
- 5. WATER SERVICE LATERALS MAY BE TEMPORARILY CUT IN ORDER TO INSTALL PIPELINE IN TRENCH. WATER SERVICE MUST BE RECONNECTED AS SOON AS POSSIBLE AFTER PIPE INSTALLATION AND NO LATER THAN THE END OF THE WORKING DAY
- 6. WATER AND SEWER SERVICE LATERALS WHICH HAVE BEEN DETERMINED TO BE IN CONFLICT WITH PROPOSED DESIGN SHALL BE REINSTALLED PER CITY OF OCALA WATER AND SEWER CONSTRUCTION MANUAL.
- 7. GRAVITY SEWER SERVICE LATERALS MUST MAINTAIN A MINIMUM SLOPE OF 1/4" PER FOOT.
- 8. CONTRACTOR IS TO HAVE TOOLS AND MATERIALS ON SITE TO RELOCATE EXISTING UTILITY SERVICES.
- 9. CONTRACTOR SHALL LOCATE WATER AND SEWER SERVICE PIPES PRIOR TO INSTALLATION OF PIPELINE. GRAVITY SEWER SERVICE LATERALS ARE LOCATED ON THE PLANS ACCORDING TO AS-BUILT DRAWINGS RECEIVED FROM CITY OF OCALA DATED JANUARY 1971 BY BLACK, CROW, & EIDSNESS, INC. UTILITY SERVICES ARE APPROXIMATE. CONTRACTOR SHALL HAND DIG WHEN WITHIN TEN FEET OF EXPECTED UTILITY.
- 10. IF. DURING CONSTRUCTION, IT IS FOUND THAT A WATER SERVICE LINE IS DETERIORATED, NOTIFY THE PROJECT ENGINEER AND THE CITY OF OCALA WATER & SEWER ENGINEER FOR DIRECTION.

#### **RESTORATION NOTES:**

- 1. CONTRACTOR IS TO RESTORE DRIVEWAYS AND ROADWAYS WITH LIKE TYPE MATERIALS TO EQUAL OR BETTER THAN ORIGINAL CONDITION
- MAILBOXES DISTURBED DURING CONSTRUCTION SHALL BE REPLACED IN THEIR ORIGINAL LOCATIONS. DAMAGED MAILBOXES SHALL BE REPAIRED OR REPLACED FQUAL TO OR BETTER THAN ORIGINAL CONDITION.
- 3. CONTRACTOR IS TO TAKE NOTE OF PAVEMENT MARKINGS PRIOR TO CONSTRUCTION. UPON COMPLETION OF PAVEMENT SEGMENT, PAVEMENT MARKINGS SHALL BE REAPPLIED TO MATCH ORIGINAL MARKINGS.
- 4. DRIVEWAYS NOT PAVED PRIOR TO CONSTRUCTION SHALL BE PAVED WITH ASPHALT AFTER PIPELINE CONSTRUCTION IS COMPLETE.

#### STORMWATER NOTES:

- 1. ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE CITY OF OCALA STANDARD SPECIFICATIONS VOLUME I, "GENERAL CONDITIONS FOR CONSTRUCTION" AND FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATION FOR ROAD & BRIDGE CONSTRUCTION (LATEST EDITION)", AND VOLUME III, "STANDARD SPECIFICATIONS FOR WATER & SEWER CONSTRUCTION"
- 2. NO CHANGES TO THE WORK AS SHOWN ON THESE PLANS SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE PROJECT ENGINEER. CONTRACTOR SHALL NOT SCALE DRAWINGS. CONTRACTOR SHALL CHECK ACTUAL SITE CONDITIONS PRIOR TO CONSTRUCTION. ANY NEED FOR CLARIFICATION OF PROPOSED IMPROVEMENTS OR FOR RESOLUTION OF DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER.
- 3. THE CONTRACTOR AND SUBCONTRACTORS ARE HEREBY REQUIRED TO PROMPTLY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES OR CONFLICTS FOUND IN THE PLANS OR SPECIFICATIONS, SO THEY CAN BE CLARIFIED BY THE ENGINEER.
- 4. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING IMMEDIATELY WHEN CONFLICTS ARE IDENTIFIED DURING THE COURSE OF THE
- 5. THE PROJECT ENGINEER SHALL HAVE ACCESS TO THE WORK SITE AT ALL
- 6. CONTRACTOR SHALL PROVIDE ACCESS TO ALL RESIDENCES AND BUSINESSES DURING THE ENTIRE CONSTRUCTION PERIOD.
- 7. WHEN OPERATING OUTSIDE CITY OF OCALA RIGHT-OF-WAY, THE CONTRACTOR SHALL GIVE PROPER NOTIFICATION AND OBTAIN WRITTEN PERMISSION TO DO SO FROM THE OWNER OF EACH PARTICULAR PROPERTY.
- 8. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE PROPERTY OWNERS REGARDING RELOCATION, REMOVAL, OR REPLACEMENT OR FENCES, MAILBOXES, SURVEY MONUMENTS AND SECTION CORNERS, DRIVEWAYS. LANDSCAPE, ETC. NEW CONSTRUCTION SHALL BE EQUIVALENT TO EXISTING FEATURES REMOVED OR RELOCATED, AS DETERMINED BY THE PROJECT FNGINFFR.
- 9. ALL AREAS INSIDE AND OUTSIDE THE PROJECT LIMITS, WHICH ARE DISTURBED AS A RESULT OF THE PROJECT CONSTRUCTION, SHALL BE RESTORED TO THE ORIGINAL OR DESIGN GRADE AS APPLICABLE, INCLUDING REPLACEMENT OR EQUIVALENT SHRUBS AND TREES (REPLACEMENT TREES SHALL BE A 6' MINIMUM HEIGHT AND SAME TYPE) AND SODDED AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE APPROVED BY THE PROJECT ENGINEER.
- 10. THE ENGINEER OF RECORD SHALL BE THE SOLE INTERPRETER OF THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS AND SHALL RENDER WRITTEN OR GRAPHIC INTERPRETATIONS AS NECESSARY FOR THE PROPER EXECUTION OR PROGRESS OF THE WORK WITH REASONABLE PROMPTNESS ON REQUEST OF THE CONTRACTOR.
- 11. ALL DETAILS, SECTIONS, AND NOTES SHOWN ON DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR SITUATIONS ELSEWHERE UNLESS NOTED OR SHOWN OTHERWISE
- 12. ANY REQUIRED ADJUSTMENT ON TELEPHONE & GAS LINES DURING CONSTRUCTION SHALL BE DONE BY OTHERS.
- 13. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME FAMILIAR WITH THE OSHA EXCAVATION SAFETY STANDARDS AND TO ABIDE BY THEM AS COVERED UNDER THE FLORIDA TRENCH SAFETY ACT.
- 14. THE CONTRACTOR IS HEREBY REQUIRED TO IMPLEMENT JOB SAFETY AT ALL TIME THROUGHOUT THE DURATION OF THE PROJECT. JOB SAFETY PRACTICES SHALL BE IN ACCORDANCE WITH OSHA AND ANY OTHER LOCAL, STATE, AND FEDERAL REGULATIONS.
- 15. UTILITIES SHOWN HEREON HAVE BEEN LOCATED BASED ON ABOVE GROUND EXISTENCE OF STRUCTURES. ACTUAL LOCATION OF UNDERGROUND UTILITIES IS UNKNOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN THROUGH DIRECT CONTACT WITH THE APPROPRIATE UTILITY COMPANIES. SUCH CONTACT SHALL BE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT.
- 16. CONTRACTOR SHALL BE REQUIRED TO NOTIFY UTILITY CONTACTS PRIOR TO CONSTRUCTION TO ALLOW UTILITY RELOCATIONS AND INSTALLATION OF FACILITIES, SUCH AS CONDUIT CROSSING FOR FUTURE USE, THESE SHALL BE ACCOMPLISHED BY THE RESPECTIVE UTILITY OWNER

