



Public Utilities

**Palm River – Area 4
Public Utilities Renewal**

Final Submittal

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SECTION I

PROJECT DESCRIPTION

Palm River Public Utilities Renewal Area 4

PROJECT DESCRIPTION

This project consists of replacing the aging potable water main, installing a central wastewater collection system, and abandoning the existing septic systems within Cocohatchee River Estates (Area 4). The Cocohatchee River Estates is 24-lot community on the west side of the Palm River neighborhood along Cocohatchee Boulevard and Cocohatchee Drive. The project generally consists of the following major components:

- Potable Water Infrastructure Improvements
 - Installation of new 8-inch and 10-inch PVC water main piping and associated appurtenances.
 - New gate valves and fire hydrants.
 - Installation of new water services, meter boxes, and backflow preventers to the existing locations.
 - Grout and abandon the existing 6-inch AC water main piping in place.
- Wastewater Infrastructure Improvements
 - Installation of new 2 and 3-inch HDPE sanitary sewer force main piping and associated appurtenances along the roadway. The new force main extends outside of the project area along Old Tamiami Trail and will connect to the existing 8" cast iron discharge force main just east of existing PS-103.10.
 - Complete installation of residential grinder pump stations from the connection to the force main piping along the roadway to the connection to existing the laterals at each home. This also includes electrical work associated with the grinder pump stations at each home.
 - Permitting and inspections associated with the grinder pump stations (plumbing and electrical) with Collier County Building Department.
 - Abandonment of existing septic systems after the new grinder pump stations are placed into service. This also includes permitting with the Department of Health.
- Roadway Improvements
 - Rebuilding of the roadway along Cocohatchee Boulevard and Cocohatchee Drive, including new subgrade, base, and asphalt.
 - The roadway and valley gutter outside of Area 4 will be restored where disturbed for water main and force main construction.
 - Damaged driveways shall be restored to their previous condition or better.

All construction shall be in accordance with the construction plans, Roadway and Traffic Standards (latest edition), Collier County Development Standards and Specifications and Collier County Water-Sewer District Utilities Standards Manual, the State of Florida Department of Transportation (FDOT) standards (latest edition), Florida Administrative Code, Florida Department of Environmental Protection (FDEP) Rules/Standards, and Florida Department of Health (DOH) Regulations/Standards. In the event of conflict between standards/requirements and/or these specifications and drawings, the more stringent requirement shall apply.

SECTION II

PROJECT PHASING

Palm River Utilities Renewal Area 4

The project shall be phased to minimize impacts to residents within the Cocohatchee River Estates (Area 4) per the description in this section. In general, installation of the new water main, all short and long side water services, and connections must be completed first. Once the water main has been cleared, each new service is placed into service on the new water main, and temporary asphalt patching or compacted limerock base has been placed along the roadway, construction of the sanitary sewer collection system may begin. Final restoration including rebuilding the roadway will begin after all utility construction is complete. Changes/alterations to this phasing plan shall not be allowed without the written approval of the County's Project Manager.

Phase 1 – Water System:

In order to reduce the potential for construction related water main breaks on the existing AC water main, the contractor shall replace the potable water system in Area 4 before beginning any other construction within Area 4. Additionally, the contractor shall begin permitting procedures for the grinder pump stations during Phase 1.

- The Area 4 potable water system replacement along Cocohatchee Boulevard and Cocohatchee Drive shall include:
 - Installation of new water main, all water services (short and long), meters, meter boxes, backflow preventers, valves, fire hydrants, ARVs, and sample points. The potable water system shall be installed, backfilled, tested, cleared for use, and placed into service.
 - Grout and abandon in place the existing AC water main and remove associated existing water main appurtenances (hydrants, valves, ARVs, etc.).
 - Restoration of the work zone includes trenches backfilled and compacted to grade; temporary asphalt patching or compacted limerock base within the roadway, valve pads, mailbox removal/replacement as needed, and driveway restoration as needed.

Phase 2 – Sanitary Sewer Collection System:

After the potable water system is in placed into service, the existing AC main is grouted, and the work zone is restored as indicated above, the contractor shall begin construction of the new central sanitary sewer collection system.

- The Area 4 central sanitary sewer collection system shall include:

- Installation of the force main within the roadway, all low pressure service laterals, valves, ARVs, and maintenance ports. The force main system shall be installed, backfilled, tested, cleared for use, and placed into service.
- Obtain necessary plumbing and electrical permits for grinder pump station installations.
- Installation of the grinder pump stations, cleanouts, associated appurtenances and electrical equipment on private properties; pump station start up, and connection of the existing laterals to grinder pump stations.
- Obtain necessary septic tank abandonment permits and perform abandonment of the existing septic systems per local, state, and federal requirements.
- Restoration of the work zone includes trenches backfilled and compacted to grade, temporary asphalt patching or compacted limerock based within the roadway, valve pads, restoration to private property, mailbox removal/replacement as needed, and driveway restoration as needed.

Phase 3 – Final Restoration:

The contractor shall begin final restoration after all utilities are installed and placed into service as described above.

- Area 4 final restoration shall include:
 - Complete road restoration including sub-base, limerock, and first lift of asphalt placement (compacted, tested, and accepted) and temporary striping and pavement markings.
 - Complete restoration to any areas that were disturbed including landscape, irrigation, sod, driveways, etc. within the easement/ROW and on private property.
 - Final lift of asphalt placement and final striping and pavement markings.

SECTION III

MEASUREMENT AND PAYMENT

Palm River Public Utilities Renewal Area 4

DESCRIPTION

- A. This section describes the method used to determine quantities of Work performed or materials supplied for which a price is given in the Bid. It establishes the basis upon which payment will be made for Payment Items.
- B. Subject to the provisions in General Conditions, all Work and payment for the Work is represented by Payment Items and associated unit prices.

PAYMENT

- A. Subject to all other contract requirements, the Contractor shall be paid for "as built" quantities of Work for which a price is given in the bid.
- B. Quantities on the Bid Schedule are estimated and may be increased or decreased without limit and without changes to the unit prices, regardless of any other precedent or related standard, including FDOT standards.
- C. No separate payment will be made for one Payment Item as Work incidentally required to complete the Work of another.
- D. Payment for Work performed shall be made in accordance with the unit prices in the Bid.
- E. Contractor's payment applications approval is subject to all conditions of the Contract, Collier County requirements and the receipt and approval (by the County, EOR, and/or CEI) of following from the Contractor:
 - 1. Up-to-date monthly Project Schedule, per the Construction Contract.
 - 2. Up-to-date 2 Week Look Ahead schedules (every 2 weeks).
 - 3. Up-to-date weekly vibration monitoring reports.
 - 4. Preconstruction Assessment Forms.
 - 5. Preconstruction Videos (wet and dry).
 - 6. Existing utility location reports (horizontal and vertical pot holing or soft digging of all existing utilities).
 - 7. As-built red lines of completed work.Additionally, Contractor's payment applications approval is subject to the storage/staging lot(s) minimum requirements per the Special Project Provisions.

MEASUREMENT FOR PAYMENT

- A. Methods of Measurement:
 - 1. Measurements of lengths, widths, slope angles, and depths or elevations shall be made to determine "as-built" quantities of lengths, areas and volumes pertinent to Payment Items.
 - a. Unless otherwise specified, all lengths shall be horizontal distances.
 - b. Slope angles and elevations shall be measured using land surveying equipment.

2. Graphic representations of measured quantities shall be drafted to scale using the Drawings where convenient and appropriate. Additional drawings shall be drafted if required.
 - a. Irregular shapes representing areas and volumes shall be measured using a compensating polar planimeter or a computer digitizer.
 - b. Regular shapes shall be scaled.
3. Use of Drawings:
 - a. Unless otherwise agreed upon between the Contractor and Owner, the Drawings shall be used as the basis to establish existing grades and other existing topographic features.

