

# PAC Sewer Piping Repair-Replacement

Owner




Bid Documents  
06/11/2024  
Moses Project #23131



 Location Map

**Project Narrative:**  
The purpose of this project is to repair and replace the site sanitary sewer piping serving the campus.

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**MOSES ENGINEERING**  
2209 NW 40th Terrace, Ste A P 352-372-1911  
Gainesville, Florida 32605 F 352-372-0186  
FL License EB-0003097 [www.moses-eng.com](http://www.moses-eng.com)



**CHW**  
Professional Consultants

11801 Research Drive  
Alachua, Florida 32615  
(352) 331-1976  
[www.chw-inc.com](http://www.chw-inc.com)

est. 1988 **FLORIDA**  
CA-5075

GENERAL NOTES

1. THE TOPOGRAPHIC AND EXISTING INFORMATION SHOWN HEREON WERE TAKEN FROM A TOPOGRAPHIC SURVEY PREPARED BY CHW, AND DATED JULY 9, 2010.
2. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAS BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR ACCURACY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE NECESSARY ARRANGEMENTS FOR ANY RELOCATION OF THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING ANY UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLANS OR LOCATED BY THE UTILITY COMPANY. THE RESPECTIVE UTILITY COMPANIES SHALL RELOCATE ALL UTILITIES THAT INTERFERE WITH THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY COMPANIES DURING THE RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
3. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE APPROPRIATE UTILITY COMPANIES IN ORDER TO ALLOW MARKING OF THE LOCATIONS OF EXISTING UNDERGROUND FACILITIES IN ADVANCE OF CONSTRUCTION BY CALLING THE FLORIDA SUNSHINE STATE ONE-CALL CENTER, INC. AT 1-800-432-4770 OR 811. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY "SUNSHINE" 48 HOURS PRIOR TO ANY CLEARING OF CONSTRUCTION TO IDENTIFY ALL UTILITY LOCATIONS. NO CONSTRUCTION ACTIVITY MAY OCCUR UNTIL THE UTILITIES HAVE BEEN PROPERLY MARKED.
4. THE CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL LOCATION AND VERTICAL LOCATION OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF THE PROJECT ENVELOPE SHOWN PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL CALL ALL UTILITY COMPANIES TO HAVE THE LOCATIONS OF ALL UTILITIES FIELD MARKED PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONTINUING CONSTRUCTION.
5. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING FACILITIES, ABOVE OR BELOW GROUND THAT MAY OCCUR AS A RESULT OF THE WORK PERFORMED BY THE CONTRACTOR.
6. ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS BEFORE COMMENCING CONSTRUCTION WORK, UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. ADDITIONAL COSTS ARE INCIDENTAL TO OTHER CONSTRUCTION AND NO EXTRA COMPENSATION WILL BE ALLOWED.
7. ALL WORK PERFORMED SHALL COMPLY WITH THE REGULATIONS AND ORDINANCES OF THE VARIOUS GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK INCLUDING LANDSCAPING.
8. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS OF THE VARIOUS GOVERNMENTAL AGENCIES. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION AND SCHEDULE INSPECTIONS ACCORDING TO AGENCY AND/OR MUNICIPALITY INSTRUCTIONS.
9. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH AND ENFORCE ALL APPLICABLE SAFETY REGULATIONS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXCAVATIONS AGAINST COLLAPSE AND SHALL PROVIDE BRACING, SHEETING OR SHORING AS NECESSARY. TRENCHES SHALL BE KEPT DRY WHILE DEPTHS ARE BEING PLACED. DEWATERING SHALL BE USED AS REQUIRED, AND PERMITTED THROUGH LOCAL GOVERNMENTAL AGENCIES AND WATER MANAGEMENT DISTRICT PER CURRENT REGULATIONS AT THE SOLE COST OF THE CONTRACTOR.
11. CONTRACTOR TO REVIEW GEOTECHNICAL REPORT AND BORINGS PRIOR TO BIDDING THE PROJECT AND FOLLOW OUTLINED CONSTRUCTION TECHNIQUES.
12. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING APPLICABLE TESTING WITH THE SERVICES OF AN APPROVED TESTING LABORATORY AND/OR SOILS ENGINEER, APPLICABLE REGULATORY AGENCIES, AND AS MAY BE FOUND IN THE ENGINEERING CONSTRUCTION DRAWINGS OR SPECIFICATIONS. CONTRACTOR TO VERIFY ALL TESTING WITH THE OWNER PRIOR TO COMMENCING CONSTRUCTION. UPON COMPLETION OF THE WORK, THE TESTING LABORATORY AND/OR SOILS ENGINEER MUST SUBMIT TO THE OWNER'S ENGINEER CERTIFICATIONS STATING THAT ALL REQUIREMENTS HAVE BEEN MET.
13. INSTALL SILT FENCE PRIOR TO SITE DEMOLITION OR NEW SITE CONSTRUCTION. INSTALL SILT FENCE PER FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL AND PROVIDE TOE-IN. THE CONTRACTOR SHALL MAINTAIN THE SILT FENCE IN WORKING ORDER THROUGHOUT THE CONSTRUCTION PHASE. THE PROJECT SILT FENCE SHALL BE INSPECTED DAILY AND ANY CORRECTIVE MEASURES SHALL BE COMPLETED WITHIN 24 HOURS.
14. ALL TREE BARRICADES AND SILT FENCING SHALL BE INSTALLED A PRIOR TO COMMENCEMENT OF ANY DEMOLITION OR CONSTRUCTION ACTIVITIES.
15. THE CONTRACTOR IS TO PREPARE THE SITE PRIOR TO BEGINNING ACTUAL CONSTRUCTION IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
16. ALL DELETERIOUS MATERIAL (I.E. MUCK, PEAT, BURIED DEBRIS) IS TO BE EXCAVATED IN ACCORDANCE WITH THESE PLANS OR AS DIRECTED BY THE OWNER'S ENGINEER OR OWNER'S SOIL TESTING COMPANY. DELETERIOUS MATERIAL IS TO BE STOCKPILED AND REMOVED FROM THE SITE. EXCAVATED AREAS ARE TO BE BACKFILLED WITH APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE AREAS.
17. CONTRACTOR SHALL CLEAR AND GRUB ONLY THOSE PORTIONS OF THE SITE NECESSARY FOR CONSTRUCTION. DISTURBED AREAS SHALL BE SODDED, SEEDED, MULCHED, OR PLANTED WITH OTHER APPROVED LANDSCAPE MATERIAL, AS DIRECTED BY THESE PLANS, IMMEDIATELY FOLLOWING CONSTRUCTION PER LOCAL INSPECTOR.
18. WORK BEING PERFORMED UNDER THIS CONTRACT SHALL INTERFACE SMOOTHLY WITH OTHER WORK BEING PERFORMED ON THE SITE BY OTHER CONTRACTORS AND/OR UTILITY COMPANIES. IT WILL BE NECESSARY FOR THE CONTRACTOR TO COORDINATE AND SCHEDULE HIS ACTIVITIES, WHERE NECESSARY, WITH OTHER CONTRACTORS AND UTILITY COMPANIES.
19. THE GOVERNING STANDARDS AND SPECIFICATIONS, UNLESS STATED OTHERWISE SHALL BE PER FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD PLANS (FY 2023-24 ROAD CONSTRUCTION), AND STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION DATED JANUARY 2018, AS AMENDED BY CONTRACT DOCUMENTS. ALL MATERIALS AND METHODS SHALL MEET FDOT SPECIFICATIONS AND SHALL BE PRODUCED OR OBTAINED FROM AN FDOT APPROVED SOURCE.
20. ALL NEW TRAFFIC CONTROL DEVICES (SIGNS AND PAVEMENT MARKINGS) SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND FDOT STANDARDS.
21. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PROPER BENCHMARKS ON-SITE. EXISTING BENCH MARKS SCHEDULED FOR REMOVAL SHALL BE RELOCATED AT CONTRACTORS EXPENSE AND RE-ESTABLISHED BY A LICENSED SURVEYOR.
22. ALL HANDICAP RAMPS SHALL COMPLY WITH THE FLORIDA ACCESSIBILITY CODE AND AMERICANS WITH DISABILITIES ACT.
23. A PRE-CONSTRUCTION CONFERENCE SHALL BE REQUIRED. THE CONTRACTOR, ENGINEER OF RECORD, AND THE OWNER SHALL MEET PRIOR TO INITIATION OF SITE CONSTRUCTION.
24. ANY CHANGE ORDER REQUESTS, SITE REVISIONS, AND PAY REQUESTS MUST BE SUBMITTED TO AND APPROVED BY THE ENGINEER OF RECORD.
25. CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING AS NEEDED THROUGHOUT ALL CONSTRUCTION ACTIVITIES COVERED BY THESE PLANS. DEWATERING SHALL BE DONE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS, 2018 EDITION, SECTION 120.
26. THE CONTRACTOR IS RESPONSIBLE FOR THE PERFORMANCE AND COST OF ALL CLEARING AND GRUBBING AND ALL WORK OF REMOVAL, DISPOSAL, AND REPAIR OR REPLACEMENT OF EXISTING IMPROVEMENTS WHERE SHOWN IN THE PLANS, OR ORDERED BY THE ENGINEER TO BE REMOVED, OR WHERE REQUIRED BECAUSE OF THE CONSTRUCTION OPERATIONS, IN ORDER TO CONSTRUCT THE PROPOSED IMPROVEMENTS (THIS INCLUDES BUT IS NOT LIMITED TO PROPOSED PIPING, STRUCTURES, UTILITIES, PAVING, CURBING, ETC.).
27. CONTRACTOR TO COORDINATE WITH PROJECT OWNER FOR COMPLETION OF AS-BUILT SURVEYS PRIOR TO PROJECT / PERMIT CLOSE-OUT.