- 17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO UTILITIES, STRUCTURES, AND PROPERTY OF AND ADJACENT TO THE SITE CAUSED BY
- 18. THE CONTRACT IS RESPONSIBLE FOR BRACING, SHORING, OR PROVIDING OTHER MEANS NECESSARY TO PROTECT AND SUPPORT EXISTING UTILITIES EXPOSED DURING CONSTRUCTION UNTIL THE RESPONSIBLE UTILITY COMPANY ARRIVES ON
- 19. COORDINATION TO AVOID POSSIBLE CONFLICTS BETWEEN WATER MAINS, PRESSURE MAINS, GRAVITY SEWERS AND OTHER CONSTRUCTION UNDER THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 20 CONTRACTOR TO FIFLD VERIFY TOP FLEVATIONS OF ALL DRAINAGE STRUCTURES, AND SEWER MANHOLES PRIOR TO FABRICATIONS.
- 21. ALL PIPE LENGTHS AND INVERTS SHOWN HERE IN ARE FROM THE CENTERLINE OF THE STRUCTURE TO THE CENTERLINE OF THE STRUCTURE OR END OF PIPE, UNLESS OTHERWISE NOTED.
- 22. ALL EXISTING STORM WATER DRAINAGE PATTERNS AND CHANNELS OUTSIDE THE CONSTRUCTION AREAS SHOWN ON THESE PLANS ARE TO BE MAINTAINED. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF THE WORK APPEARS TO INTERRUPT AN EXISTING STORM WATER DRAINAGE PATTERN. THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH FOR ALL SURFACE WATER DRAINAGE STRUCTURES AND DITCHES DURING ALL PHASES OF CONSTRUCTION SUCH THAT IMPACT TO CONSTRUCTION AND/OR SURROUNDING FACILITIES IS MINIMIZED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EROSION, SEDIMENT TRANSPORT, DISTURBED FOUNDATIONS, IMPACT TO STRUCTURE, AND ANY OTHER DAMAGE CAUSED DURING CONSTRUCTION.
- 23. ALL MANHOLE COVERS, VALVE BOX COVERS AND OTHER COVERS SHALL BE ADJUSTED AS NEEDED, CONTRACTOR SHALL ADJUST PRIOR TO LAYING FINAL ASPHALT OR CONCRETE COURSE. WHERE SANITARY SEWER MANHOLE LIDS ARE TO BE REMOVED AND REPLACED WITH HINGED LIDS, THE CITY'S WATER & SEWER DEPARTMENT SHALL FURNISH THE LIDS.
- 24. CONTRACTOR SHALL COORDINATE RELOCATION OF OVERHEAD UTILITIES TO MEET THE MINIMUM VERTICAL CLEARANCE OF 18 FEET AND THE HORIZONTAL CLEAR ZONE DISTANCE. TREES TO REMAIN IN THE RIGHT OF WAY SHALL BE TRIMMED TO MEET THE VERTICAL CLEARANCE AS SPECIFIED BY THE LATEST FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- 25. THE CONTRACTOR SHALL HAUL ALL EXCESS MATERIALS OFF THE JOB SITE. IT WILL BE THE CONTRACTORS RESPONSIBILITY TO DISPOSE OF ALL EXCESS MATERIAL AFTER IT IS DETERMINED THAT IT IS NO LONGER NEEDED ON THE
- 26. UNSUITABLE MATERIAL FROM WITHIN THE PROJECT SHALL BE DISPOSED OF OFF SITE BY THE CONTRACTOR. SUITABLE MATERIAL FROM WITHIN THE PROJECT SHALL BE USED FOR FILL AS SHOWN ON THE CROSS SECTIONS.
- 27. UNSUITABLE MATERIAL SHALL BE EXCAVATED BELOW PIPE AS FOLLOWS: LESS THAN 8 FEET FROM PIPE INVERT TO FINISHED GRADE EXCAVATE 2 FEET BELOW PIPE. MORE THAN 8 FEET FROM PIPE INVERT TO FINISHED GRADE EXCAVATE 1 FOOT BELOW PIPE
- 28. ALL EXISTING SUB BASE SHALL BE FREE FROM DELETERIOUS MATERIALS AND UNDUE DISTORTION, BE FIRM AND COMPACT, AND HAVE ADEQUATE MOISTURE LEVELS TO MAINTAIN STABILITY AS A WORK AREA IMMEDIATELY PRIOR TO PAVEMENT OF THE BASE MATERIAL.
- 29. KARST SENSITIVE AREA REQUIREMENTS: IF A SINKHOLE OR SOLUTION CHANNEL IS EXPOSED DURING CONSTRUCTION, THE ENGINEER SHALL BE IMMEDIATELY CONTACTED. REPAIR WILL BE PERFORMED CONSISTENT WITH WATER MANAGEMENT DISTRICT STANDARDS.

#### CITY OF OCALA STANDARD DETAILS REQUIRED:

- ABBREVIATIONS (DETAIL #1A-1C)
- VALVE BOX INSTALLATION (DETAIL #G-14)
- LOCATING WIRE SYSTEM (DETAIL #G-15A-15G)
- TRENCH EXCAVATION (DETAIL #G-16) TRENCH BACKFILL (DETAIL #G-17)
- SAWCUT AND MATCH EXISTING PAVEMENT (DETAIL #G-21)
- TYPICAL CONSTRUCTION BARRIER FENCE (DETAIL #G-23)
- TYPICAL TREE PROTECTION (DETAIL #G-24)
- TPYICAL SILT FENCE (DETAIL #G-25) BOLLARD INSTALLATION (DETAIL #G-26)
- 11. 6" BOLLARD TYPE i & ii (DETAIL #G-28)
- 12. PRECAST CONCRETE MANHOLE 5'-12' DEPTH (DETAIL #SS-3)
- 13. KARST (DETAIL #SW-6)
- 14. WATER MAIN BYPASS (DETAIL #W-29)