PAYMENT ITEMS

- A. No separate payment will be made for the following Work, and its cost shall be included in the Bid Price of the Payment Item to which it is associated:
 1. Trench excavation, sheeting, shoring and bracing.
 2. Dewatering and associated water quality testing as stipulated in the South Florida Water Management District Permit.
 3. Best management practices and controls required to meet dewatering discharge water quality standards.
 4. Erosion and sedimentation control and turbidity screening.
 5. Excavation, fill, backfill, pipe bedding (including 57 stone), compaction, and grading, including furnishing and installing imported material as required.
 6. Excavation of all material encountered, including rock, asphalt, organic, inorganic, and unsuitable material and all material transportation and disposal.
 7. Right-of-way, easement, site, private property, and all disturbed area restoration including grading, sod, mulch, plantings, trees, landscape, etc. Sod type shall be determined by the type of sod that constitutes 50% or more of the property to be restored.
 8. Temporary and final restoration.
 9. Removal and temporary replacement of driveways and roadways disturbed during construction to maintain stable condition and adhere with all requirements set forth within the Construction Standards Handbook for Work within the Public Right-Of-Way Collier County, FL, until permanent restoration is completed.
 10. Tree and root trimming.
 11. Removal, repair, and replacement of existing irrigation located within the ROW/easement and within private property.
 12. Maintaining irrigation systems in an operable condition during construction, including ensuring continued coverage of all existing vegetation outside of the work area or within private property.
 13. Removal and disposal of existing water mains, force mains, and associated appurtenances (other than AC water main piping), including concrete thrust blocks.
 14. Cleanup and site dust control, including daily sweeping and watering as needed to maintain a clean work area and daily collecting and disposal of all trash and debris within the project site.

15. Testing, including all materials, fees, certifications, and equipment.
16. Maintenance of utility service.
17. Appurtenant work.
18. Removal and replacement of fencing and other structures within the ROW/easement and within private property.
19. Saw cutting.
20. Coordination with other contractors for work within the ROW/easement and/or private property.
21. All transportation, storage, and labor.
22. Notifications to property owners of construction schedule and service interruptions.
23. Hiring of power company to relocate or support power poles as required.
24. Contractor Project Manager or Supervisor onsite during any construction activity.
25. Temporary bacteriological sample points.

B. Measurement and Payment Items as listed in the Bid Schedule:

SECTION 1: GENERAL REQUIREMENTS

1.1 Mobilization/Demobilization (Max 10% of Total Bid Amount)

- A. Measurement for various items covered under Mobilization/Demobilization will not be made for payment, and all items shall be included in the contract lump sum price.
- B. Payment for mobilization and demobilization will be made at the contract lump sum price and shall include all necessary meetings for the project, including but not limited to: meetings with property owners, home owners associations, and other interested parties, all meetings deemed necessary by Collier County, the attendance of the Contractor's field superintendent(s) at all progress meetings, and all other public meetings required to complete the project in accordance with the contract documents, preparatory work and operations in mobilizing for beginning work on the Project and demobilizing for ending work on the Project. Additionally, this item shall include locating and potholing all existing utilities a minimum of two (2) weeks prior to beginning work, providing the required report and notification to the Engineer of Record and County of any discrepancies found; the establishment of safety equipment, first aid supplies, sanitary and other facilities, as required by these specifications, State and local laws and any other preconstruction expense necessary for the state of the Work, insurance and bonds, the cost of field engineering, including permits and fees, construction schedules (updated schedules are required monthly), shop drawings, temporary facilities, staging/storage lots, construction aids, work associated with Contractor support during Owner/Engineer testing, reviews and inspection, re-inspection and any rework resulting from same, cleaning, and project records documents. This payment item cannot exceed more than ten percent (10%) of the total bid amount. Fifteen percent (15%) of the cost for mobilization/demobilization will be withheld until substantial completion acceptance of the entire project.

1.2 Maintenance of Traffic

- A. Measurement for various items covered under Maintenance of Traffic will not be made for payment, and all items shall be included in the contract lump sum price.
- B. Payment for Maintenance of Traffic will be made at the contract lump sum price for the item, which price and payment shall be full compensation for permitting, construction, and maintenance of any necessary detour facilities; providing necessary facilities for access to residences, businesses, etc., along the project; the furnishing, installing and maintaining of traffic control, barricades, railings, variable message boards (VMS), warning lights, and other safety devices during construction, the control of dust (daily and as further needed), providing the services of uniformed off-duty police officers, flag men, watchmen, and other special requirements for the safe and expeditious movements of traffic per County and FDOT standards.

1.3 Survey Layout & Record Drawings

- A. Measurement for various items covered under Survey Layout & Record Drawings will not be made for payment, and all items shall be included in the contract lump sum price.
- B. Payment for providing all survey and record drawings will be made at the contract lump sum price for the item, which price and payment shall be full compensation for project stake-out, staking and continued maintenance of easement/ROW staking at each property, completion of an as-built survey, contractor's hand-drawn redlines, and the delivery of signed and sealed record drawings and an electronic copy submitted to the County upon Contract close-out per County standards. Electronic (CAD) files shall be provided to the Engineer of Record. Up-to-date Contractor redlines shall be provided with every pay request. Pay requests submitted without up-to-date Contractor redlines shall be rejected.

1.4 Pre-Construction Video & Photographs

- A. Measurement for various items covered under Pre-Construction Video & Photographs will not be made for payment, and all items shall be included in the contract lump sum price.
- B. Payment for providing pre-construction videos and photographs will be made at the full lump sum contract price for the item, which price and payment shall be full compensation for individual property assessments with a minimum of three pictures per lot to document pre-construction conditions, including, but not limited to, sod type, driveway condition, driveway condition outside of the easement/ROW, and private irrigation system details documented on the Pre-Construction Condition Form specified herein; a wet weather video (in addition to a dry weather video) to document flood conditions that will take place during normal business hours. If documentation of the wet weather condition is not possible by a precipitation event, this shall include the cost to flood the easement/ROW with a water truck to document stormwater drainage conditions. Preconstruction videos and pictures shall be taken a maximum of 30 days prior to commencement of construction. This pay item includes performing a preconstruction video(s) and pre-assessment forms for all Contractor

storage lots and performing a preconstruction video on private property a minimum of 20 feet on all sides of the proposed work on private property.

1.5 Post-Construction Video

- A. Measurement for various items covered under Post-Construction Video will not be made for payment, and all items shall be included in the contract lump sum price.
- B. Payment for providing post-construction videos will be made at the full lump sum contract price for the item, which price and payment shall be full compensation for a dry weather video and a wet weather video documenting conditions of the easement/ROW and on private property, if documentation of the wet weather condition is not possible by a precipitation event, this shall include the cost to flood the easement/ROW with a water truck to document stormwater drainage conditions within 15 days of project final completion.

1.6 Clearing & Grubbing

- A. Measurement for various items covered under Clearing & Grubbing will not be made for payment, and all items shall be included in the contract lump sum price.
- B. Payment for Clearing & Grubbing will be made at the contract lump sum price for the item, which price and payment shall be full compensation for the clearing and grubbing (removal and disposal) of all items within the easement/ROW of the project area as determined by the County, CEI, and EOR, not included in another pay item, including grading. No trees or landscaping shall be removed without direction from Collier County, CEI, and EOR.

1.7 Vibratory Monitoring

- A. Measurement for various items covered under Vibratory Monitoring will not be made for payment, and all items shall be included in the contract lump sum price.
- B. Payment for Vibratory Monitoring will be made at the contract lump sum price for the item, which price and payment shall be full compensation for vibratory monitoring by a third-party independent consultant to perform vibration monitoring adjacent to existing homes and structures (at the easement/ROW) during all construction activities for the duration of the project and providing weekly signed and sealed vibration monitoring reports. Vibration monitoring and reporting shall follow the U.S. Bureau of Mines standards and reports shall be signed and sealed by a State of Florida licensed Professional Engineer and delivered weekly to the County, EOR, and CEI.