DEMOLITION GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO DISPOSE OF ALL DEMOLITION MATERIALS IN A SAFE AND LAWFUL MANNER. THE CONTRACTOR SHALL SALVAGE TO THE OWNER ANY ITEM AS DETERMINED BY THE OWNER. ONCE DEMOLISHED, MATERIAL SHALL BE DISPOSED OF PROPERLY AND IMMEDIATELY.
2. REMOVE ALL IMPROVEMENTS DEFINED ON THE DEMOLITION PLAN. SALVAGE ITEMS TO OWNER AS DEFINED BY THE OWNER'S REPRESENTATIVE AND CONSTRUCTION DOCUMENT SPECIFICATIONS.
3. EXISTING PAVEMENT AND SIDEWALK EDGES THAT BORDER NEW CONSTRUCTION OR DEMOLITION ARE TO BE SAW-CUT TO PROVIDE A SMOOTH TRANSITION.
4. ALL EXISTING TREES ARE TO REMAIN UNLESS OTHERWISE NOTED.
5. ROOTS LARGER THAN 1 INCH IN DIAMETER ON TREES TO BE PRESERVED THAT ARE ENCOUNTERED DURING CONSTRUCTION MUST BE CUT CLEANLY AND COVERED OVER WITH SOIL BY THE END OF THE WORKING DAY.
6. ALL ASPHALT AND LIMEROCK WILL BE COMPLETELY REMOVED FROM AREAS THAT WILL BE LANDSCAPED. IN PARTICULAR, AREAS WHERE ASPHALT WILL BE REMOVED MUST HAVE THE TOP HARD SURFACE, LIMEROCK, AND COMPACTED SOIL REMOVED. REPLACEMENT SOIL SHALL BE CLEAN DEEP FILL OF PH 5.5 - 6.5. THE DEPTH OF UNCOMPACTED SOIL PRIOR TO PLANTING MUST BE AT LEAST 3 FEET TO ACCOMMODATE FUTURE TREE ROOT GROWTH. NO LIMEROCK, LARGE STONES, OR OTHER CONSTRUCTION DEBRIS CAN REMAIN IN AREAS TO BE LANDSCAPED.

PAVING, GRADING, AND DRAINAGE GENERAL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL PRACTICES DURING CONSTRUCTION TO MINIMIZE ON-SITE EROSION/SEDIMENTATION AND TO PROTECT AGAINST DAMAGE TO OFF-SITE PROPERTY. THE FOLLOWING PRACTICES SHALL BE EMPLOYED:

A. EROSION AND SEDIMENTATION CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. AREAS OF OFF-SITE DISCHARGE DURING CONSTRUCTION SHALL BE PROTECTED WITH A SEDIMENT BARRIER PER FLORIDA STORMWATER EROSION AND SEDIMENTATION CONTROL INSPECTOR'S MANUAL TO PREVENT OFF-SITE DISCHARGE OF SEDIMENTS. A SILT BARRIER SHALL SPECIFICALLY BE REQUIRED, CONSTRUCTED, AND MAINTAINED AS INDICATED ON THIS SHEET. TEMPORARY SEED AND MULCH SHOULD BE USED TO CONTROL ON-SITE EROSION WHEN IT IS NOT PRACTICAL TO ESTABLISH PERMANENT VEGETATION. SOD SHALL BE PLACED AS EARLY AS POSSIBLE ON ALL SLOPES STEEPER THAN 5 (FT) HORIZONTAL TO 1 (FT) VERTICAL. SOD SHALL BE PINNED AS REQUIRED. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MAINTAINED IN WORKING ORDER THROUGHOUT THE CONSTRUCTION PHASE. THE CONTRACTOR SHALL INSPECT AND REPAIR AS NECESSARY THE EROSION/SEDIMENTATION PROTECTION AT THE END OF EACH WORKING DAY.

B. NOTE: EROSION/SEDIMENTATION CONTROL SHALL BE PLACED PRIOR TO SITE EXCAVATION AND SHALL REMAIN IN PLACE UNTIL SITE VEGETATION AND LANDSCAPING IS COMPLETE.

C. ALL INLET STRUCTURES AND PIPE SHALL BE PROTECTED FROM SILTATION BY CONSTRUCTING INLET PROTECTION AS DEFINED BY THESE PLANS OR IN THE FDOT STANDARDS. IF SILTATION OCCURS, THE CONTRACTOR IS RESPONSIBLE TO REMOVE SILTATION AS PART OF THE BASE CONTRACT AT NO ADDITIONAL COST TO THE OWNER.

D. PERMANENT VEGETATIVE STABILIZATION SHALL BE APPLIED ON FINE GRADED SITES AS SOON AS PRACTICAL. TEMPORARY SEEDING SHOULD BE EMPLOYED TO PREVENT EXPOSURE OF BARREN SOILS UNTIL PERMANENT VEGETATION CAN BE APPLIED.

E. ALL SLOPES 1:3 OR STEEPER REQUIRE LAPPED OR PEGGED SOD.

F. EROSION, SEDIMENT AND TURBIDITY CONTROL ARE THE RESPONSIBILITY OF THE CONTRACTOR. THESE DELINEATED MEASURES ARE THE MINIMUM REQUIRED, WITH ADDITIONAL CONTROLS TO BE UTILIZED AS NEEDED, DEPENDENT UPON ACTUAL SITE CONDITIONS AND CONSTRUCTION OPERATION.

G. ALL SYNTHETIC BALES, SILT FENCE, AND OTHER EROSION CONTROL MEASURES SHALL BE REMOVED AT THE COMPLETION OF THE PROJECT.
2. CONTRACTOR SHALL SUBMIT FOR REVIEW TO THE OWNER AND OWNER'S ENGINEER SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS TO BE USED ON THIS SITE. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE. ENGINEER'S APPROVAL OF A SHOP DRAWING DOES NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY FOR THE PERFORMANCE OF THE ITEM.
3. THE COST OF ALL TESTING OF COMPACTION AND OTHER REQUIRED TESTS SHALL BE PAID BY THE CONTRACTOR AND MADE AVAILABLE TO THE ENGINEER OF RECORD DURING SITE INSPECTIONS.
4. GENERAL CONTRACTOR TO CONTACT ENGINEER OF RECORD AND THE OWNER REPRESENTATIVE 48 HOURS IN ADVANCE PRIOR TO BACKFILLING TRENCHES FOR FIELD INSPECTION AND PRIOR TO LAYING ASPHALT FOR FIELD INSPECTION.
5. CONTRACTOR IS TO SUBMIT FDOT APPROVED ASPHALT DESIGN MIXES TO THE OWNER'S REPRESENTATIVE AND ENGINEER OF RECORD BEFORE ANY WORK IS TO COMMENCE ON PROJECT. THE MIXTURE AT THE PLANT OR ON THE ROAD SHALL NOT EXCEED 335 DEGREES. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND PROVIDE TEMPERATURE READINGS PRIOR TO LAYING ASPHALT.
6. AS DETERMINED NECESSARY AND DIRECTED BY ENGINEER OF RECORD, THE CONTRACTOR SHALL UNDERCUT ALL UNSUITABLE MATERIAL 24 INCHES BELOW THE BOTTOM OF ANY PROPOSED LIMEROCK BASE, AND SHALL BACKFILL WITH FILL MATERIAL MEETING FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. SEE FDOT INDEX 120-001 AND 120-002.
7. PROVIDE LEVEL PLATFORM IN FRONT OF ALL EGRESS DOORS. THE FLOOR SURFACE ON BOTH SIDES OF A DOOR SHALL BE AT THE SAME ELEVATION. THE FLOOR SURFACE OR LANDING ON EACH SIDE OF THE DOOR SHALL EXTEND FROM THE DOOR IN THE CLOSED POSITION A DISTANCE EQUAL TO THE DOOR WIDTH AND SHALL COMPLY WITH SECTION 4.13.6 MANEUVERING CLEARANCES AT DOORS OF THE FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION.
8. RAMPS SHALL HAVE LEVEL LANDINGS AT THE BOTTOM AND TOP OF EACH RAMP RUN. CURB RAMPS ARE NOT REQUIRED TO HAVE LANDINGS. LANDINGS SHALL HAVE THE FOLLOWING FEATURES:

A. THE LANDING SHALL BE AT LEAST AS WIDE AS THE RAMP RUN LEADING TO IT.

B. ALL LANDINGS ON RAMPS SHALL BE NOT LESS THAN 60" CLEAR, AND THE BOTTOM OF EACH RAMP SHALL HAVE NOT LESS THAN 72" OF STRAIGHT AND LEVEL CLEARANCE.

C. IF RAMPS CHANGE DIRECTION AT LANDINGS, THE MINIMUM LANDING SIZE SHALL BE 60"x60". IF A RAMP RUN HAS A RISE GREATER THAN 6" OR A HORIZONTAL PROJECTION GREATER THAN 72" THEN IT SHALL HAVE HANDRAILS ON BOTH SIDES. HANDRAILS ARE NOT REQUIRED ON CURB RAMPS. HANDRAILS SHALL BE SHOWN ON THE SITE PLAN.
11. THE CONTRACTOR SHALL STOCKPILE TOPSOIL AND CONSTRUCTION MATERIALS IN AREAS DESIGNATED BY THE OWNER.
12. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING RECORD DRAWINGS AS NOTED IN NOTE #29 UNDER SITE GENERAL NOTES.
13. ALL CONCRETE USED SHALL BE 2,500 PSI MINIMUM.
14. ALL WELLS, CLEANOUTS, MANHOLE TOPS, PULL BOX COVERS AND OTHER UTILITY APPURTENANCES IN THE AREA OF REDEVELOPMENT SHALL BE PROTECTED AND TOPS ADJUSTED TO MATCH PROPOSED GRADES.
15. CONTRACTOR SHALL SAW CUT, TACK, AND MATCH EXISTING PAVEMENT AT LOCATIONS WHERE NEW PAVEMENT MEETS ANY EXISTING PAVEMENT.
16. SOD SHALL BE PLACED AROUND ALL STRUCTURES AS DIRECTED BY THE FDOT INDEX 524-001 AND FDOT INDEX 425- AND 430- SERIES AS APPROPRIATE. ALL OTHER DISTURBED AREAS SHALL BE SEEDED AND MULCHED.
17. ALL STORM SEWER CURB AND DITCH BOTTOM INLETS SHALL CONFORM TO THE APPLICABLE FDOT INDEX. ALL DRAINAGE STRUCTURES WITH GRATES THAT ARE LOCATED IN GRASSED AREAS SHALL HAVE THE GRATE CHAINED TO THE STRUCTURE USING AN EYE BOLT AND CHAIN.
18. ALL CONCRETE STRUCTURES SHALL HAVE ALL EXPOSED EDGES CHAMFERED 3/4" AND CLASS I SURFACE FINISH.
19. ALL HDPE FITTINGS AND CONNECTORS SHALL BE WATER TIGHT. SEE SPECIFICATIONS FOR MORE INFORMATION.
20. COMPACTION OF ALL MATERIALS SHALL BE LIMITED TO STATIC MODE ONLY, UNLESS DIRECTED OTHERWISE BY THE ENGINEER OF RECORD.
21. ALL RCP PIPE JOINTS SHALL BE WRAPPED WITH FILTER FABRIC IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION SECTION 430.

WATER AND WASTEWATER GENERAL NOTES

1. MATERIALS AND CONSTRUCTION METHODS FOR WATER AND WASTEWATER SYSTEMS SHALL BE IN ACCORDANCE WITH THE LOCAL REGULATORY AGENCY CODES, PLANS, AND SPECIFICATIONS FOR CONSTRUCTION, LATEST REVISION THEREOF AND SUPPLEMENTAL SPECIFICATIONS THERETO. APPROVAL AND CONSTRUCTION OF ALL UTILITY EXTENSIONS AND CONNECTIONS MUST BE COORDINATED THROUGH THE REGULATORY AGENCY DEPARTMENT FOR PUBLIC UTILITIES.
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES TO DISCONNECT OR REMOVE THEIR FACILITIES PRIOR TO REMOVING OR DEMOLISHING ANY EXISTING STRUCTURES FROM THE SITE.
3. THE CONTRACTOR IS RESPONSIBLE FOR ANY NECESSARY UTILITY FIELD LOCATION AND RELOCATION AS REQUIRED.
4. THE COST OF ALL TESTING OF COMPACTION AND OTHER REQUIRED TESTS SHALL BE PAID BY THE CONTRACTOR AND MADE AVAILABLE TO THE ENGINEER OF RECORD DURING SITE INSPECTIONS.
5. THE CONTRACTOR SHALL PERFORM AN INFILTRATION/EXFILTRATION TEST ON GRAVITY SEWERS IN ACCORDANCE WITH THE REGULATORY JURISDICTION. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER AND SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL. COORDINATION AND NOTIFICATION OF PARTIES US THE CONTRACTOR'S RESPONSIBILITY.
6. ALL FORCE MAINS SHALL BE SUBJECT TO A HYDROSTATIC PRESSURE TEST IN ACCORDANCE WITH THE REGULATORY AGENCY HAVING JURISDICTION. SAID TESTS ARE TO BE CERTIFIED BY THE ENGINEER AND SUBMITTED TO THE REGULATORY AGENCY FOR APPROVAL. COORDINATION AND NOTIFICATION OF PARTIES IS THE CONTRACTOR'S RESPONSIBILITY.
7. CONTRACTOR SHALL SUBMIT FOR REVIEW TO THE OWNER AND OWNER'S ENGINEER SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS TO BE USED ON THIS SITE. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION MAY RESULT IN REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE. ENGINEER'S APPROVAL OF A SHOP DRAWING DOES NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY FOR THE PERFORMANCE OF THE ITEM.
8. A HORIZONTAL SEPARATION OF TEN FEET PREFERRED, BUT NO LESS THAN SIX FEET, SHALL BE MAINTAINED BETWEEN POTABLE WATER MAINS AND GRAVITY OR PRESSURE WASTEWATER MAINS, WASTEWATER FORCE MAINS, AND RECLAIMED WATER MAINS NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. A HORIZONTAL SEPARATION OF TEN FEET PREFERRED, BUT NO LESS THAN THREE FEET, SHALL BE MAINTAINED BETWEEN POTABLE WATER MAINS AND VACUUM WASTEWATER MAINS. A HORIZONTAL SEPARATION OF THREE FEET SHALL BE MAINTAINED BETWEEN POTABLE WATER MAINS AND STORM SEWERS, STORMWATER FORCE MAINS, AND RECLAIMED WATER MAINS REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
9. WHEN POTABLE WATER MAINS CROSS OTHER PIPES, THE TWO PIPES SHALL HAVE JOINTS A MINIMUM OF SIX FEET FROM THE CROSSING. WHEN POTABLE WATER MAINS CROSS UNDERNEATH OTHER PIPES, THE MINIMUM VERTICAL SEPARATION IS TWELVE INCHES. WHEN POTABLE WATER MAINS CROSS ABOVE PRESSURE WASTEWATER MAINS, WASTEWATER FORCE MAINS, AND RECLAIMED WATER MAINS, THE MINIMUM VERTICAL SEPARATION IS TWELVE INCHES. WHEN POTABLE WATER MAINS CROSS ABOVE GRAVITY AND VACUUM WASTEWATER MAINS, STORM SEWERS, AND STORMWATER FORCE MAINS, THE PREFERRED VERTICAL SEPARATION IS TWELVE INCHES AND THE THE MINIMUM VERTICAL SEPARATION IS SIX INCHES.
10. THE SITE WORK CONTRACTOR SHALL ENGAGE THE SERVICES OF A LICENSED UNDERGROUND UTILITY AND EXCAVATION CONTRACTOR TO INSTALL THE NEW WATER SERVICE LINE.
11. ALL SANITARY SEWER SERVICE LATERALS SHALL BE 4" PVC SDR 35 OR 6" PVC SDR 35 WITH A CLEAN-OUT LOCATED PER THE PLANS. MINIMUM SLOPE FOR 4" LATERALS SHALL BE 1.0% AND A MINIMUM CLEANOUT SPACING OF 75 FEET ON-CENTER AND MINIMUM SLOPE FOR 6" LATERALS SHALL BE 0.6% AND A MINIMUM CLEANOUT SPACING OF 100 FEET ON-CENTER.
12. PUBLIC UTILITY EASEMENTS WILL BE PROVIDED AS REQUIRED FOR ALL UTILITIES SHOWN HEREON BY METES AND BOUND DESCRIPTION AND IN ACCORDANCE WITH THE REGULATORY AGENCY DEPARTMENT FOR PUBLIC UTILITIES.