# LEGEND:

= RAILROAD SPIKE

= SET IRON ROD AND CAP

 $\boxtimes$ = FOUND 4"X4" CONCRETE MONUMENT

= SET 4"X4" CONCRETE MONUMENT

 $\bigcirc$ = FOUND 5/8" ROD AND CAP

• = FOUND DRILL HOLE X = EXISTING FIRE HYDRANT

6 = UTILITY POLE = GUY ANCHOR

 $\leftarrow$ 

= TRANSFORMER  $\bigcirc$ = GAS METER

WTR. = WATER VALVE

= SANITARY SEWER MANHOLE

0 = SPRINKLER HEAD 

= WATER METER

 $\Diamond$ = LIGHT POLE

= MAILBOX



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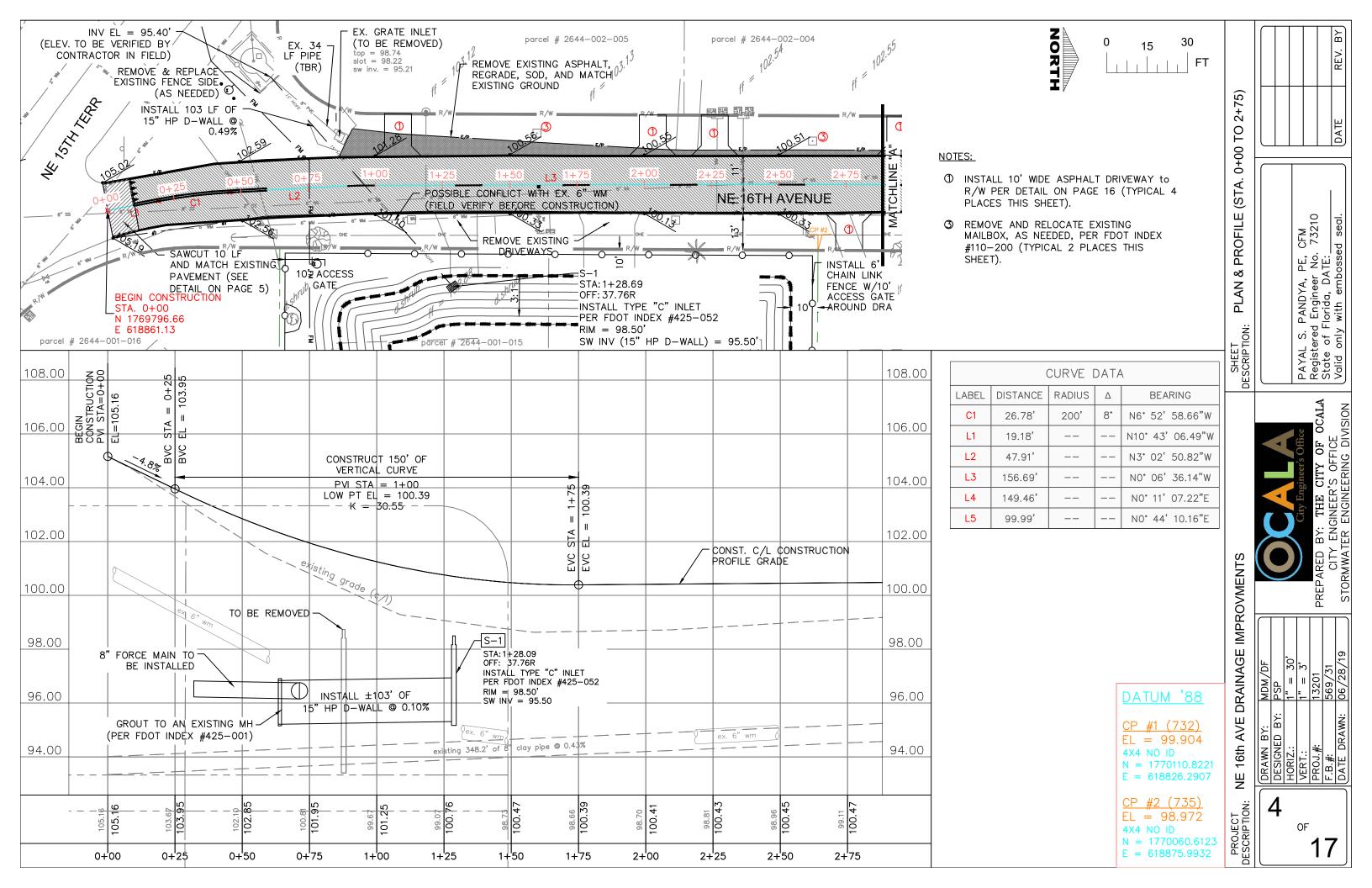
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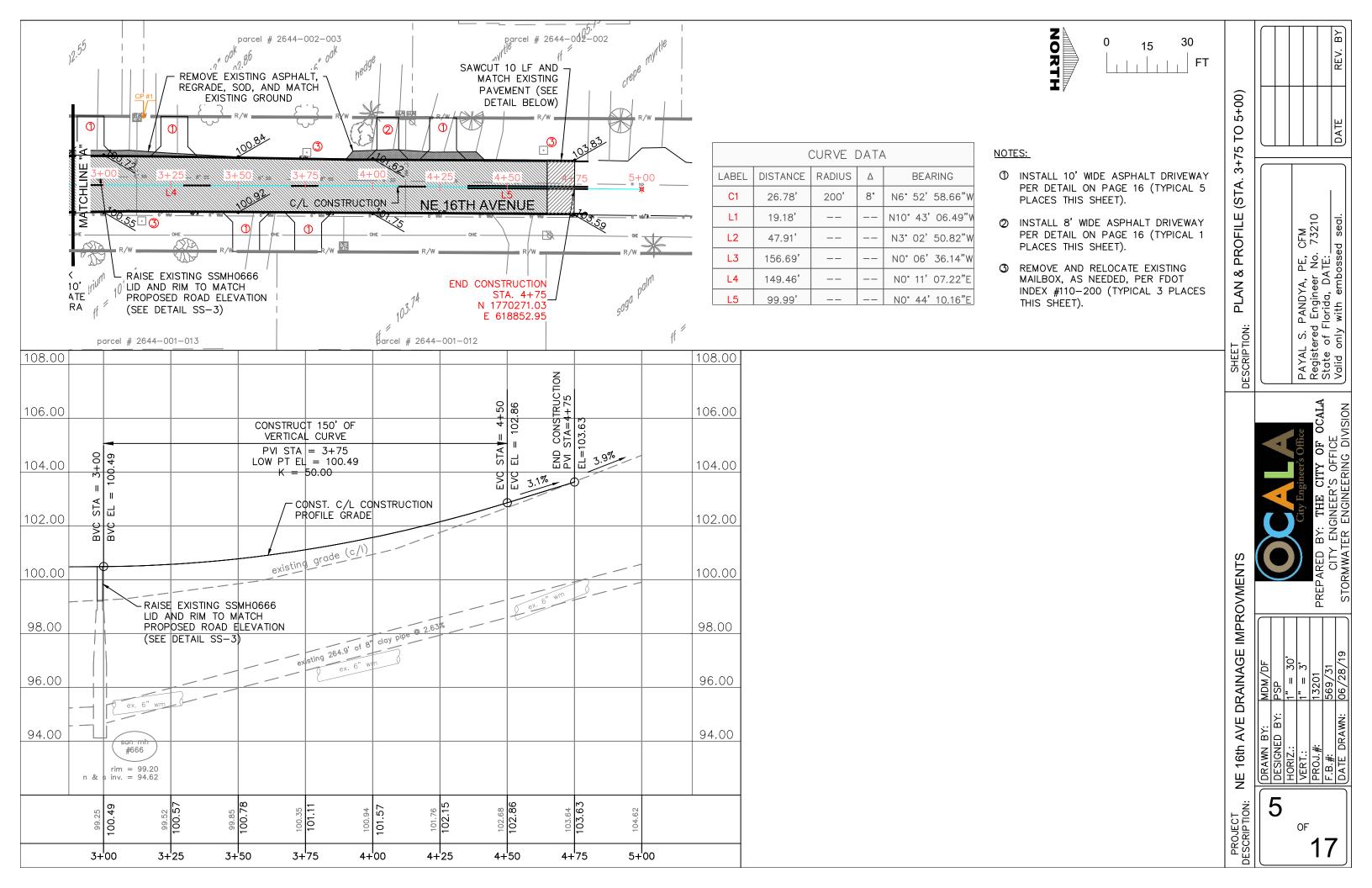
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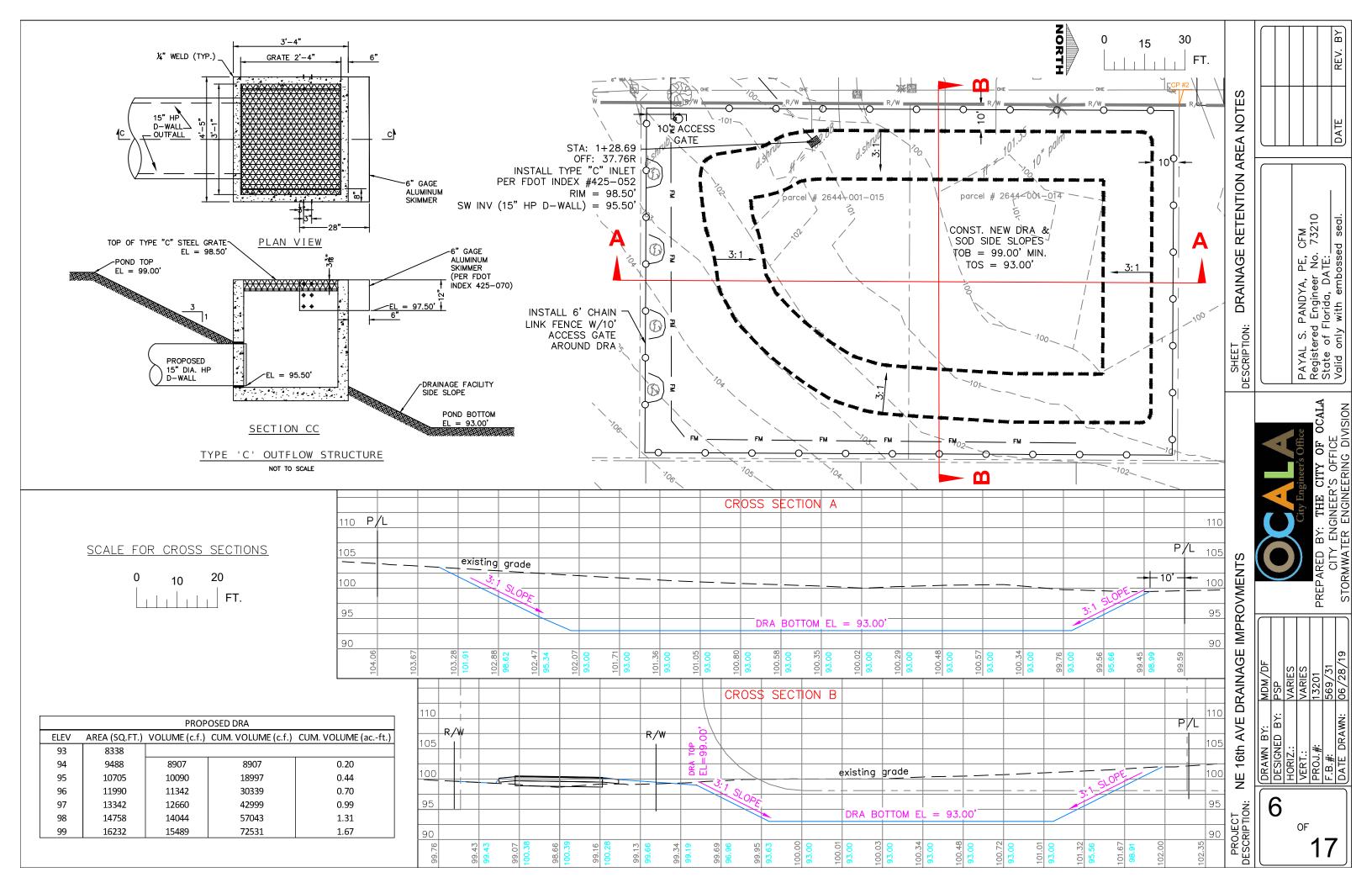
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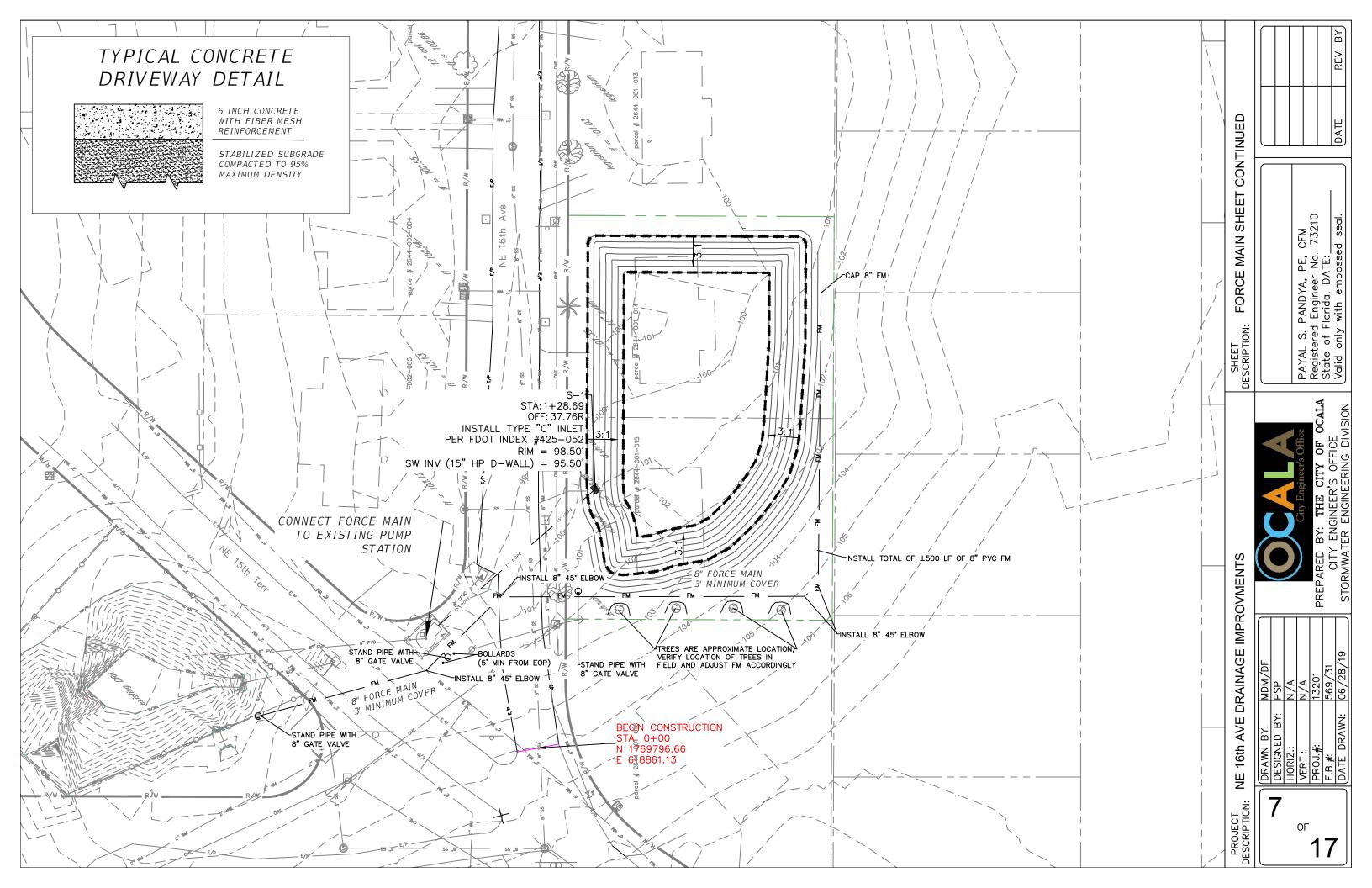
PREPARED BY: THE CITY ENGINEER'S STORMWATER ENGINE PREP,