1.8 Road Restoration – Stabilized Subgrade

- A. Measurement for FDOT certified stabilized subgrade will be based on the area of material actually placed as field measured and shown on as-built drawings.
- B. Payment for removing and replacing stabilized subgrade will be made at the appropriate contract unit price per square yard installed including furnishing all FDOT certified material (use of existing material is not to be assumed), compaction per FDOT standards, testing, equipment, and disposal of old material. All driveways shall remain in place; if driveways are disturbed or damaged, contractor shall restore/replace to

pre-construction conditions up to the entire driveway within the easement area as agreed upon by County, EOR, and CEI. All activities should be in accordance with the Collier County ROW Standards and as detailed on the Plans.

1.9 Road Restoration - Limerock Base (6")

- A. Measurement for removing and replacing roadway base will be based on the area actually placed as field measured and shown on as-built drawings.
- B. Payment for removing and replacing roadway base will be made at the appropriate Contract unit price per square yard for FDOT certified base installed including furnishing all material (existing material use is not to be assumed), compaction per FDOT standards, testing, equipment, and disposal of old material. Replace all base in accordance with the Collier County ROW Standards as detailed on the Plans. All driveways shall remain in place; if driveways are disturbed or damaged, contractor shall restore/replace to pre-construction conditions up to the entire driveway within the easement area as agreed upon by County, EOR, and CEI.

1.10 Road Restoration – 2-1/2" Asphalt (Two Lifts)

- A. Measurement for removing and replacing street pavement surface will be based on the area actually placed as field measured and shown on as-built drawings.
- B. Payment for removing, disposing and replacing street pavement surface will be made at the appropriate Contract unit price per square yard for pavement surface installed and accepted. Replace all pavement surface in accordance with the Collier County ROW Standard Details and details shown on the Plans. This payment item shall be all encompassing for all asphalt, testing, and temporary striping and markings. This payment item shall cover both lifts of asphalt. Contractor may apply for fifty percent (50%) payment at the completion of the first lift of asphalt, and the remaining fifty percent (50%) shall be paid at the completion and acceptance of the second lift. All driveways shall remain in place; if driveways are disturbed or damaged, contractor shall restore/replace to pre-construction conditions up to the entire driveway within the easement area as agreed upon by County, EOR, and CEI.

1.11 Final Pavement Striping, Marking, and Signs

- A. Measurement for various items covered under Final Pavement Striping, Marking, and Signs will not be made for payment, and all items shall be included in the contract lump sum price.
- B. Payment for Final Pavement Striping, Marking, and Signs will be made at the contract lump sum price for the item, which price and payment shall be full compensation for final pavement striping, markings (including reflective pavement markers), and sign removal and replacement. All existing signs that are damaged shall be replaced with new signs, posts, and hardware to meet current Collier County and FDOT specifications/standards. All striping shall be replaced to match existing; all striping shall be thermoplastic.

1.12 Remove, Dispose, and Replace Concrete Curb (Valley Gutter)

- A. Measurement for removing, disposal, and replacing concrete curb and gutter will be based on the total linear feet of material actually placed as field measured and shown on as-built drawings.
- B. Payment for removing, disposal, and replacing concrete curb and gutter shall be made at the appropriate contract unit price per linear foot and payment shall include removal and disposal of existing material, adjustment, furnishing subgrade and stabilizing material, furnishing and installing of concrete curb and gutter to match the current conditions per FDOT Standards, and testing as specified herein. Existing stormwater patterns shall be maintained at all times during construction.

1.13 Milling & Resurfacing

- A. Measurement for milling and resurfacing surface will be based on the area actually placed as field measured and shown on as-built drawings.
- B. Payment for milling and resurfacing street pavement surface will be made at the appropriate Contract unit price per square yard for pavement milled and resurfaced. Mill and resurface all pavement surface in accordance with the Collier County Standard Details and details as shown on the Plans. This payment item shall be all encompassing for all asphalt, sign removal and replacements, reflective pavement markers, and temporary striping placed. This payment item shall include 1-inch minimum milling with Type SP-9.5 asphalt (1-inch minimum) placed with the final lift of asphalt.

1.14 Replace/Restore Drainage Infrastructure

- A. Measurement for replacing and restoring drainage infrastructure will be based on the total linear feet of material actually placed as field measured and shown on as-built drawings (regardless of size and material).
- B. Payment for removing, disposal, and replacing existing drainage infrastructure that is damaged or destroyed during construction shall be made at the appropriate contract unit price per linear foot and payment shall include removal and disposal of existing material, adjustment, furnishing subgrade and stabilizing material, furnishing and installing of drainage infrastructure to match the current conditions per FDOT Standards. Existing stormwater patterns shall be maintained at all times during construction.

1.15 Remove, Dispose, and Replace Driveways on Old Tamiami Trail

- A. Measurement for removing, disposing, and replacing driveways on Old Tamiami Trail will be based on the area actually removed and replaced as field measured and verified by County, CEI, and/or EOR.
- B. Payment for removing, disposing, and replacing driveways on Old Tamiami Trail be made at the appropriate contract unit price per square yard and payment shall include removal and disposal of existing driveway material, adjustment, furnishing subgrade and stabilizing material, furnishing and installing of driveway material to match the pre-construction conditions, including driveway finishes and coatings. Payment

includes furnishing of additional brick pavers due to damage. Contractor to install all concrete driveways with reinforcement per Collier County standards. Contractor shall confirm the limits and dimensions of all driveway installation in the field with the County, CEI, and/or EOR prior to placement. Replace driveways to match existing elevations and materials of construction (unless shown otherwise on the Drawings or approved by the County). Include surface restoration required for driveway removal and replacement and reinforcement of driveway flares if applicable in this item. No additional measurement or payment will be made for varying driveway material, thicknesses, subsurface preparation, subgrade, base, limerock, and stabilizing material.

SECTION 2: WATER SYSTEM

2.1 Water Main Pipelines

- A. Measurement for water main pipelines, except as otherwise specified, will be based on the laying length of the pipe in linear feet actually placed as measured along the centerline of the completed pipe, including length of fittings measured along the centerline measured to the nearest foot, between the limits shown on the Drawings and restraint of pipe as required by contract documents.
- B. Payment for furnishing and installing water main pipelines will be made at the Contract unit price per linear foot for the pipe in place, which price and payment shall be full compensation for all work associated with the water main pipeline installation. Payment shall also include furnishing and installation of all pipe fittings, restraints, detectable tape, pretesting, flushing/filling of main, joint restraints, pressure testing, disinfection and sterilization, bacteriological testing and sampling assemblies, silt fencing, insulated conducting wire, connections to existing water main including restraint of existing pipe on all sides of the tie in (not included in another pay item), support of existing main, keeping existing main in service, removal and temporary replacement of roadways disturbed during construction to maintain usable condition until permanent restoration is completed; landscape and/or sodding not designated in bid as necessary, coordination with other contractors, stubs and valves for future connections to existing pipes, clean-up, temporary facilities for blow-offs, all cost to clean, repair new or existing piping and appurtenances, and all equipment and all other work necessary to complete the installation as specified. All hardware (nuts, bolts, washers, etc.) shall be **316 stainless steel**. All below grade metallic appurtenances shall be fusion-bonded epoxy coated on all exterior surfaces according to AWWA C-116 and shall have **Trenton Wax-Tape (or approved equal)** protective coating applied according to the application standards set forth in AWWA C217-09 and the manufacturer's instructions. The Wax-Tape shall be applied above grade and inspected by the County's Inspector/Designee prior to being placed in the trench. The Wax-Tape coating shall consist of three components: Primer, Wax-Tape, and Outer Wrap. Water main shall be C900 DR14 PVC at a minimum depth of 36". Contractor to assume all existing pipe is unrestrained at connection points and contractor shall restrain existing pipes per Collier County standards.