Project Name:

PAC Sewer Piping  
Repair-Replacement

Submital:

Bid Documents

Seal:

Travis J. Hasty  
State of Florida, Professional  
Engineer, License No. 84285  
  
This item has been  
electronically signed and  
sealed by Travis J. Hasty,  
PE on 06/11/2024 using a  
Digital Signature.  
  
Printed copies of this  
document are not considered  
signed and sealed and the  
signature must be verified on  
any electronic copies.

Moses Project #: 23131

Drafted By: GSW

Checked By: TJH

Date: 06/10/2024

| No. | Revision Description | Date |
|-----|----------------------|------|
|-----|----------------------|------|



Sheet Title:

GENERAL NOTES

Sheet #:

C0.10

|   |  |   |                                    |
|---|--|---|------------------------------------|
|  | WATER VALVE  |  | A/C = AIR CONDITIONER              |
|  | FIRE HYDRANT   |  | ELEV = ELEVATION                   |
|  | WATER METER  |  | INV = INVERT                       |
|  | WELL (SIZE AS NOTED)                                       |  | FFE = FINISHED FLOOR ELEVATION     |
|  | BACK FLOW PREVENTER  |  | ELIP = ELLIPTICAL                  |
|  | TELEPHONE PEDESTAL   |  | CMP = CORRUGATED METAL PIPE        |
|  | TELEPHONE JUNCTION BOX                                     |  | PVC = POLYVINYL CHLORIDE PIPE      |
|  | ELECTRIC MANHOLE   |  | RPC = REINFORCED CONCRETE PIPE     |
|  | WOOD POWER POLE  |  | VCP = VITRIFIED CLAY PIPE          |
|  | CONCRETE POWER POLE  |  | DIP = DUCTILE IRON PIPE            |
|  | CONCRETE LIGHT POLE  |  | PP = PLASTIC PIPE                  |
|  | ELECTRIC CONTROL BOX                                       |  | CPP = CORRUGATED PLASTIC PIPE      |
|  | ELECTRIC HANDHOLE  |  | Ø = DIAMETER                       |
|  | ELECTRIC TRANSFORMER                                       |  | CLF = CHAIN LINK FENCE             |
|  | GUY ANCHOR   |  | MLP = METAL LIGHT POLE             |
|  | GAS METER  |  | HW = HOT WATER                     |
|  | GAS LINE MARKER  |  | CHW = CHILLED WATER                |
|  | FIBER OPTIC POST   |  | E = EASTING                        |
|  | FIBER OPTIC PEDESTAL (BOX)                                 |  | N = NORTHING                       |
|  | TELEPHONE HANDHOLE   |  | (TYP) = TYPICAL                    |
|  | EMERGENCY TELEPHONE  |  | CONC = CONCRETE                    |
|  | METAL LIGHT POLE ON CONCRETE BASE (UNLESS OTHERWISE NOTED) |  | CHW = CAUSSEAUX, HEWITT, & WALPOLE |
|  | PVC CLEAN OUT  |  | ▲ PK NAIL SET (TRAVERSE POINT)     |
|  | SANITARY SEWER MANHOLE                                     |  | ▲ SET NAIL & DISK (LB #5075)       |
|  | STORM SEWER MANHOLE  |  | ● SET STEEL ROD & CAP (LB #5075)   |
|  | STORM SEWER DROP INLET                                     |  | ● SET 60d NAIL & CAP (LB #5075)    |
|  | STORM SEWER DRAIN  |  | ⊗ SET CROWS FOOT                   |
|  | CONCRETE PAD WITH AIR CONDITIONER                          |  | N.T.S. = NOT TO SCALE              |
|  | CABLE TELEVISION   |   |                                    |
|  | SIGN (AS NOTED)  |   |                                    |
|  | CONCRETE BOLLARD   |   |                                    |
|  | CONCRETE METERED END SECTION (NOT TO SCALE)                |   |                                    |
|  | BENCHMARK DESCRIPTOR                                       |   |                                    |

|   |  |
|---|--|
| OHW   | OVERHEAD UTILITIES                               |
| E   | UNDERGROUND ELECTRIC LINE (PER SURFACE EVIDENCE) |
| —   | UNDERGROUND CONDUIT (PER SURFACE EVIDENCE)       |
| SS  | SANITARY SEWER LINE (PER SURFACE EVIDENCE)       |
| ST  | STORM SEWER LINE (PER SURFACE EVIDENCE)          |
| W   | WATER LINE (PER SURFACE EVIDENCE)                |
| G   | GAS LINE (PER FIELD LOCATED PAINT SPOTS)         |
| X   | FENCE LINE (AS NOTED)                            |
|  | CLAY / GRASS SURFACE                             |
|  | CONCRETE SURFACE                                 |

### DATA OBTAINED BY PHOTOGRAMMETRIC METHODS

- V = VALVE (BY PHOTOGRAMMETRIC METHODS)
- × 67.1 SPOT ELEVATION (BY PHOTOGRAMMETRIC METHODS)
- CONTOUR LINE (BY PHOTOGRAMMETRIC METHODS)
- COVER METAL COVER (BY PHOTOGRAMMETRIC METHODS)
- LIGHT POLE (BY PHOTOGRAMMETRIC METHODS)
- ✉ MAILBOX (BY PHOTOGRAMMETRIC METHODS)
- STORM SEWER DROP INLET (BY PHOTOGRAMMETRIC METHODS)
- W WATER UTILITY (BY PHOTOGRAMMETRIC METHODS)
- u SIGN (BY PHOTOGRAMMETRIC METHODS)
- △ GUY ANCHOR (BY PHOTOGRAMMETRIC METHODS)
- UTILITY POLE (BY PHOTOGRAMMETRIC METHODS)
- BOLLARD (BY PHOTOGRAMMETRIC METHODS)
- TREE LINE (BY PHOTOGRAMMETRIC METHODS)