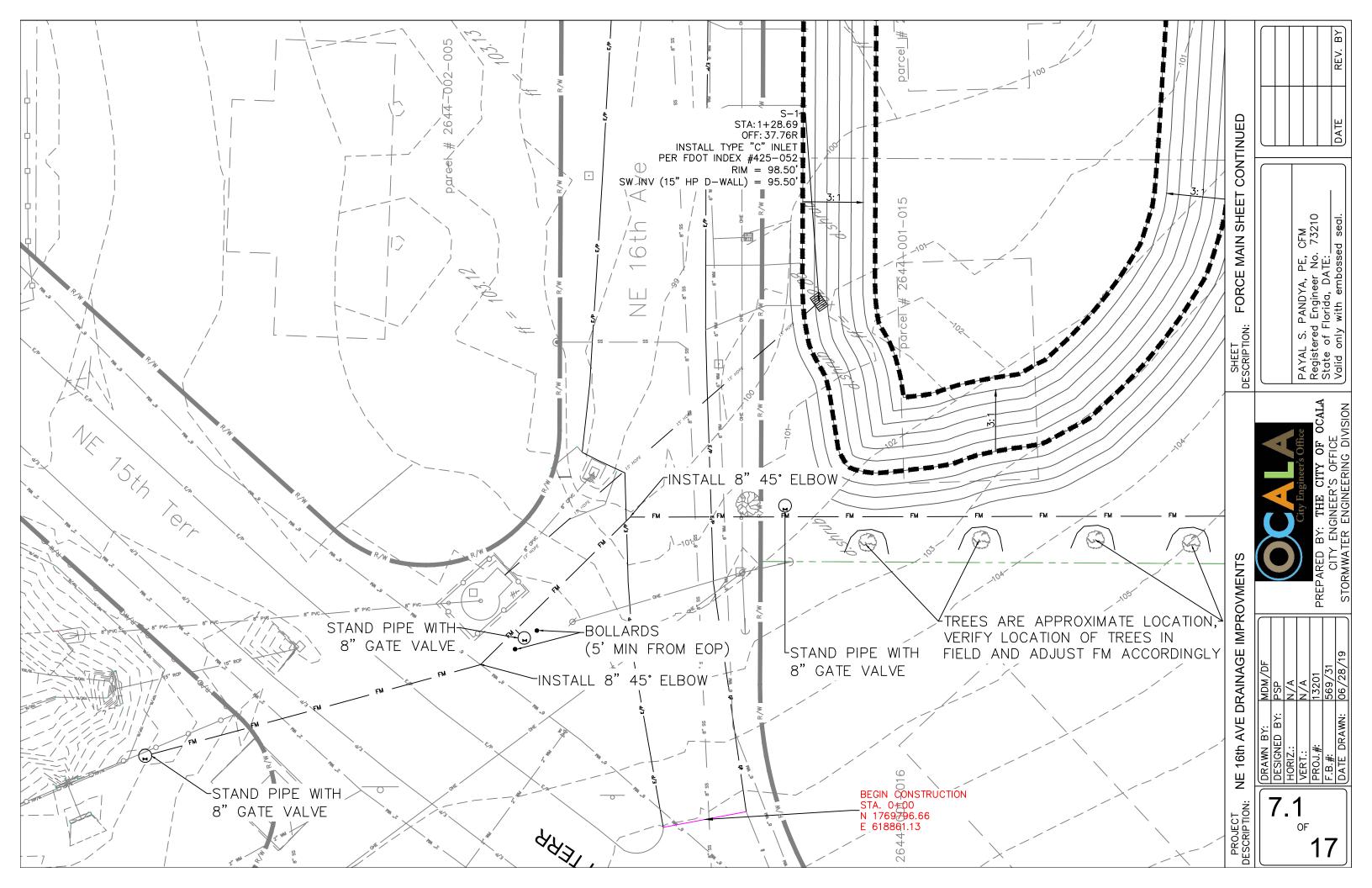
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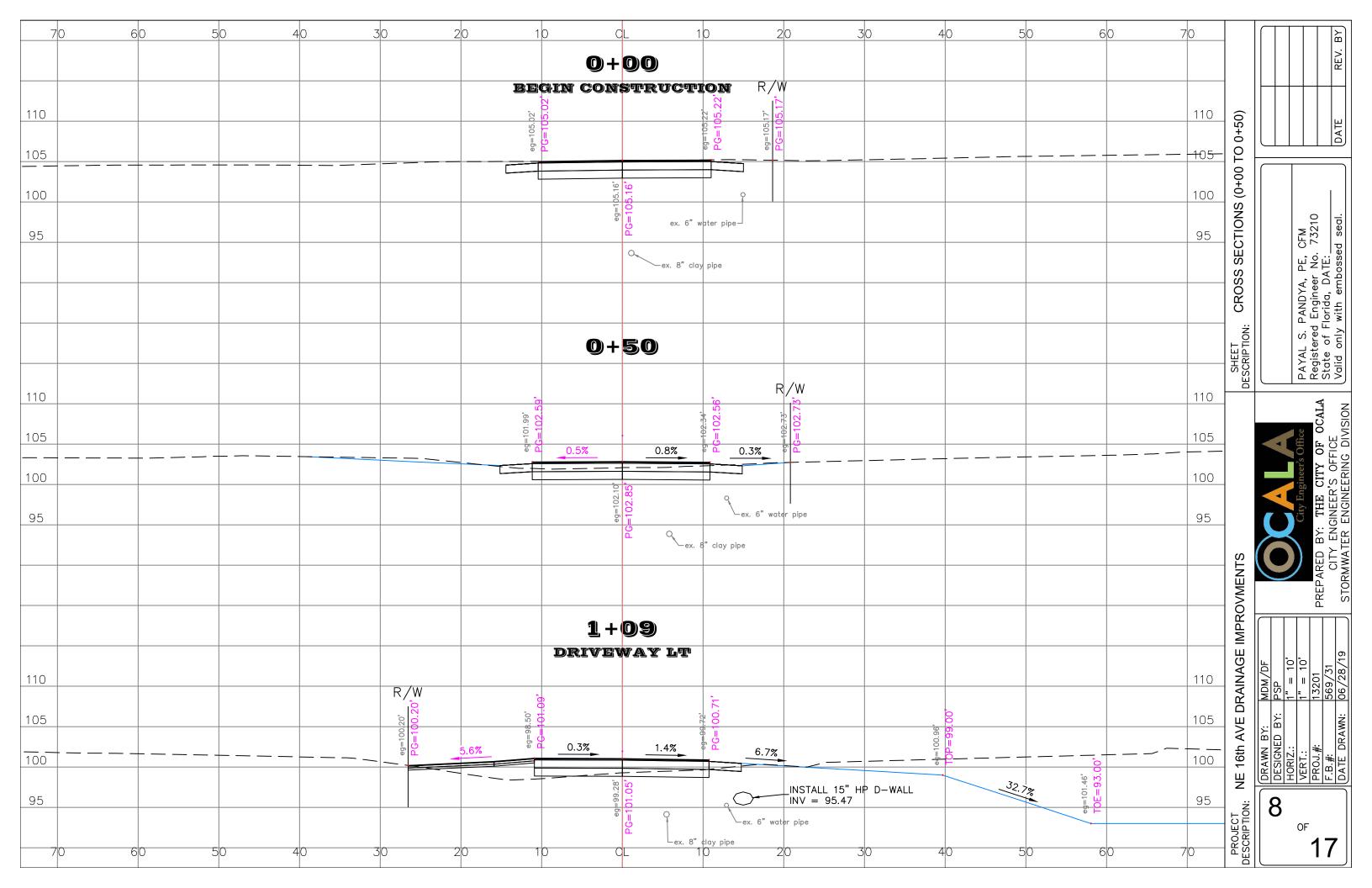