2.2 Gate Valves

- A. Measurement for Gate Valves, except as otherwise specified, will be based on the number of actual gate valves installed and accepted.
- B. Payment for furnishing and installing gate valves will be made at the appropriate contract unit price per gate valve installed which price and payment shall be full compensation for all labor and materials associated with furnishing, installing and testing the valve, valve stem, mechanical restraints (not listed in a separate pay item), restraint of existing mains, valve nut with extension, tie rods, valve box, valve box adjustments or extensions, valve concrete pad, valve disk, valve cover, and required marker balls. This item also includes the installation of base material below the valve as required in accordance with Collier County standards. All hardware (nuts, bolts, washers, etc.) shall be **316 stainless steel**. All below grade metallic appurtenances shall be fusion-bonded epoxy coated on all exterior surfaces according to AWWA C-116 and shall have **Trenton Wax-Tape (or approved equal)** protective coating applied according to the application standards set forth in AWWA C217-09 and the manufacturer's instructions. The Wax-Tape shall be applied above grade and inspected by the County's Inspector/Designee prior to being placed in the trench. The Wax-Tape coating shall consist of three components: Primer, Wax-Tape, and Outer Wrap.

2.3 Fire Hydrant Assemblies

- A. Measurement for Fire Hydrant Assemblies, except as otherwise specified, will be based on the number of fire hydrants installed and accepted.
- B. Payment for furnishing and installing the fire hydrant assemblies will be made at the appropriate contract unit price per fire hydrant assembly installed which price and payment shall be full compensation for all labor and materials required to furnish and install the tee on the water main, all necessary fittings, joint restraint from the valve to the tee, necessary piping from the tee to the hydrant location with the installation of barrel (riser) section to meet finished grade at the locations depicted in the drawings, hydrant extension if needed, deflections under/over existing or proposed utilities, swales, or stormwater improvements; control gate valve, valve box, pavement marker, coordination with the fire department, chains, and any concrete work. Contractor is responsible to set the hydrant to grade in accordance with the details shown on the Plans and Collier County Specifications. All hardware (nuts, bolts, washers, etc.) shall be **316 stainless steel**. All below grade metallic appurtenances shall be fusion-bonded epoxy coated on all exterior surfaces according to AWWA C-116 and shall have **Trenton Wax-Tape (or approved equal)** protective coating applied according to the application standards set forth in AWWA C217-09 and the manufacturer's instructions. The Wax-Tape shall be applied above grade and inspected by the County's Inspector/Designee prior to being placed in the trench. The Wax-Tape coating shall consist of three components: Primer, Wax-Tape, and Outer Wrap.

2.4 2" Water Services

- A. Measurement for 2" Water Services, except as otherwise specified, will be based on the number of water services by type actually installed and accepted.
- B. Payment for furnishing and installing water services will be made at the appropriate Contract unit price per each 2" polyethylene water service from the water main to and including the curb stop within the meter box acceptably installed which price and payment shall be full compensation for all labor, materials, and equipment to install all necessary pipe, fittings, connections, conduits/casings, meter stops, stainless steel tapping saddles, tapping sleeves, curb stops, electronic marker at curb stop and water main connection, locking curb stops at vacant properties as specified on the drawings, deflections, water meter/meter box adjustments as may be determined in the field, connection to existing meters, protection of existing utilities and facilities, removal of asphalt along utility corridor, placement of temporary asphalt along the utility corridor, removal and replacement of shrubs, pavement, culverts and storm sewers, sidewalks and other surface materials not specifically designated in the Bid, and all other work required for a complete installation. All hardware (nuts, bolts, washers, etc.) shall be **316 stainless steel**. All below grade metallic appurtenances shall be fusion-bonded epoxy coated on all exterior surfaces according to AWWA C-116 and shall have **Trenton Wax-Tape (or approved equal)** protective coating applied according to the application standards set forth in AWWA C217-09 and the manufacturer's instructions. The Wax-Tape shall be applied above grade and inspected by the County's Inspector/Designee prior to being placed in the trench. The Wax-Tape coating shall consist of three components: Primer, Wax-Tape, and Outer Wrap.

2.5 Water Meter Boxes and Backflow Devices

- A. Measurement for Water Meter Boxes and Backflow Devices except as otherwise specified, will be based on the number of meter boxes and backflow devices installed and accepted.
- B. Payment for Water Meter Boxes, and Backflow Devices, including furnishing and installing new meter boxes, relocating existing meters, and replacing existing or installing new backflow devices (provided by the County), will be made at the Contract unit price per each meter box, meter and backflow device installed (and relocated if necessary per the direction of Collier County) and accepted which price and payment shall be full compensation for all labor, material, and furnishing and installing the piping, fittings, conduit/casings, bushings, reducers, adaptors, grading, restoration and all work necessary to connect private property water service piping to relocated meters as deemed necessary in the field or as depicted on the plans. All work on private property piping shall be performed by a Florida Licensed Plumbing Contractor. For County provided backflow device pickup, it will be the responsibility of the Contractor to pick up parts at the Water Distribution Warehouse at 4370 Progress Avenue as needed and will need to sign the Parts Request Form upon pickup to confirm that all parts are received. All parts requests should be made in writing at least three (3) business days in advance before request for pick up. Parts requests can

be emailed to the project manager. The County shall provide all the necessary paperwork associated with the new backflow devices or backflow device replacements. All existing materials removed shall be returned to the County or disposed of by the Contractor (at no additional cost) at the County's discretion. Contractor is responsible for furnishing and installing connection parts and fittings for backflow device including C87 style adaptors which are required at the below grade connections to PVC on the customer side of the backflow (i.e. ¾" C87-33-NL or ¾" x 1" C87-34-NL adaptors). New meter boxes shall be Fibrelyte Composite FL12 with Fibrelyte Composite D (AMR and Reader Door) cover.

2.6 Water Meter Boxes (vacant property)

- A. Measurement for Water Boxes, except as otherwise specified, will be based on the number of meter boxes installed and accepted.
- B. Payment for furnishing and installing new meter boxes to vacant properties will be made at the Contract unit price per meter box installed and accepted, which price and payment shall be full compensation for all labor, furnishing and installing all material fittings, conduit/casings, bushings, reducers, adaptors, grading, restoration and all work necessary to connect the service to the proposed meter boxes and locking curb stop as depicted on the plans. All existing meter boxes removed shall be returned to the County or disposed of by the Contractor (at no additional cost) at the County's discretion. New meter boxes shall be Fibrelyte Composite FL12 with Fibrelyte Composite D (AMR and Reader Door) cover.

2.7 Connection to Existing Water Main

- A. Measurement for Connection to Existing Water Main, except as otherwise specified, will be based on the number of connections actually installed and accepted.
- B. Payment for connecting the newly constructed water main to the existing water main will be made at the appropriate Contract unit price per each connection acceptably installed which price and payment shall be full compensation to furnish and install all fittings, connections, insert valves and line stops, tapping sleeve and valve with valve box, blow-offs, miscellaneous piping not included under a separate bid item; restraining existing and proposed piping, removal and replacement of existing concrete restraints as necessary, concrete work, field measurements, protection of existing utilities and facilities, bacteriological sample points testing, and all other work required for a complete installation.

2.8 Air Release Valves

- A. Measurement for Air Release Valves, except as otherwise specified, will be based on the number of air release valves installed and accepted on the potable water main.
- B. Payment for furnishing and installing air release valves will be made at the appropriate contract unit price per each air release valve installed and accepted which price and payment shall be full compensation to furnish and install the valve, complete with tapping saddle, ballcorp, curb stop, supports, vents, vault, footing, frame, cover, access lid, piping, fitting and bends, enclosures, deflections under/over existing or

proposed utilities, swales, or stormwater improvements, and other appurtenances. Necessity and location (to be field determined) of air release valves installed shall be at the discretion of County. All hardware (nuts, bolts, washers, etc.) shall be **316 stainless steel**. All below grade metallic appurtenances shall be fusion-bonded epoxy coated on all exterior surfaces according to AWWA C-116 and shall have **Trenton Wax-Tape (or approved equal)** protective coating applied according to the application standards set forth in AWWA C217-09 and the manufacturer's instructions. The Wax-Tape shall be applied above grade and inspected by the County's Inspector/Designee prior to being placed in the trench. The Wax-Tape coating shall consist of three components: Primer, Wax-Tape, and Outer Wrap.