## NTS



**NTS**



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## NTS

## PAC Sewer Piping Repair-Replacement

**Submittal:**

## Bid Documents

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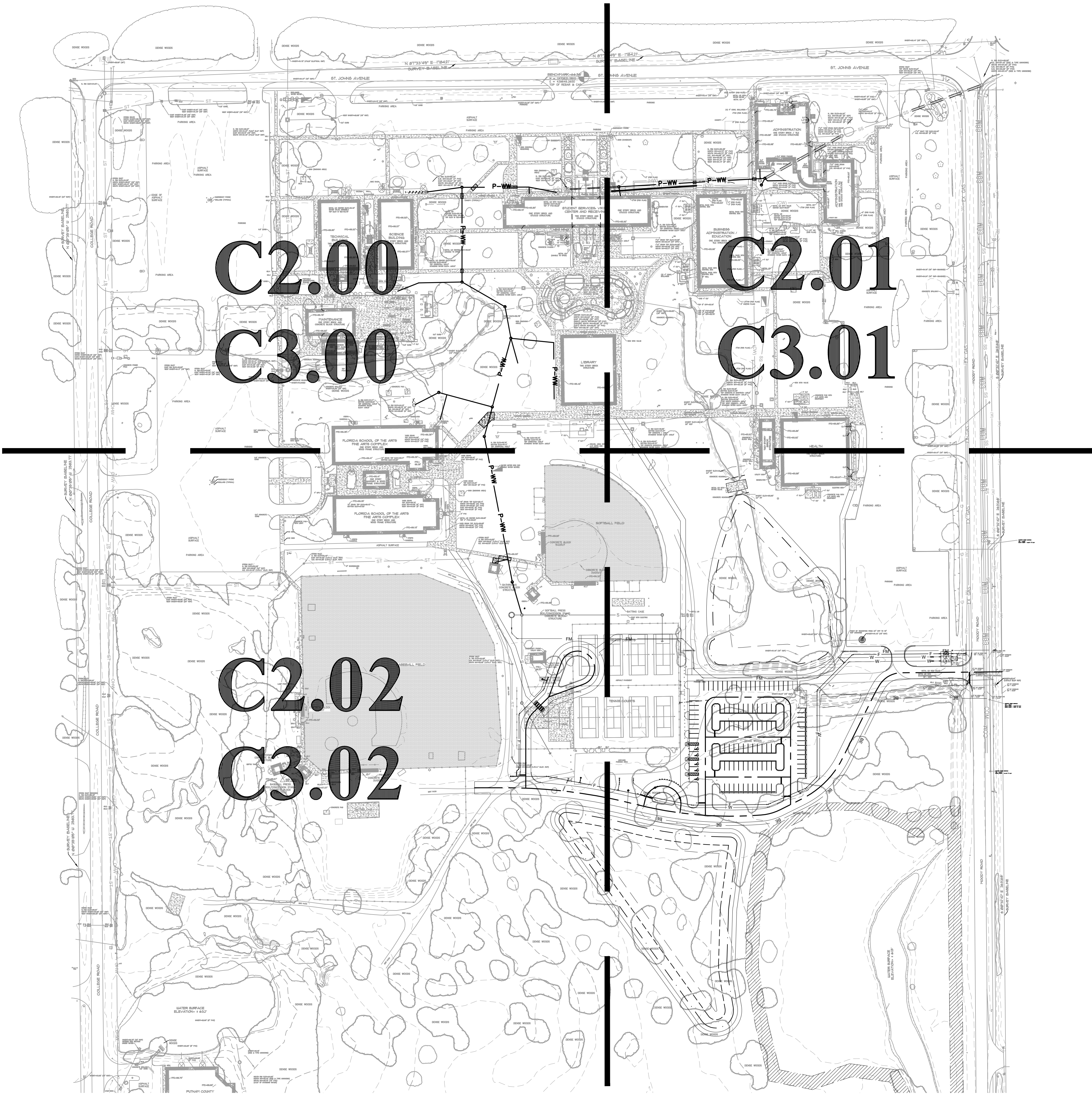
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| Moses Project #: | 23131      |
| Drafted By:      | GSW        |
| Checked By:      | TJH        |
| Date:            | 06/10/2024 |

| No. | Revision Description | Date |
|-----|----------------------|------|
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Sheet Title:

**LEGEND AND  
CONSTRUCTION DETAILS**

Sheet #: **C0.1 1**



Project Name:  
PAC Sewer Piping  
Repair-Replacement

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Sheet Title:  
**KEY SHEET**

Sheet #:  
**C1.00**

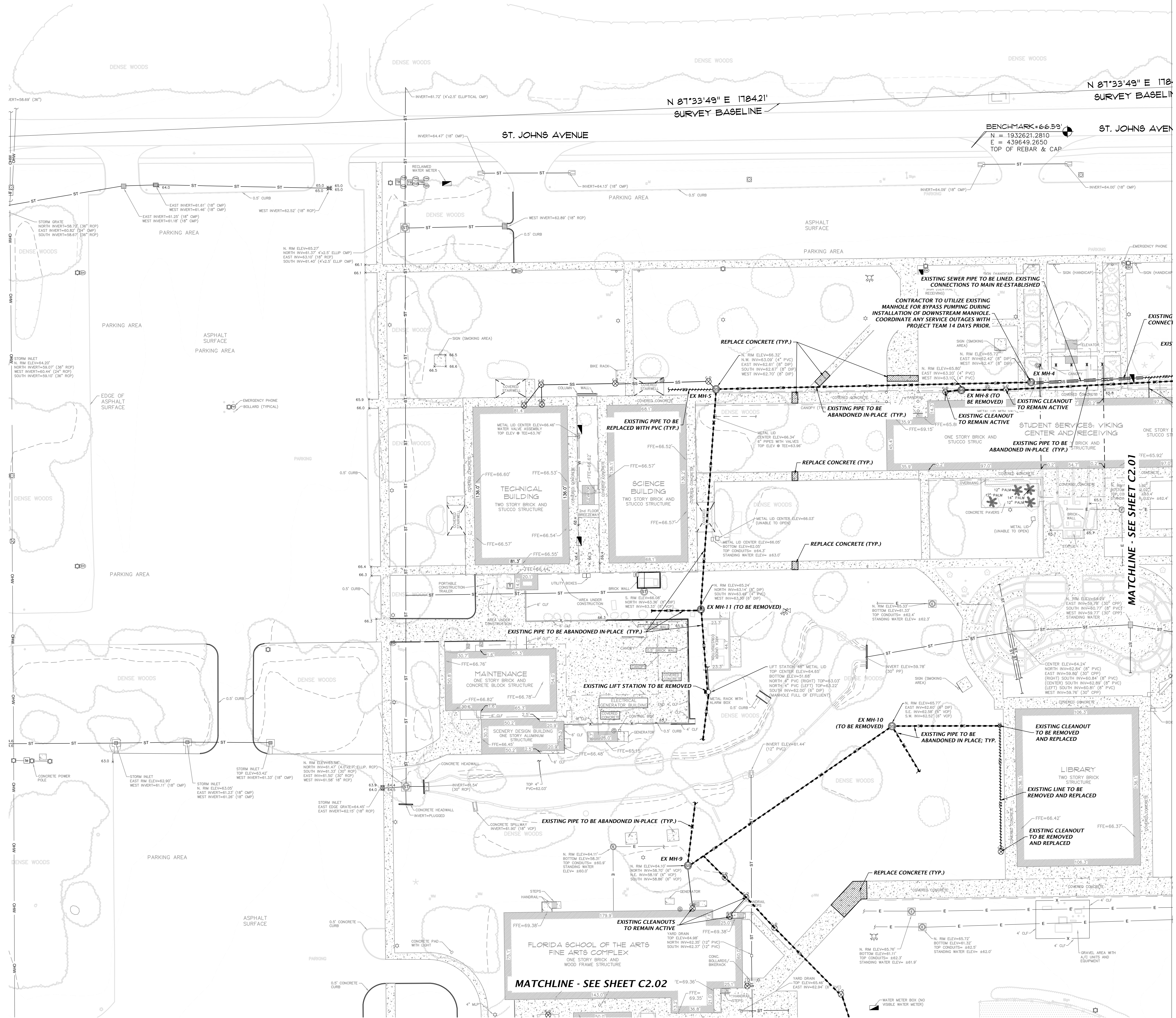
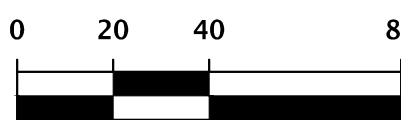
## LEGEND

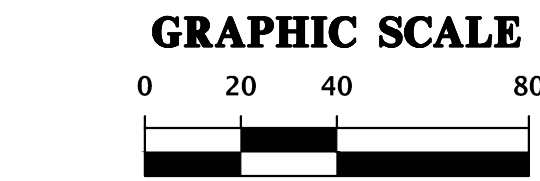
- SS ——— EXISTING SEWER LINE TO REMAIN
- \*\*\*\*\* EXISTING SEWER LINE TO BE  
REPLACED WITH PVC PIPE
- EXISTING SEWER LINE TO BE  
ABANDONED IN PLACE
- P-WW ——— PROPOSED SEWER LINE
- CONCRETE REPLACEMENT

## GENERAL NOTES:

1. CONTRACTOR TO COORDINATE ANY SEWER SERVICE  
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3. CONTRACTOR TO REPORT ANY UNKNOWN UTILITIES  
ENCOUNTERED DURING THEIR WORK TO PROJECT TEAM.