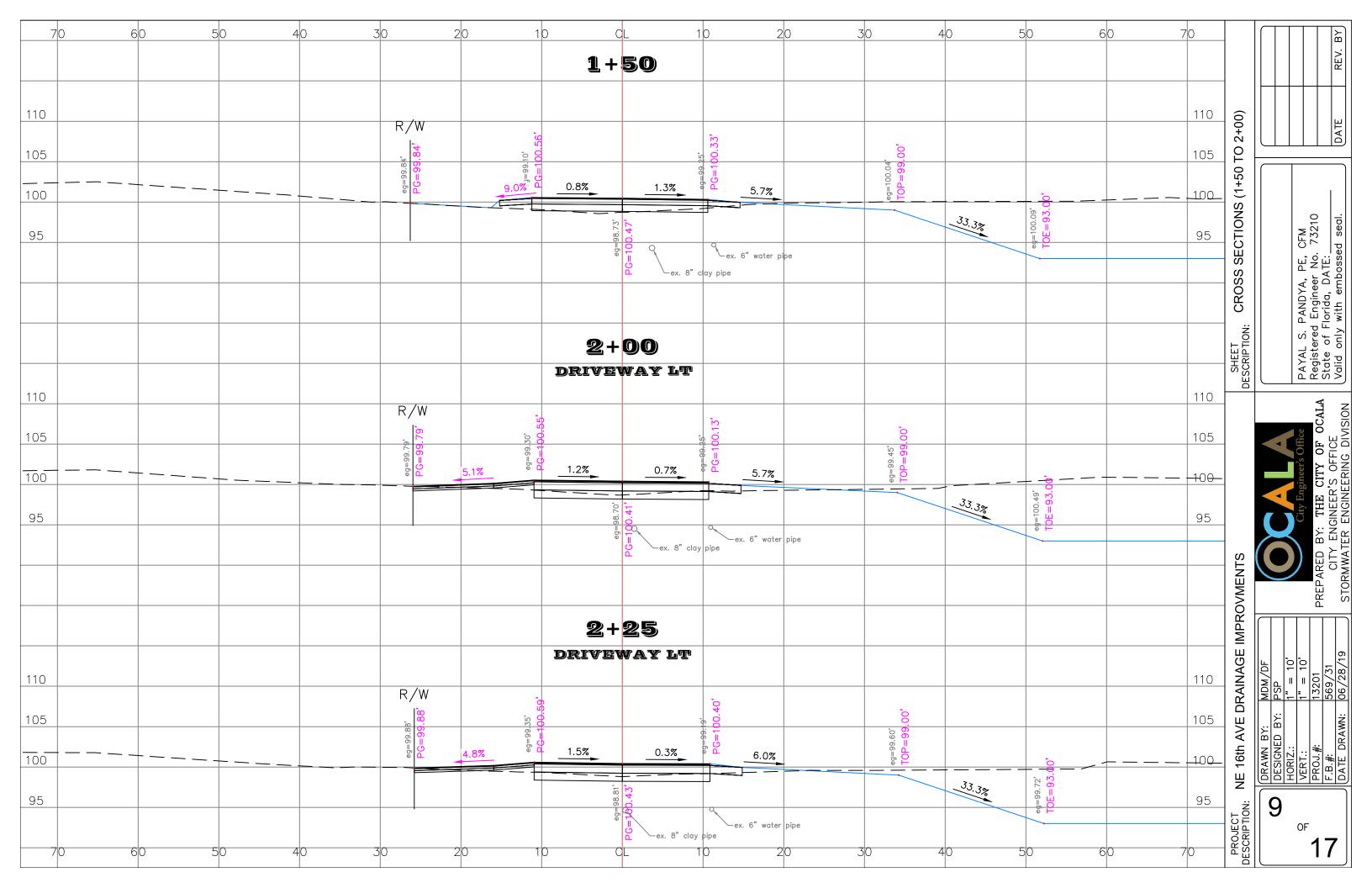


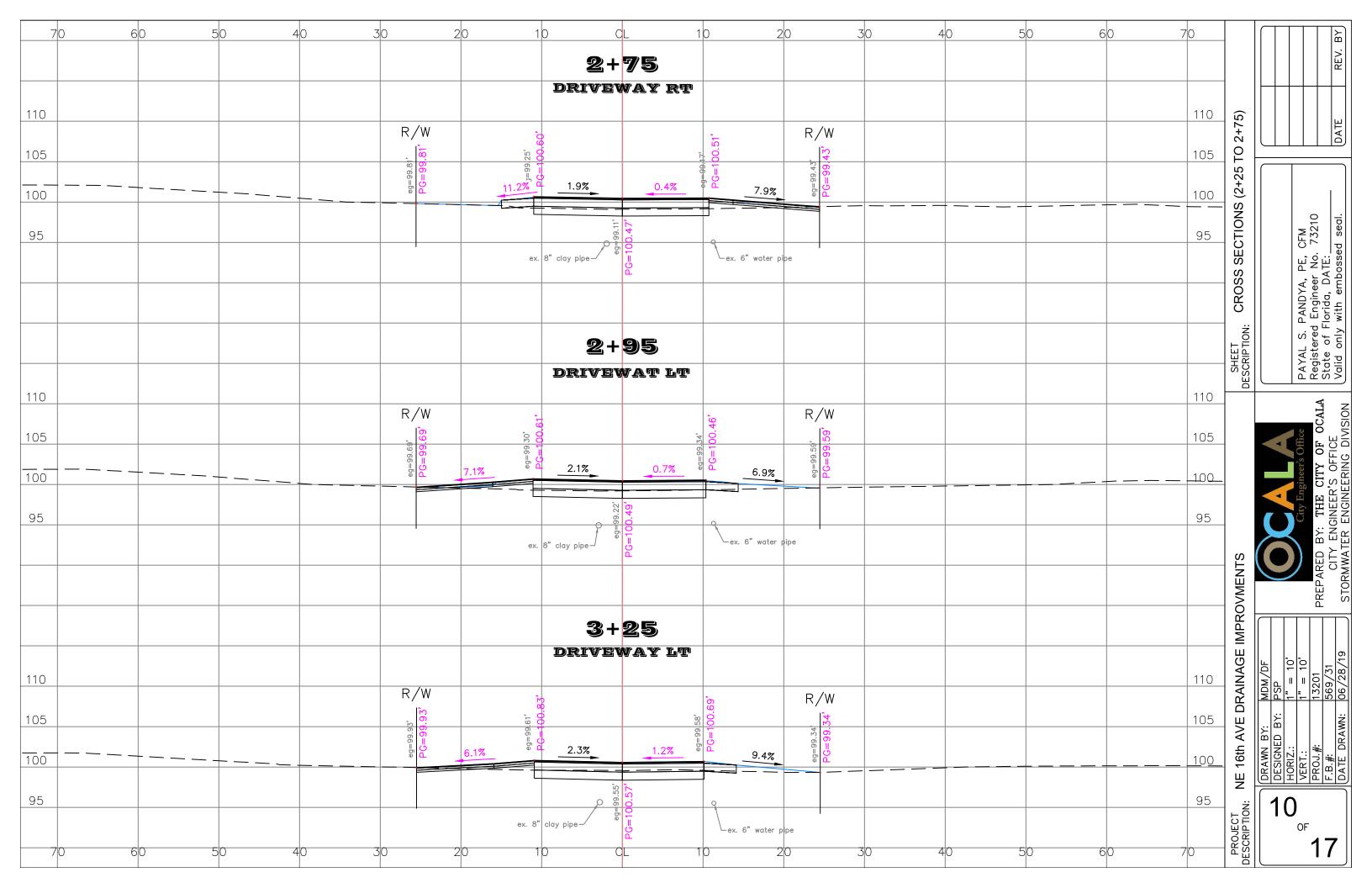


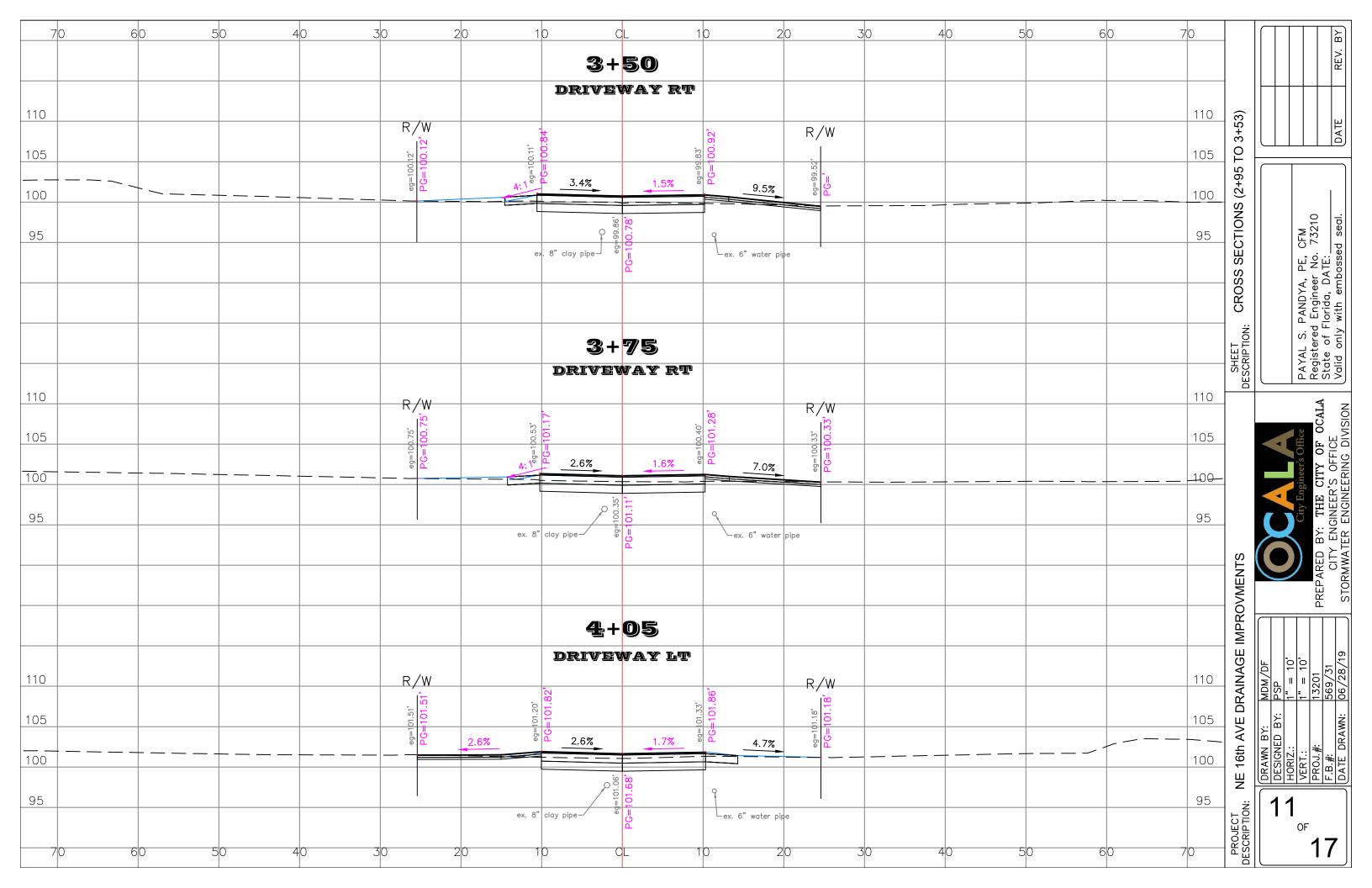


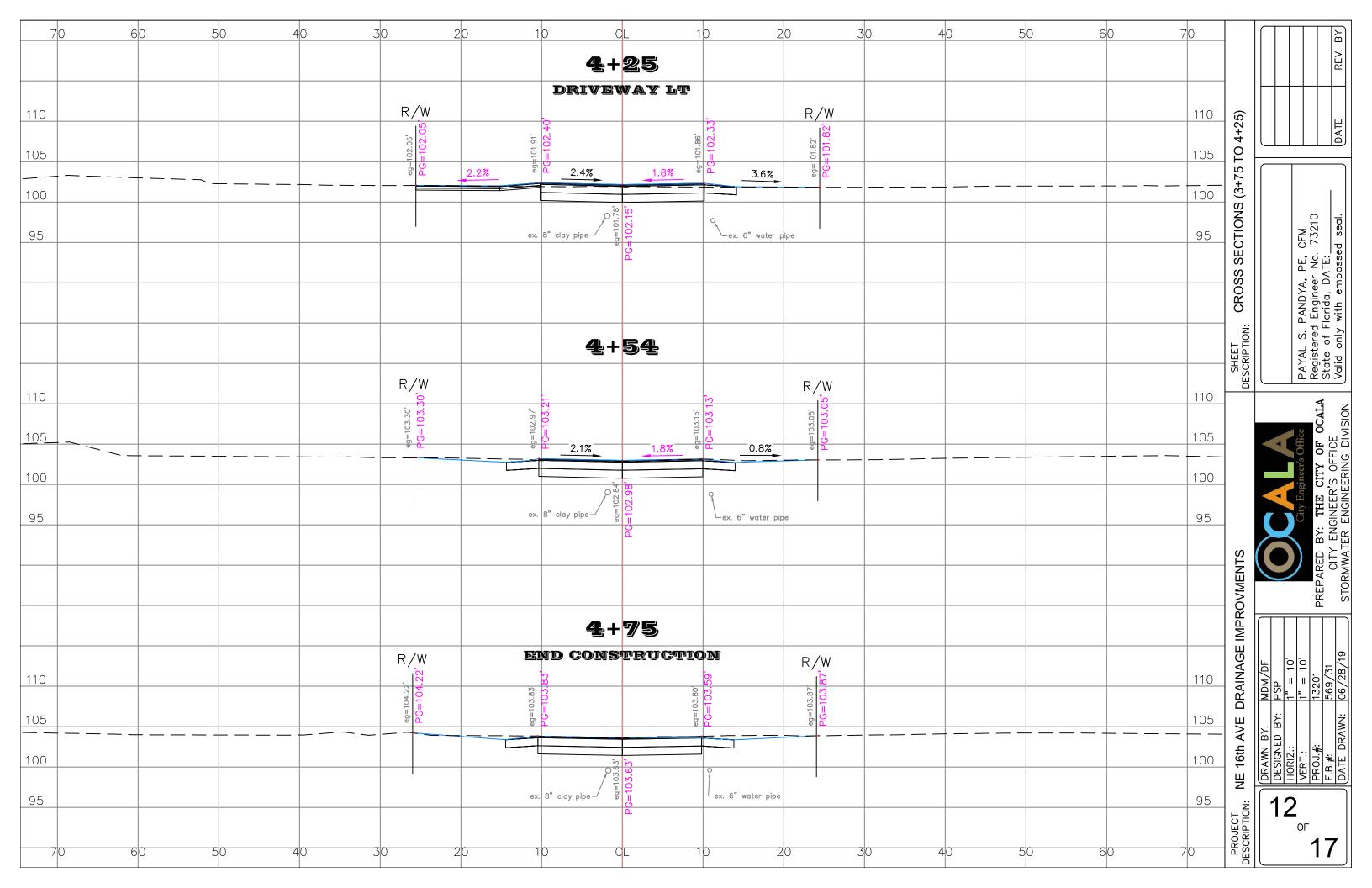


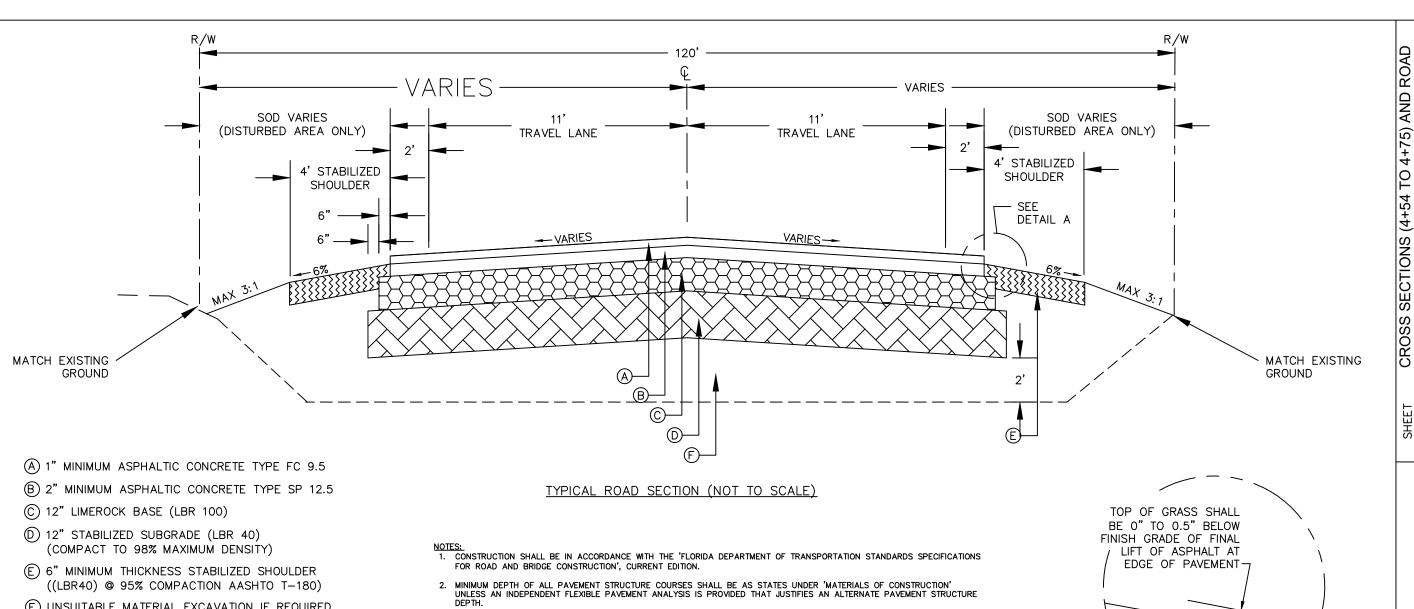




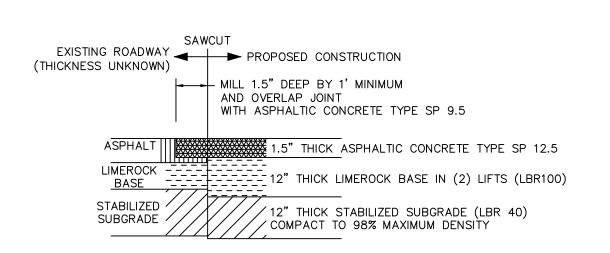








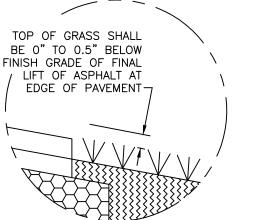
- 3. REINFORCED CONCRETE PIPE (RCP) SHALL BE PROVIDED FOR ALL STORM SEWER PIPE PLACED UNDER PAVEMENT OR UNDER CURB UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- 4. MAXIMUM BACK SLOPE: 3:1
- 5. P.G. MEANS 'PROFILE GRADE'. C/L MEANS 'CENTERLINE'. R/W MEANS 'RIGHT OF WAY'



(F) UNSUITABLE MATERIAL EXCAVATION IF REQUIRED

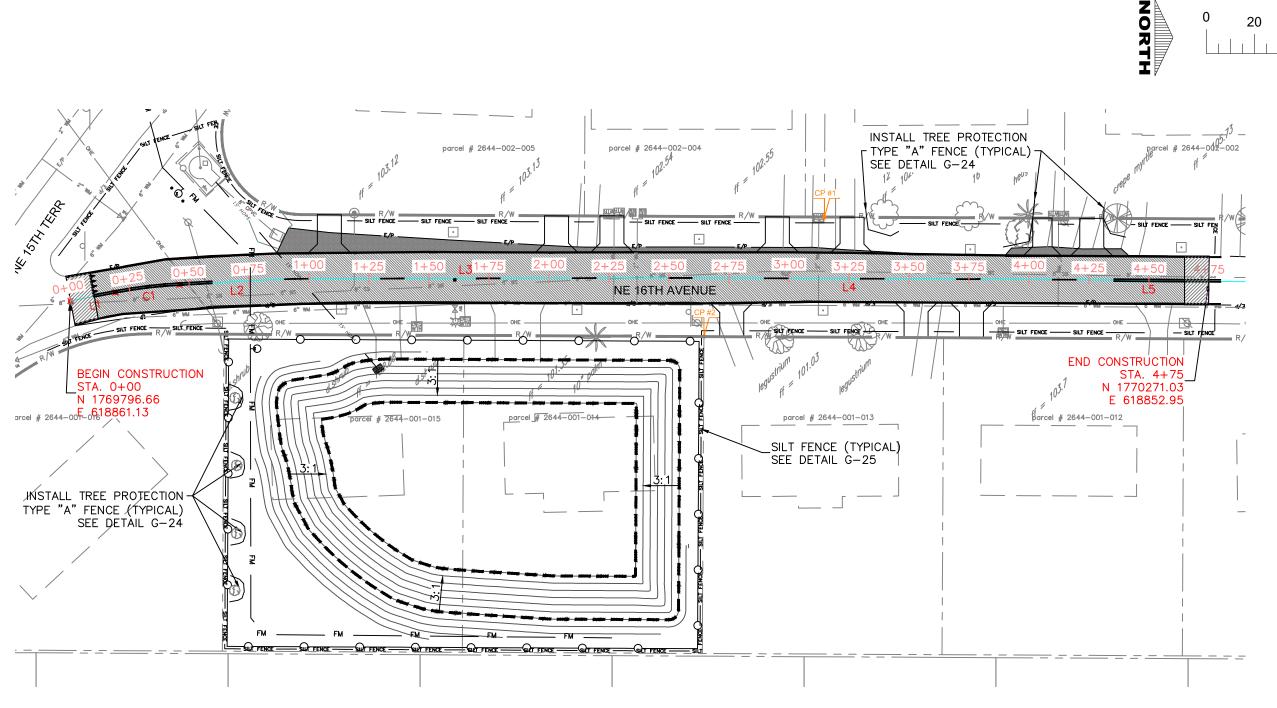
## SAWCUT AND MATCH EXISTING PAVEMENT DETAIL

(NOT TO SCALE)



DETAIL A (TYP.) NOT TO SCALE

PREPARED BY: THE C CITY ENGINEER'S STORMWATER ENGINEE DRAINAGE IMPROVMENTS PREP, 16th AVE 빌 PROJECT ESCRIPTION:



#### NOTES:

- \*CONTRACTOR SHALL PERIODICALLY SWEEP EXISTING ON-SITE PAVED SURFACES AS WELL AS ALL ABUTTING CITY STREETS, COUNTY ROADS, AND STATE HIGHWAYS (AS APPROPRIATE FOR THIS PARTICULAR PROJECT) TO KEEP THOSE SURFACES IN A SUBSTANTIALLY SEDIMENT-FREE CONDITION. SWEEPING SHALL BE DONE ON A PERIODIC, AS-NEEDED BASIS THROUGHOUT THE WORK WEEK INCLUDING, MOST IMPORTANTLY, AFTER EVERY RAIN EVENT AND EVERY FRIDAY AFTERNOON PRIOR TO CEASING WORK FOR THE WEEK.
- \*CONTRACTOR SHALL DEVELOP AND IMPLEMENT A PLAN TO ASSURE THAT ALL WASTE, SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASH-OUT, CHEMICALS, LITTER, AND SANITARY WASTE, ARE PROPERLY CONTROLLED WHILE ON-SITE, AND TRANSPORTED AND DISPOSED OF (OFF-SITE) IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS. NO WASTE MATERIALS OF ANY KIND ARE PERMITTED TO BE BURIED ON-SITE OR DISCHARGED TO SURFACE WATERS OF THE STATE OR TO THE CITY'S STORMWATER SYSTEM.
- \*ALL MATERIALS, MACHINERY, AND VEHICLES SHALL BE STORED ON-SITE IN AN ORDERLY, ORGANIZED FASHION.