2.9 Conflict Avoidance (Deflection)

- A. Measurement for each Conflict Avoidance constructed (horizontal or vertical deflection) will be based on the number of each conflict avoidance of existing utilities and drainage installed and accepted.
- B. Payment for conflict avoidance not included in a separate pay item and not already noted on the plans, will be made at the appropriate contract unit price per each deflection installed and accepted which price and payment shall be full compensation to furnish and install pipe, fittings, ARVs as required (not included in another pay item), restraints, concrete work, existing utility protection and restraints, and any other incidentals necessary for a complete installation as specified herein. The linear feet of new water main piping installed associated with conflict avoidances shall be paid for under a separate pay item and will be measured, in a straight line, between the fitting that begins the deflection and ends the deflection.

2.10 Abandon, Cap, and Grout Fill Existing 6" Water Main

- A. Measurement for water main (AC, PVC, DI) grouting, except as otherwise specified, will be based on the linear feet of water main grout filled and accepted.
- B. Payment will be made at the appropriate contract unit price for each linear foot of existing 6" water main and all associated appurtenances and fittings not incidental to construction of new facilities, and that are in accordance with the Plans or as directed by the Engineer, to be abandoned and grouted in place. Payment shall include all labor, materials, equipment and accessories required to complete installation. Each section of water line to be abandoned shall be plugged with a cap or cement mortar mix, the length of which shall be a minimum of at least two pipe diameters in thickness. A PVC grout/vent tube shall be grouted in place at the top of the pipe during installation of the cement mortar plug. The grout/vent tube shall not extend more than 4 feet past the cement mortar plug into the line to be abandoned. The vent tube shall be extended at least 3 feet above the invert of the line. An approved grout mix shall be continuously pumped through grout tube until grout mix returns out of vent tube. The head pressure needed to make cement return through the vent tube shall be maintained for at least 10 minutes after return occurs.

2.11 Removal and Disposal of Asbestos Concrete Water Main

- A. Measurement for removal and disposal of the existing asbestos concrete water main will be based on the laying length of the pipe in linear feet actually removed and disposed of as measured along the centerline of the pipe, including length of fittings, measured along the centerline of pipe removed as necessary within the project area.
- B. Payment for removing and disposing of asbestos concrete pipe will be made at the appropriate contract unit price per linear foot in accordance with Collier County Standard and as specified herein. Payment shall include all testing, including air monitoring. Each individual section (20' max) of asbestos concrete water main removed shall be individually wrapped and marked for disposal prior to being placed in a lined dump truck for transport to the landfill. One copy of the waste manifest from the disposal site shall be provided to Collier County within 48 hours of receipt. The Collier County landfill will not accept loads after 3pm (Monday through Friday) or on Saturday, Sunday, or Collier County observed holidays.

SECTION 3: WASTEWATER SYSTEM

3.1 Sanitary Sewer Force Main (DR11 IPS HDPE)

- A. Measurement for furnishing and installing the sanitary sewer force main, except as otherwise specified, will be based on the laying length of the pipe in linear feet actually placed as measured along the centerline of the completed pipe, including length of fittings measured along the centerline measured to the nearest foot, between the limits shown on the Drawings and restraint of pipe as required by contract documents.
- B. Payment for furnishing and installing sanitary sewer force main will be made at the Contract unit price per linear foot for laying of the pipe or horizontally directionally drilling the pipe, support of existing and proposed utility components including plugs/caps; grading and compaction; field adjustments, and temporary facilities for testing. Payment shall also include furnishing and installation of all pipe fittings, deflections, restraints, detectable tape, pretesting, flushing of main, joint restraints, pressure testing, insulated conducting wire, driveway removal and replacement (not included in another pay item), asphalt removal and replacement, curb and gutter removal and replacement, and all equipment and all other work necessary to complete the installation as specified. Contractor to assume all existing pipe is unrestrained at connection points and restrain existing pipes per Collier County standards.

3.2 Conflict Avoidance (Deflection)

- A. Measurement for each Conflict Avoidance constructed (horizontal or vertical deflection) will be based on the number of each conflict avoidance of existing utilities and drainage installed and accepted.
- B. Payment for conflict avoidance not included in a separate pay item and not already noted on the plans, will be made at the appropriate contract unit price per each deflection installed and accepted which price and payment shall be full compensation

to furnish and install pipe, fittings, ARVs as required (not included in another pay item), restraints, concrete work, existing utility protection and restraints, and any other incidentals necessary for a complete installation as specified herein. The linear feet of new sanitary sewer force main piping installed associated with conflict avoidances shall be paid for under a separate pay item and will be measured, in a straight line, between the fitting that begins the deflection and ends the deflection.

3.3 Plug Valves

- A. Measurement for furnishing and installing plug valves, except as otherwise specified, will be based on the number of plug valves installed and accepted on the sanitary sewer force main.
- B. Payment for furnishing and installing plug valves will be made at the Contract unit price per valve installed and accepted. This item includes the valve, valve box, vault or housing, concrete work, operators, incidentals, and all necessary labor, and equipment for installation, including valve stem, valve box extensions and adjustments. This item also includes the installation of base material below the valve in accordance with Collier County standards.

3.4 Air Release Valves

- A. Measurement for furnishing and installing Air Release Valves, except as otherwise specified, will be based on the number of 316 stainless steel air release valves (2") installed and accepted on the sanitary sewer force main.
- B. Payment for furnishing and installing air release valves will be made at the appropriate contract unit price per each air release valve installed and accepted which price and payment shall be full compensation to furnish and install the valve, complete with tapping saddle, ballcorp, curb stop, supports, vents, vault, footing, frame, cover, access lid, piping, fitting and bends, enclosures, deflections under/over existing or proposed utilities, swales, or stormwater improvements, and other appurtenances. Necessity and location (to be field determined) of air release valves installed shall be at the discretion of County.

3.5 Force Main Maintenance Ports

- A. Measurement for furnishing and installing Force Main Maintenance Ports, except as otherwise specified, will be based on the number of maintenance ports installed and accepted on the sanitary sewer force main.
- B. Payment for furnishing and installing maintenance ports will be made at the appropriate contract unit price per each maintenance port installed and accepted which price and payment shall be full compensation to furnish and install the maintenance ports in accordance with the details included in the construction plans, under/over existing or proposed utilities, swales, or stormwater improvements, and other appurtenances. Final location of maintenance ports shall be field determined by County.

3.6 Connection to Existing Force Main (8" Cast Iron)

- A. Measurement for Connection to Existing Force Main, except as otherwise specified, will be based on the number of connections actually installed and accepted.
- B. Payment for connecting the newly constructed force main to the existing force main will be made at the appropriate Contract unit price per each connection acceptably installed which price and payment shall be full compensation to furnish and install all fittings, maintaining the wastewater collection system in operation at all times, bypass pumping, plugs, and pumper/vacuum trucks as necessary; support of existing and proposed utility components including; plugs/caps, draining of existing force main; grading and compaction; field adjustments, and temporary facilities for testing. Payment shall also include furnishing and installation of all sidewalk and driveway removal and replacement (not included in another pay item), asphalt removal and replacement, curb and gutter removal and replacement, restraints, and all equipment and all other work necessary to complete the connection. Contractor to assume all existing pipe is unrestrained at connection points and restrain existing pipes per Collier County standards.

3.7 Low Pressure Service Laterals & Collection Boxes

- A. Measurement for furnishing and installing low pressure service laterals & collection boxes will be based on the number of each low pressure service laterals & collection boxes installed and accepted.
- B. Payment for furnishing and installing low pressure service laterals & connection boxes will be made at the appropriate Contract unit price per 1-1/4" HDPE IPS DR11 service and connection box acceptably installed, including all necessary pipe, electrofusion saddle tees, electrofusion couplings, 1-1/4" stainless steel combo curb stops/check valves (lateral kit) with welded plug, Fibrelyte Composite FL12 Meter Boxes (or equal) with solid cover marked "SEWER", protection of existing utilities and facilities, service markers, removal and replacement of landscaping, pavement, sidewalks and other surface materials not specifically designated in the another pay item with compaction per FDOT standards, and all other work required for a complete installation. Only one connection to the sewer force main shall be allowed per low pressure service lateral which shall be in a straight line, perpendicular to the sewer force main (unless otherwise approved by the County), to the final location of the County owned combo curb stop/check valve. The location of the new low pressure service laterals shall be determined in the field by Collier County and the individual property owner's and shall be marked in the Contractor's provided red line as-builts. All driveways shall remain in place; if driveways are disturbed or damaged, contractor shall restore/replace to pre-construction conditions up to the entire driveway within the easement area as agreed upon by County, EOR, and CEI.