## GRAPHIC SCALE





## LEGEND

- SS ——— EXISTING SEWER LINE TO REMAIN
- EXISTING SEWER LINE TO BE REPLACED WITH PVC PIPE
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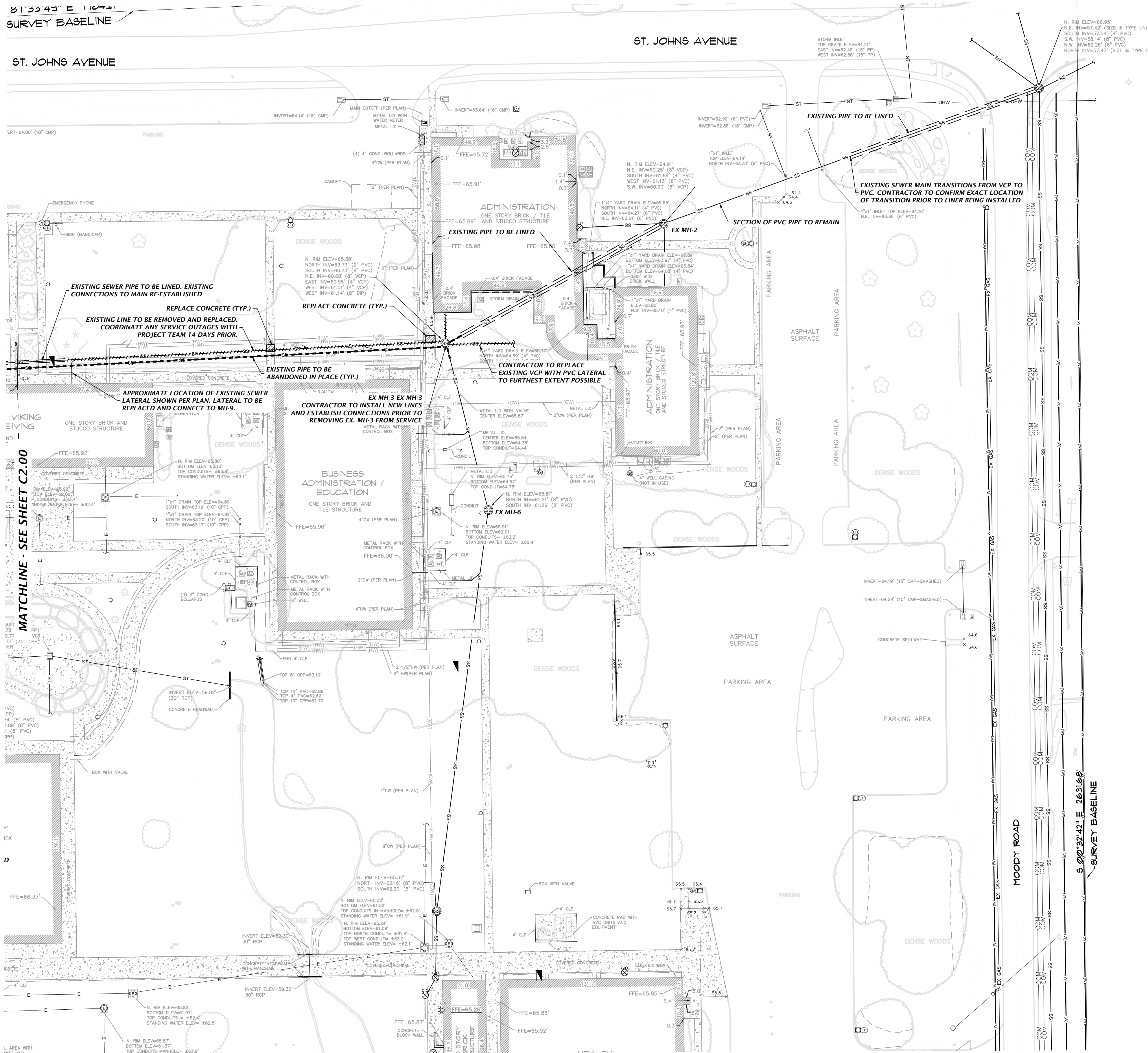
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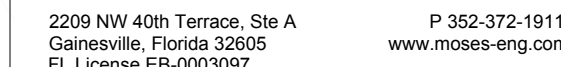
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| Drafted By:      | GSW                  |      |
| Checked By:      | TJH                  |      |
| Date:            | 06/10/2024           |      |
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Sheet Title:

**DEMOLITION PLAN**

Sheet #:  
**C2.01**





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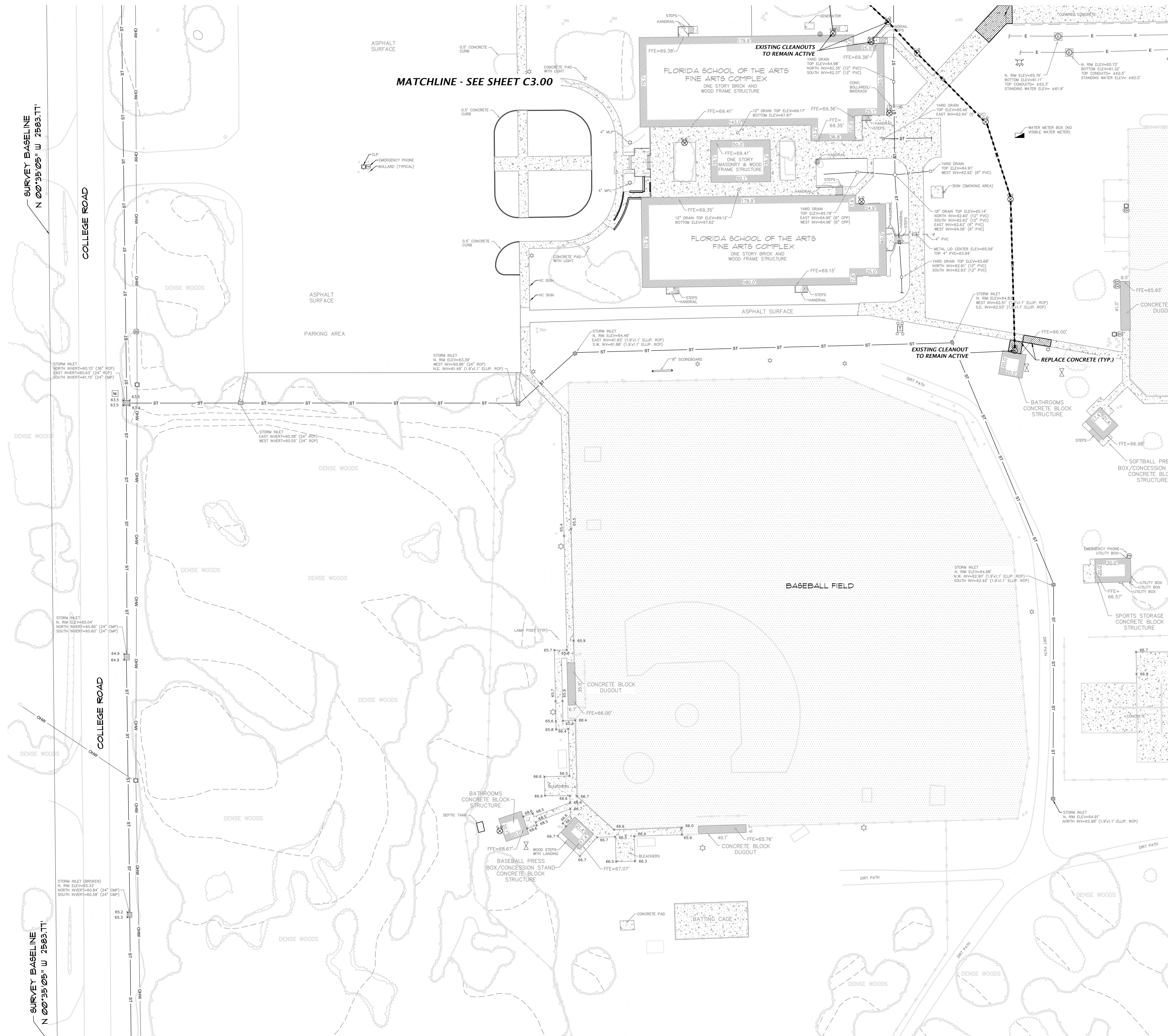
Date: 06/10/2024

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Sheet Title:

## DEMOLITION PLAN

Sheet #: 62.02

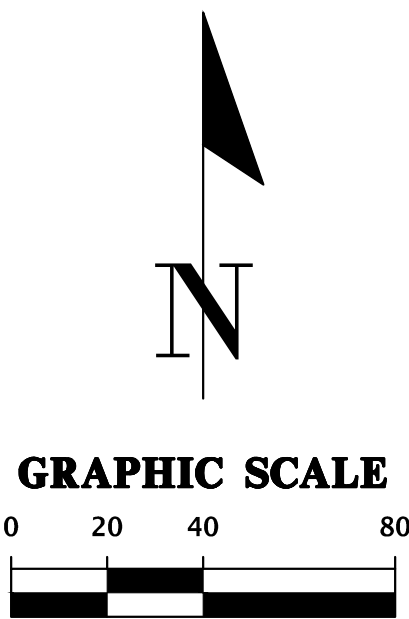


## LEGEND

|                      |  |
|----------------------|--|
| SS                   | EXISTING SEWER LINE TO REMAIN                    |
| -----                | EXISTING SEWER LINE TO BE REPLACED WITH PVC PIPE |
| -----                | EXISTING SEWER LINE TO BE ABANDONED IN PLACE     |
| P-WW                 | PROPOSED SEWER LINE                              |
| SF                   | PROPOSED SILT FENCE                              |
| CONCRETE REPLACEMENT |  |

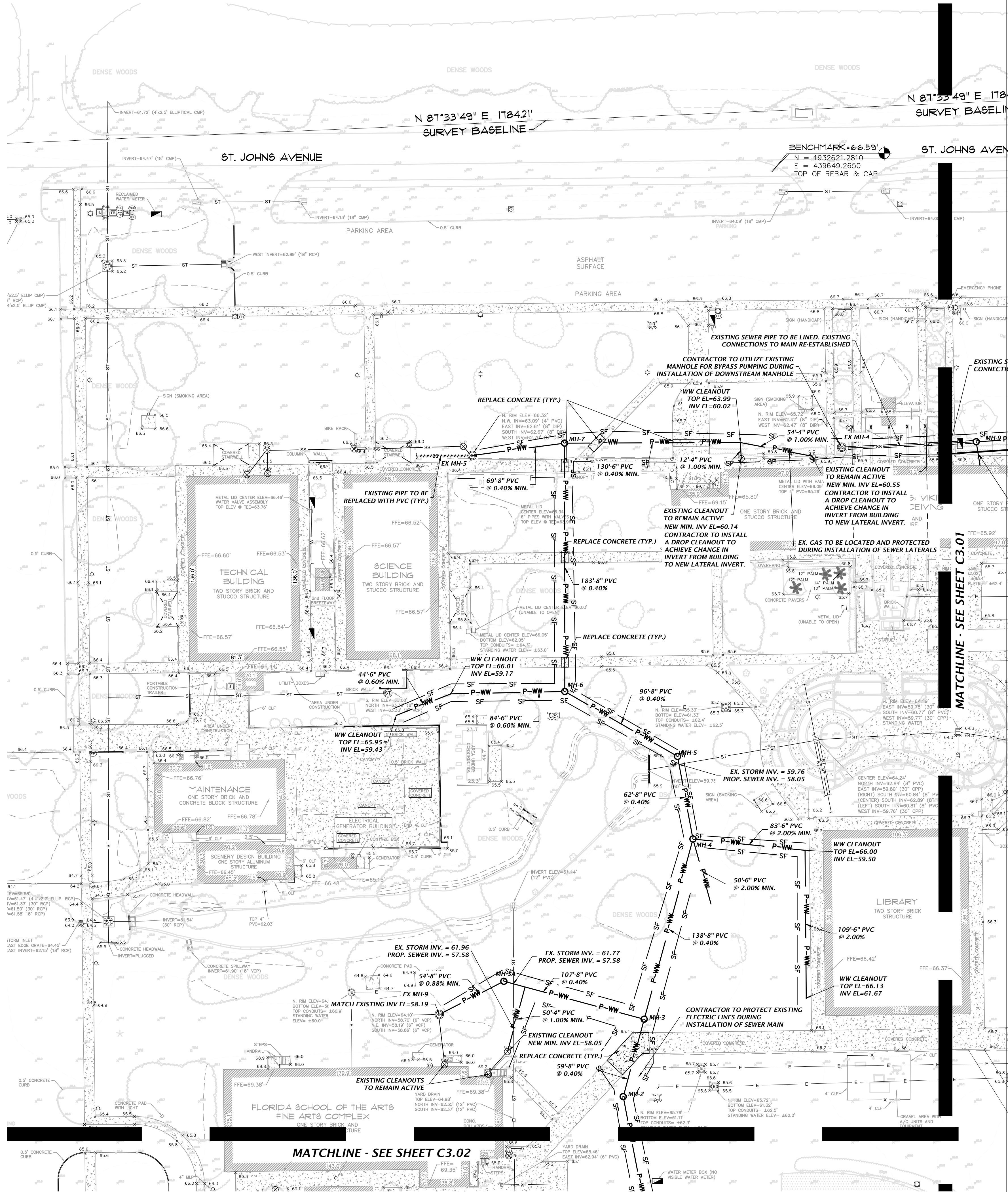
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4. CONTRACTOR TO PROVIDE SCHEDULE OF WORK ACTIVITIES FOR COORDINATION WITH PROJECT TEAM.



SANITARY SEWER STRUCTURE TABLE

| STRUCTURE NAME: | STRUCTURE TYPE              | TOP   | INVERT ELEV   | NORTHING & EASTING            |
|-----------------|-----------------------------|-------|---|-------------------------------|
| DH-1            | DOGHOUSE MANHOLE            | 65.80 | 60.76 (8") S<br>60.76 (8") NE<br>60.73 (8") NW                  | N: 1932428.18<br>E: 440075.21 |
| DH-2            | DOGHOUSE MANHOLE            | 65.70 | 60.95 (4") SE<br>60.70 (8") SW<br>60.66 (8") NE<br>60.76 (8") W | N: 1932441.05<br>E: 440081.86 |
| MH-1            | MANHOLE PER DETAIL ON CO.11 | 66.45 | 55.61 (8") N<br>55.51 (8") S                                    | N: 1931663.07<br>E: 439595.37 |
| MH-2            | MANHOLE PER DETAIL ON CO.11 | 65.60 | 56.86 (8") N<br>56.76 (8") S                                    | N: 1931943.55<br>E: 439541.46 |
| MH-3            | MANHOLE PER DETAIL ON CO.11 | 65.45 | 57.19 (8") N<br>57.09 (8") S<br>57.19 (8") W                    | N: 1932000.43<br>E: 439556.86 |
| MH-3A           | MANHOLE PER DETAIL ON CO.11 | 64.54 | 57.72 (8") SW<br>57.62 (8") E                                   | N: 1932028.33<br>E: 439453.81 |
| MH-4            | MANHOLE PER DETAIL ON CO.11 | 65.69 | 57.84 (6") E<br>57.84 (8") N<br>57.84 (6") S<br>57.74 (8") S    | N: 1932132.84<br>E: 439592.71 |
| MH-5            | MANHOLE PER DETAIL ON CO.11 | 65.60 | 58.09 (8") S<br>58.19 (8") NW                                   | N: 1932193.56<br>E: 439581.36 |
| MH-6            | MANHOLE PER DETAIL ON CO.11 | 65.35 | 58.67 (6") W<br>58.67 (8") N<br>58.57 (8") SE                   | N: 1932241.24<br>E: 439498.54 |
| MH-7            | MANHOLE PER DETAIL ON CO.11 | 65.85 | 59.40 (8") S<br>59.50 (6") E<br>59.50 (8") W                    | N: 1932423.74<br>E: 439498.40 |
| MH-9            | MANHOLE PER DETAIL ON CO.11 | 65.85 | 61.89 (8") E<br>61.99 (4") S                                    | N: 1932424.73<br>E: 439800.82 |



Project Name:  
**PAC Sewer Piping  
Repair-Replacement**

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Checked By: TJH  
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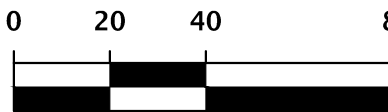
Sheet Title:  
**UTILITY PLAN**

Sheet #:  
**C3.00**

Project Name:

PAC Sewer Piping  
Repair-Replacement

**GRAPHIC SCALE**



## LEGEND

- SS EXISTING SEWER LINE TO REMAIN
- EXISTING SEWER LINE TO BE REPLACED WITH PVC PIPE
- EXISTING SEWER LINE TO BE ABANDONED IN PLACE
- P-WW PROPOSED SEWER LINE
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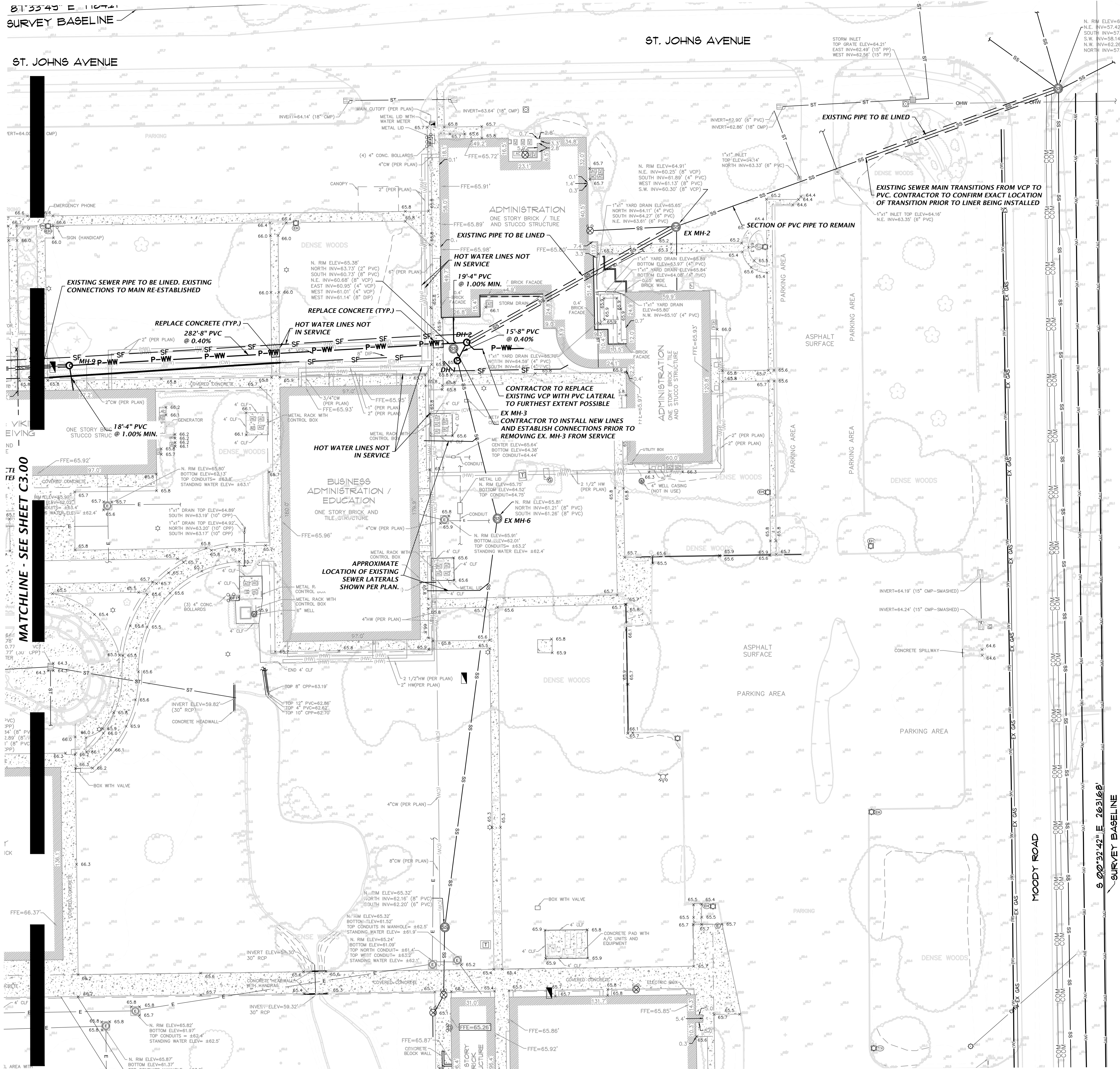
Sheet Title:

UTILITY PLAN

Sheet #:

C3.01

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|--------------------------------|-----------------------------|-------|---|-------------------------------|
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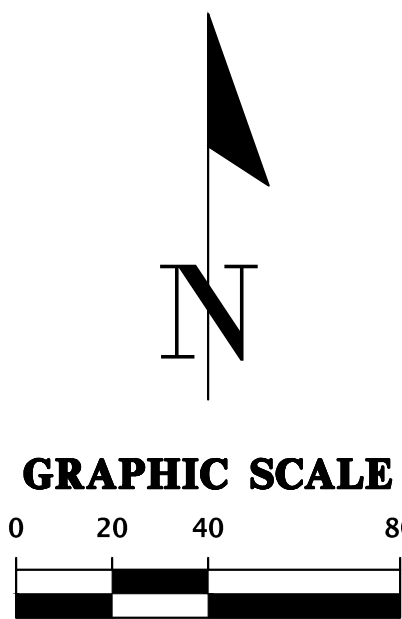


## LEGEND

|                      |  |
|----------------------|--|
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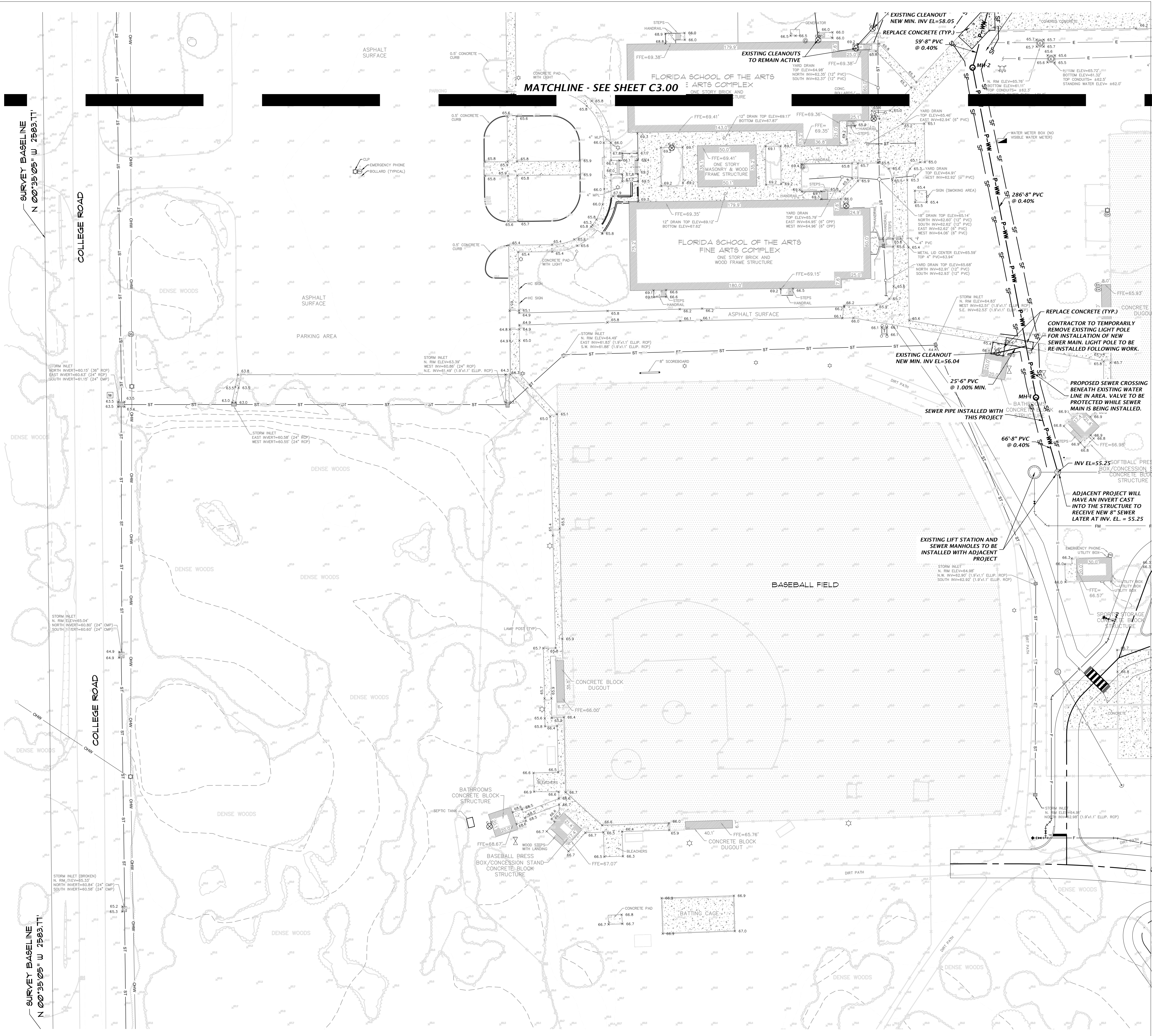
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www.moses-eng.com

**CHW**  
Professional Consultants

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Repair-Replacement

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Sheet Title:

UTILITY PLAN

Sheet #:

C3.02