DATUM '88

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E = 618826.2907

EL = 98.9724X4 NO ID

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DRAINAGE IMPROVMENTS

16th AVE

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PROJECT ESCRIPTION:

PLAN

**PROTECTION** 

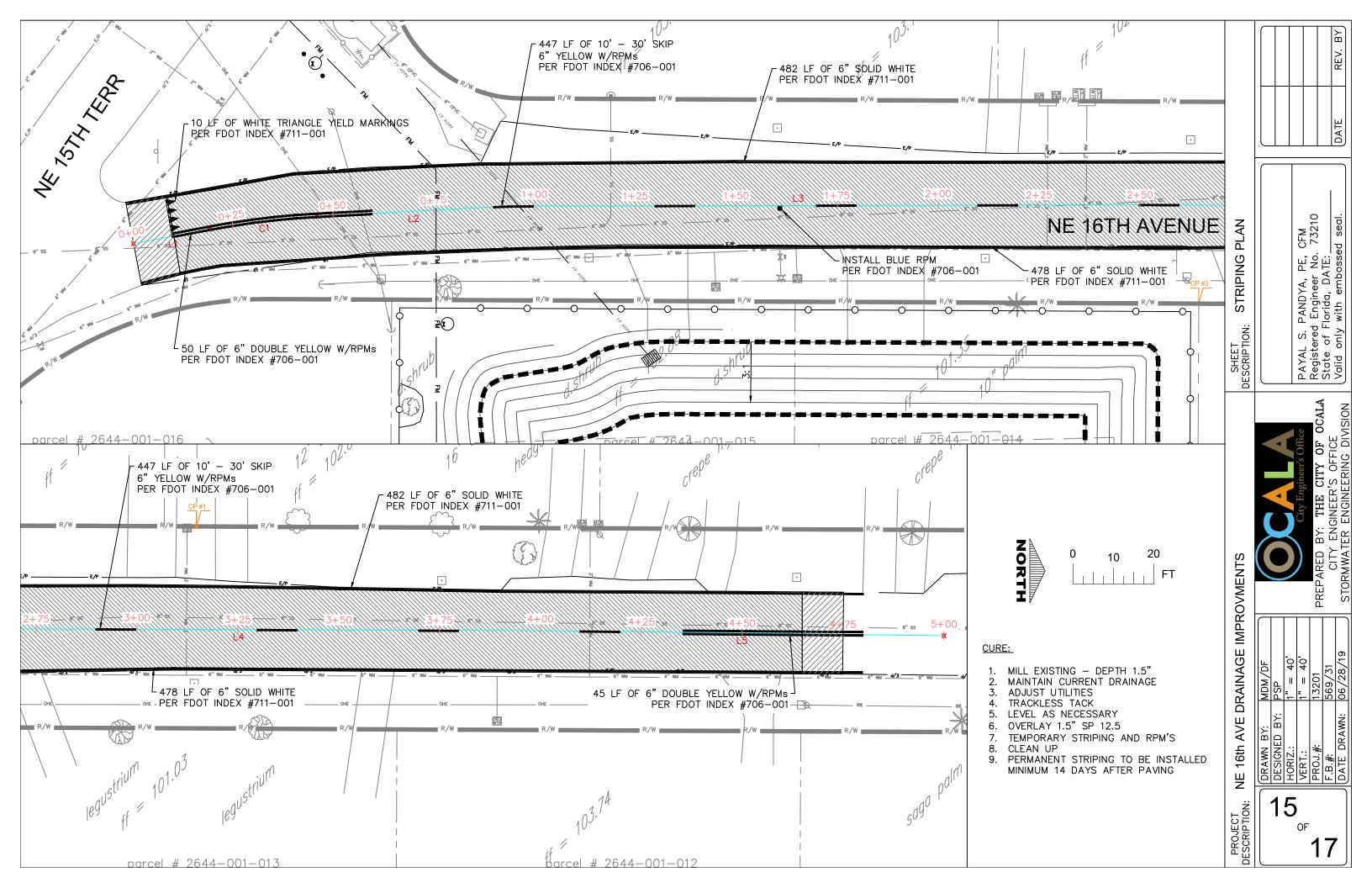
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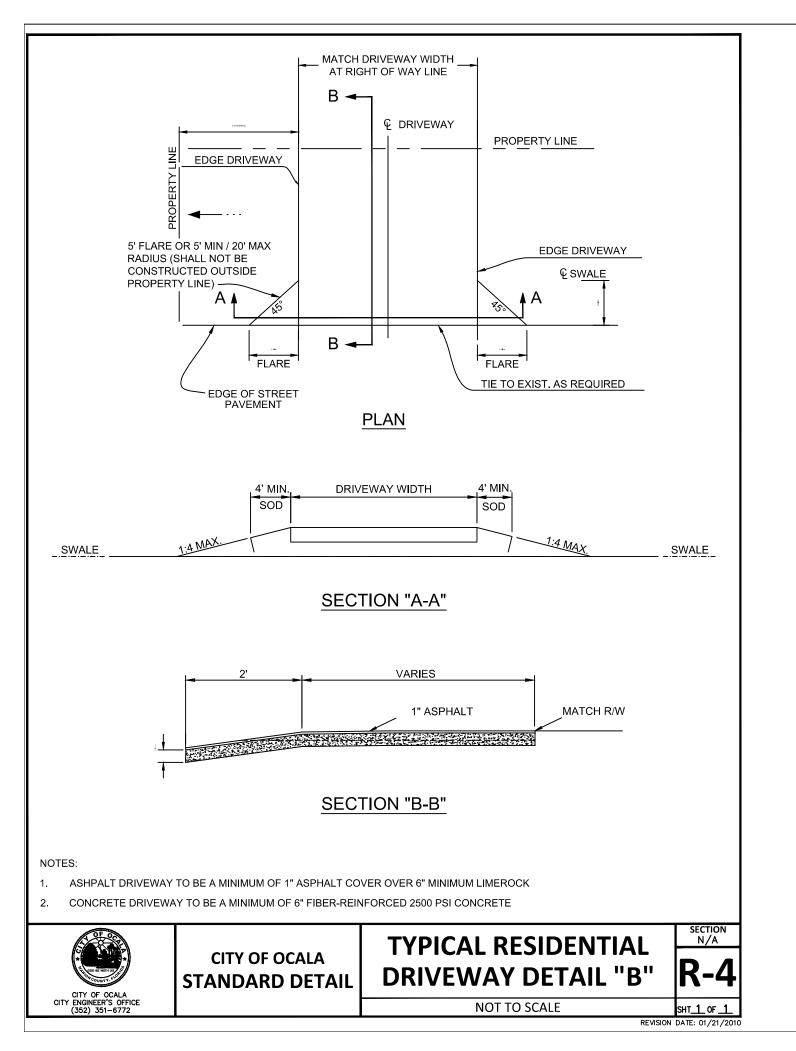
STORMWATER

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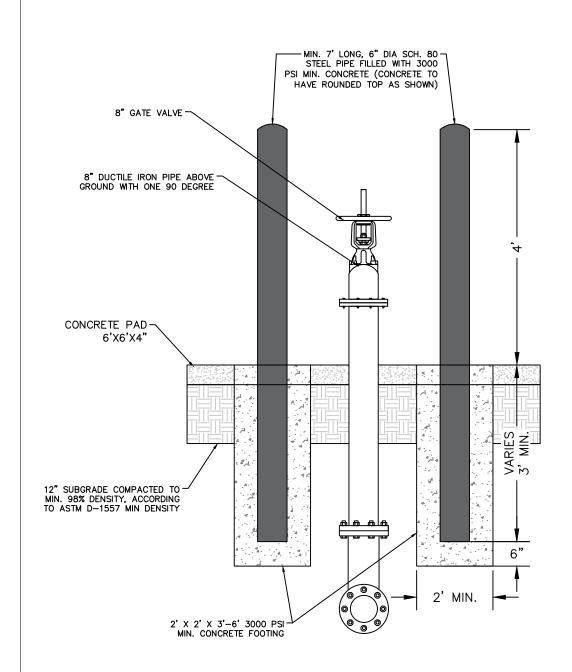
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PREPARED BY: THE C CITY ENGINEER'S STORMWATER ENGINEE

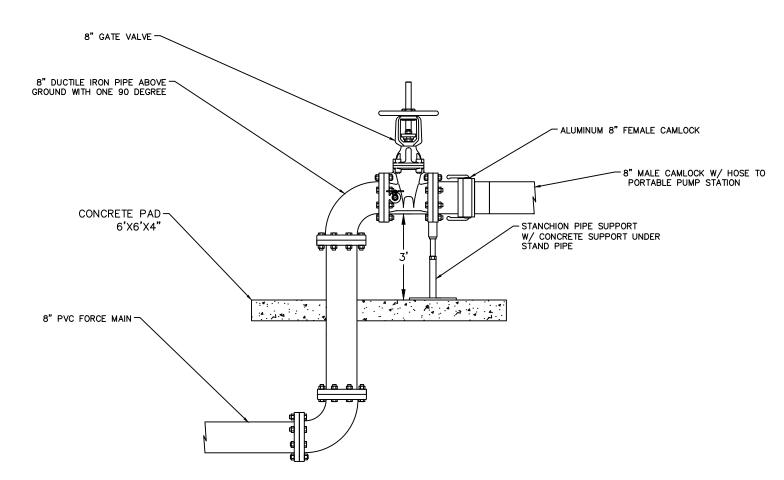




**DETAILS SHEET** PREPARED BY: THE CITY OF OCALA CITY ENGINEER'S OFFICE STORMWATER ENGINEERING DIVISION NE 16th AVE DRAINAGE IMPROVMENTS 16 PROJECT DESCRIPTION: OF



STAND PIPE DETAIL



STAND PIPE DETAIL

CONTINUED SHEET DETAILS NE 16th AVE DRAINAGE IMPROVMENTS PROJECT DESCRIPTION:

PREPARED BY: THE CITY OF OCALA CITY ENGINEER'S OFFICE STORMWATER ENGINEERING DIVISION

OF