3.8 Low Pressure Collection System & Permitting

- A. Measurement for furnishing and installing low pressure collection systems will be based on the number of each low pressure collection system installed and accepted.

- B. Payment for furnishing and installing low pressure collection systems will be made at the appropriate Contract unit price per low pressure collection system acceptably installed, including all necessary 1-1/4" HDPE IPS DR11 pipe from the combo curb stop/check valve at the easement line to the grinder pump station, 1-1/4" threaded PVC plugs, electrofusion couplings, E/One WH171 simplex grinder pump station package (includes control/alarm panel with generator receptacle) with flood proof cover as required by Collier County, Wager 2100 vent installation (or equal), 18" stainless steel whip, 4" PVC Sch 40 DWV pipe, plumbing clean outs (replace or add new), NEMA 3R Electrical Disconnect Box, connecting the sewer service from the house to the grinder pump station (replace lateral pipe as needed), service markers, removal and replacement of landscaping, trees, pavement, sidewalks, hardscape, driveways, and other surface materials not specifically designated in the another pay item, and all other work required for a complete installation. The 1-1/4" HDPE IPS DR11 pipe shall be installed via directional drill or open cut at the discretion of the Collier County project manager and the EOR based upon existing conditions of existing vegetation, hardscape, etc. The location of the new low pressure collection systems shall be determined in the field by the Collier County project manager and the individual property owner's and shall be marked in the Contractor's provided red line as-builts. This item includes all necessary permitting through the Collier County Building Department and all permits shall be in place prior to installation of low pressure collection systems. Permitting includes, but is not limited to, prepare and submit one (1) Alteration/Remodel Building Permit application per property (address) that shall include a rough site plan with the location of the existing septic tank(s), new grinder pump station location, sewer pipe(s) from the home to the grinder pump station, sewer pipe from the grinder pump station to the County's connection box at the , grinder pump station specifications and details, and the number of bathrooms in the home if the pipe size leaving the home is greater than 6". A notice of commencement (NOC) will be required for every permit/property, signed by the property owner; the NOC will be recorded by Collier County. Contractor shall schedule and be present for inspections and re-inspections as necessary. The Collier County Building Department may require a meeting with the Contractor, County Project Manager, and EOR prior to submitting building permits. All Collier County Building Department permit and inspection fees will be paid for by Collier County.

3.9 Grinder Pump Station Electrical Service & Permitting

- A. Measurement for Grinder Pump Station Electrical Service & Permitting will be based on the number of electrical services installed and accepted.
- B. Payment for Grinder Pump Station Electrical Service & Permitting will be made at the appropriate Contract unit price per grinder station electrical service installed in accordance with the National Electric Code (NEC) and Collier County Building Department requirements, including all necessary Collier County Building Department permitting applications and inspections. This item includes inspecting the existing electrical system and determining the improvements necessary to install the required electrical service for the grinder pump station. Contractor's licensed electrician shall

provide 240V single phase power from each home electrical main panel or FPL meter to the 30 amp disconnect (provided in E/One WH171 package) including coordination with property owners and the required new 30 amp breaker in the home's electrical main panel or at the FPL meter. The 30-amp disconnect panel shall be wall-mounted or post-mounted (per FEMA requirements), as agreed upon by the property owner, County Project Manager, EOR, and Contractor. This item includes all restoration associated with electrical service installation including repairing holes, drywall, block, stucco, ceilings, restore and match paint colors on homes/garages, etc. This item includes all necessary permitting through the Collier County Building Department and all permits shall be in place prior to any electrical work being performed. Permitting includes, but is not limited to, prepare and submit one (1) Alteration/Remodel Building Permit application per property (address) that shall include a rough site plan with the location of the power source and location of new disconnects and panels, load calculations, and a one-line drawing. A notice of commencement (NOC) will be required for every permit/property, signed by the property owner; the NOC will be recorded by Collier County. Contractor shall schedule and be present for inspections and re-inspections as necessary. The Collier County Building Department may require a meeting with the Contractor, County Project Manager, and EOR prior to submitting building permits. All Collier County Building Department permit and inspection fees will be paid for by Collier County.

3.10 Electrical Panel Upgrades

- A. Measurement for Electrical Panel Upgrades will be based on the number of the home electrical main panel upgrades installed and accepted as determined by the Contractor, County Project Manager, CEI, and EOR
- B. Payment for Electrical Panel Upgrades will be made at the appropriate Contract unit price per the home electrical main panel upgrade installed in accordance with the National Electric Code (NEC) and Collier County Building Department requirements, including all necessary Collier County Building Department permit applications and inspections. Contractor's licensed electrician shall provide all necessary upgrades to each home's electrical meter, panel(s), breaker(s), wiring, etc. as needed and determined and agreed upon by the County, CEI, and EOR in order to provide adequate electrical service to the grinder pump station and restoring the homes electrical supply. This item includes coordination with the property owner and FPL, restoration of work site, inspections, fees, and all other labor material or equipment necessary to complete the work. No electrical panel upgrades are to be performed without written direction from the County.

3.11 Septic Tank Abandonments

- A. Measurement for Septic Tank Abandonments will be based on the number of septic tanks abandoned and accepted.
- B. Payment for septic tank abandonments will be made at the appropriate Contract unit price per septic tank acceptably abandoned in accordance with FAC 64F-6.011 with disposal of septage at an FDEP permitted facility, restoration of work site to prior

grade and condition, inspections, and all other labor material or equipment necessary to complete the work. Septic tank abandonments shall be completed by a registered septic contractor or a licensed plumber. The tanks must be pumped out prior to abandonment and the pump out must be completed and logged by a licensed sewage hauler. This item includes application preparation, submittal, and permitting fees to obtain Septic Tank Abandonment Permits with the Florida Department of Health (DOH) for each septic tank abandonment. This item includes permit close out and any coordination/documentation as required by the Collier County Building Department Alteration/Remodel Permits.

END OF SECTION

SECTION IV

SPECIAL PROJECT PROVISIONS

Palm River Area 4 Public Utilities Renewal

1. Storage of material within the right-of-way is not allowed.
2. The Contractor is responsible for obtaining equipment and material staging/storage lots/areas and all necessary permits, ROW, and temporary construction access. For storage areas, the Contractor shall:
 - a. Provide a copy of all Agreement to the County and Engineer of Record.
 - b. Obtain a ROW permit for the storage area.
 - c. Obtain a Temporary Use Permit for the storage area.

Additional conditions/restrictions of staging/storage lot(s):

- d. No storage of excavated material (pipe, structure, concrete, asphalt) in/on staging/ storage lot(s).
- e. No demolition activities including but not limited to processing, sorting, consolidating of pipe, structure, concrete, or asphalt material in/ on staging/ storage lot(s).
- f. Storage/ staging lot(s) shall meet the following minimum requirements:
 - i. Twenty- four (24) feet wide temporary asphalt driveway from the EOP to at least fifty (50) feet into the property. Asphalt driveway shall be 1" of SP 9. 5 with Optional Base Group 1 (4" of limerock). The contractor shall maintain the temporary surface throughout the duration of the project.
 - ii. Six (6) feet tall chain link fence installed around the entire staging area with five (5) feet setback from side and rear property lines (no setback required at ROW line) and continuous 72" tall privacy/wind barrier/screen (green or black) on all sides, including front and gate. The contractor shall maintain the fence and privacy screen throughout the duration of the project.
 - iii. Lockable access gate.
 - iv. Accessing/utilizing the storage/ staging lot(s) only between 7 am and 7 pm Monday - Saturday), except for emergency work.
 - v. No after hour access. All materials for Owner approved work between 7 pm and 7 am shall be delivered to the work site between 7 am and 7 pm, except for emergency work.
 - vi. Maintained daily including, but not limited to: mowing and weeding, litter removal, fence and screen repair as needed, and daily sweeping and dust control.
3. Two (2) weeks prior to beginning construction, the Contractor shall locate by pot holing or soft digging all utilities within the limits of the project and provide the County, EOR, and CEI a report (before construction) of the findings at each location that includes the station and offset, location, utility type, depth from grade, size, material, date, time, and a

minimum of two (2) pictures (an overall site picture and a picture of the utility found). The Contractor shall mark the found utility with a wooden lath and ribbon, with the utility type found, size, and depth written on the lath. This shall be reviewed with the County and Engineer to allow adjustment of infrastructure as required to minimize conflicts. If the Contractor fails to complete this requirement, Contractor payment applications and/or submittals will not be approved.

4. All driveways that are disturbed during construction shall be restored to their previous condition or better, unless otherwise directed by the County. Existing brick pavers shall be placed on pallets, wrapped, and stored onsite to prevent damage. If additional brick pavers are required for restoration, the Contractor shall coordinate with the property owner, County, and CEI to ensure an acceptable matching brick paver is ordered by the Contractor. Decorative and colored concrete driveways shall be restored with color and pattern matching the existing driveway. If a matching color or stamp is unavailable, the contractor shall coordinate with the property owner, County, and CEI to ensure an acceptable (by the property owner, County, and CEI) substitute is used.
5. During construction, the Contractor shall keep one lane of traffic open at all times on all affected roads. Flaggers shall be utilized to assist traffic through the construction zone when two lanes of travel are not provided. Flaggers shall possess a Temporary Traffic Control (TTC) Basic Flagger Certificate per requirements set forth by the Florida Department of Transportation. Access onto existing streets and drives shall be maintained to local traffic, emergency vehicles, delivery vehicles, postal vehicles, public transportation, solid waste and recycling vehicles, and property owners. At all times, access must be provided to existing fire hydrants, valves, meters/backflow devices, manholes, and cleanouts.
6. Notification of road closures must be provided in writing to the Collier County Sheriff's Office and the North Collier Fire Rescue District at least 72 hours in advance of the road closures. Road Closure notification forms shall be submitted to the Collier County Growth Management Department and copies provided to the County Project Manager, EOR, and CEI each week. Access to each residence and business shall be maintained for emergency vehicles at all times. Contractor must provide a road closure plan and schedule for review by the County, EOR, and CEI at least seven (7) days prior to all proposed road closures.
7. The Contractor shall notify Collier County Public Utilities at least ten (10) calendar days in advance of all planned service interruptions and receive County Project Manager's approval before proceeding with planned interruptions.
8. Contractor shall assume all existing water and force mains are unrestrained at the connection points and restrain the mains in accordance with the Collier County Utilities Standards Manual.

9. Work shall be limited to 7:00 AM to 7:00 PM Monday through Saturday. No work shall be permitted on Sundays and Collier County observed holidays which includes but is not limited to: New Year's Day, Memorial Day, 4th of July, Labor Day, Thanksgiving Day, Christmas Day. Additional holidays observed by the County may be added to the list above and no work shall be permitted on those additional holidays.
10. Contractor's site superintendent(s) must attend all meetings relating to the project, including, but not limited to: progress meetings, neighborhood information meetings, on-site meetings, and any other meeting deemed necessary by Collier County.
11. All Collier County Water-Sewer District, Utilities Standards (design criteria, specifications, and details) are applicable to this project and are made part of the Contract Documents by reference to current County Utilities Standards, located at the following web address: <https://www.colliercountyfl.gov/government/public-utilities/water-sewer-district/engineering-and-project-management/resources>. In the event of a conflict between any applicable standard and these specifications and drawings, the more stringent requirement shall apply.
12. Contractor is responsible for all costs associated with installing and testing of all compact fill materials and road base and sub-base to avoid future settlement. Within paved areas, at a minimum, backfill and compaction shall be per detail FDOT Standard Plan Index 125-001 and Specifications Section 125. Perform compaction density tests at all such backfill areas with spacing not to exceed 100 feet apart and on each compacted layer for paved areas.
For unpaved areas, compaction shall be per FDOT index 125-001 and testing shall take place a minimum of every 500 feet, or a minimum of one test per every section of pipe installed. Compaction testing density shall be per ASTM D 1557.
13. Contractor is responsible for all inspections and testing unless otherwise specified. For tests to be made by the Contractor, the testing personnel shall make the necessary inspections, furnish all material and equipment to properly perform the testing, and furnish all results to Collier County for acceptance of all equipment and installation as required.
14. Contractor is responsible for the cost of all testing as required.
15. New water main and service piping (from main to curb stop at meter) shall be constructed, pressure tested, flushed (full bore), and bacteriologically cleared for FDEP clearance.
16. All water services shall be 2" at the connection to the water main and 2" poly-tubing up to the curb stop.
17. All water main hardware (nuts, bolts, washers, etc.) shall be 316 stainless steel.

18. All below ground metallic water main appurtenances shall be fusion-bonded epoxy coated on all exterior surfaces according to AWWA C-116 and shall have **Trenton Wax-Tape (or approved equal)** protective coating applied according to the application standards set forth in AWWA C217-09 and the manufacturer's instructions. The Wax-Tape shall be applied above grade and inspected by the County's Inspector/Designee prior to being placed in the trench. The Wax-Tape coating shall consist of three components: Primer, Wax-Tape, and Outer Wrap.
19. Contractor to pre-test all pressure piping and meet AWWA C600-17 (or current edition) allowable loss standards for a minimum of two hours before commencing the pressure test.
20. Clearing and grubbing shall be limited to work areas only. Contractor is responsible for restoring all areas disturbed by their work. All disturbed areas shall be restored to pre-construction conditions. Contractor shall be required to water vegetation replaced until established/rooted.
21. Trees and shrubs within the work area shall be removed as directed by Collier County and the Contractor shall coordinate with the property owner. Private irrigation shall be fully restored to preconstruction condition or better, unless in conflict with new utilities. Full irrigation coverage of property must be maintained during construction and demonstrated following the completion of the work. No additional payment shall be made for restoration.
22. It is the Contractor's responsibility to replace/repair any existing trees, landscaping, sod, irrigation systems, fencing etc. that is damaged/removed outside the limits of the easement (on private property) to their original conditions or better. Contractor to coordinate with property owner and Collier County for access to private property via right of entry.
23. In accordance with Collier County requirements, a pre-construction video (dry and wet conditions) shall be completed and copies shall be provided to the County and Engineer. Contractor shall supplement these videos with still photographs (in addition to the pictures required in the Pre-Construction Assessment Forms) as necessary to reflect existing conditions. This shall include but not be limited to sod type, driveways and driveway culvert, and driveway conditions from the easement to the property structure. The Contractor may be required to restore private properties to conditions better than existing, at no additional cost to the County, if the Contractor fails to sufficiently document existing conditions.
24. Contractor is responsible for all construction layout and preparation of Record Drawings in accordance with County requirements. This includes but is not limited to location of

existing easement, water main, force main, valves, fire hydrants, water services, wastewater collection system, and approved changes.

25. Contractor shall contact all utility suppliers, including but not limited to Collier County, Comcast, Summit Broadband, Inc., Florida Power & Light, and CenturyLink for locating of their facilities. Contractor shall coordinate with these utilities for protection and adjustment of their facilities as needed. All costs shall be included in individual bid items.
26. Contractor is responsible for all Maintenance of Traffic (MOT) for the project. MOT shall be in accordance with the FDOT Standard Index and the Manual of Uniform Traffic Control Devices (MUTCD, Part VI). Existing traffic conditions may warrant night work. If night work is required, the Contractor will be responsible for proper MOT at no additional cost.
27. The Contractor is responsible for maintaining all work areas in a safe and clean manner as identified in the County Utilities Standards Manual. This includes but is not limited to daily watering and intermediate watering as needed of bare soil roadways and sweeping of roadway and sidewalk surfaces.
28. Contractor is responsible for restoration of areas damaged outside of work area if the damage is a result of the construction including, but not limited, to detours and construction traffic non-contiguous to the project area, offsite construction storage areas, receiving water bodies, etc.
29. If road/driveway dewatering ramps are utilized at roadways/driveways, the contractor shall provide barricades on either side of the ramps to protect/warn vehicles from driving over manifolds/connection sections on either side of all ramps.
30. All excavation shall be unclassified with no additional payment to be made for rock, unsuitable material, or dewatering. The Contractor is responsible for making his own site observations and exploration to determine site conditions prior to bidding.
31. The Contractor shall prepare and provide for review by the Owner and Engineer an MOT Plan, Asbestos Removal Plan, Tropical Storms and Hurricanes Plan, Sewer Bypass Plan, and Safety Program/Risk Management Program prior to construction commencement.
32. The contractor is responsible for providing a third-party independent consultant to perform vibration monitoring adjacent to existing homes and structures during all construction activities. The monitoring equipment shall be located within the equipment manufacturer's allowable tolerance distance from construction activities at all times. All monitoring shall be done at the limits of the right-of-way. Reports shall include location of the equipment, time, and maximum PPV, either once per day if the vibration monitor is not relocated, or upon each relocation of the vibration monitoring device. Upon either detecting vibration levels reaching 0.5 inches per second or damage to the structure, immediately stop the source of vibrations, backfill any open excavations, notify the

Engineer and provide a corrective action plan for acceptance by the Engineer. Vibration monitoring and reporting shall follow the U.S. Bureau of Mines standards and reports shall be signed and sealed by a State of Florida Professional Engineer and delivered weekly to the County, EOR, and CEI. The Contractor's third-party independent consultant shall be the only party allowed to determine the proper location for monitoring and setting up the vibration monitoring equipment. Vibration monitoring reports, signed and sealed, shall include a statement whether or not the recorded levels met or did not meet 0.5 inches per second and the recommended levels stated in the U.S. Bureau of Mines, R18507 *Structural Response and Damage Produced by Ground Vibration from Blasting*. If at any time a structural damage complaint is received by the County, the Contractor shall, within 2 business days provide, a signed and sealed vibration monitoring report for the affected area.

33. Prior to beginning construction, the Contractor shall submit a Pre-Construction Assessment Form for each property prior to commencement for the phase of work during which the property will be impacted. The Pre-Construction Assessment Form is included in Section IX of this document. An editable electronic version of the form will be provided to the Contractor. Each form shall be prepared electronically and submitted as an un-editable PDF to the County. The file name shall reflect the property address in the following format: Street Name, Property Number.
34. The Contractor shall conform to the requirements in Collier County Ordinance 2019-17: An Ordinance providing for establishment of a water pollution control and prevention ordinance, providing for repeal of Ordinance No. 87-79, as amended, and resolution No. 88-311: providing for inclusion in the Code of Laws and Ordinances; providing for conflict and severability; and providing for an effective date. This includes the project area and outside the project area (i.e. storage lots).
35. It is recommended that the Contractor review and follow the recommendations for field measuring turbidity pursuant to the following FDEP SOP FT1600:
<https://www.youtube.com/watch?v=k6x22q9uoAY&feature=youtu.be>
36. The Contractor shall coordinate with all other Contractors within the project limits for work within the ROW/Easement and/or private property and shall make accommodations to not inhibit work by other Contractors.
37. Coordination with the following agencies, above and beyond the Collier County Road Alert, may be required throughout the duration of construction: USPS, Collier County Sheriff's Office, Fire Department and EMS, Waste Management (garbage and recycling), and Collier County Public Schools (school bus routes). Additionally, if required by the USPS, a "mailbox bank" shall be installed by the Contractor at no additional charge.
38. The Contractor shall replace all signs damaged by contractor with new signs, posts, and hardware to meet current Collier County and FDOT specifications/standards.

39. All sign related work to be coordinated with Felix Burgos, 239-253-3160, to maintain integrity of the County's sign asset database. Contractor to follow Traffic Operations Signing and Pavement Markings Special Provision details which indicate using a 2.5" x 2.5" galvanized metal square tubular sign post.

SECTION V
PERMITS

Palm River Utilities Renewal
Area 4

The following Permits for the Project will be obtained by Collier County or are the Contractor's responsibility to obtain, as noted below. Copies of all obtained Permits shall be made available to the Contractor. It shall be the Contractor's responsibility to read and understand all Permits and Permit Conditions.

1. FDEP Dewatering: The Contractor is required to obtain coverage under the Florida Department of Environmental Protection (FDEP) Generic Permit for Discharge of Groundwater from Dewatering Operations prior to discharging produced groundwater from dewatering activities. Alternatively, the Contractor may elect to obtain coverage under the Generic Permit for Stormwater Discharge from Large and Small Construction Activities, which will cover both construction and dewatering operations.
2. Collier County Temporary Use Permit (for storage areas) - To be submitted by the Contractor.
3. Collier County ROW Permit - To be submitted by the County with coordination from the Contractor.
4. Collier County SDPI Permit – To be obtained by the County
5. FDEP Permit to Construct PWS Components: To be obtained by the County
6. FDEP Wastewater Permit: To be obtained by the County
7. SFWMD Generic Permit for Discharge of Ground Water from Dewatering Operations
8. SFWMD Dewatering Permit Letter Modification and Extensions – To be obtained by the County with coordination from the Contractor, if required.
9. Collier County Alteration/Remodel Building Permit (Plumbing and Electrical) for each property for complete grinder pump installation.
10. FDEP/FDOH Permit for Septic Tank Abandonment.

SECTION VI

PALM RIVER PUBLIC UTILITIES RENEWAL

MATERIAL DELIVERY/RETURN CONFIRMATION

NOTE: This form is to be completed by Contractor and County Representative at time of all material delivery to site and at time of all pick up of returned materials. All material shall be reviewed for condition, type, size and quantity. Delivery or pick-up tickets should be attached to form.

DATE: _____

COUNTY REPRESENTATIVE: _____

CONTRACTOR REPRESENTATIVE: _____

MATERIAL DELIVERY OR PICKUP: _____

DELIVERED OR PICKED UP BY: _____

MATERIAL (LIST BELOW)

	<u>ITEM</u>	<u>SIZE</u>	<u>QUANTITY</u>	<u>COMMENTS</u>
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

PROVIDE ADDITIONAL COMMENTS AS NECESSARY: _____

County Representative

Contractor Representative

SECTION VII

RISK MANAGEMENT DEPARTMENT ASBESTOS REMOVAL PLAN



SUBJECT: ASBESTOS REMOVAL & CONTRACTOR OPERATIONS

REFERENCE: CMA 5902 & ALL APPLICABLE STATE, LOCAL, COUNTY & FEDERAL REGULATIONS

EFFECTIVE DATE: 10/27/10

REVISION DATE: 7/2017

Purpose

This Asbestos Removal and contractor operations Written Plan establishes Collier County's requirements for the safe work practices whenever asbestos containing material and/or suspected asbestos containing material is disturbed. This may include the demolition of buildings, insulation materials, underground piping, etc. This written program applies to all asbestos removal operations performed within Collier County Government where employees may encounter asbestos or suspected asbestos containing material as part of their job duties. This plan also outlines the minimum requirements our contractors must follow when encountering asbestos or suspected asbestos containing material during demolition, insulation removal and/or underground piping repair, replacement or removal.

Scope

The control of asbestos removal via written programs and task procedures, such as JSA's are only one component of assuring "cradle to grave" control over the safe and environmentally responsible removal of asbestos. Therefore, affected departments have the responsibility in conjunction with Risk Management to ensure the work they perform as well as the work performed by contractors is completed according to all applicable OSHA, EPA, FDEP and/or DOT regulations. This plan is intended for Collier County buildings, utilities and property under control of the board of County Commissioners and is not designated for asbestos identification and/or removal activities within public schools operations that are regulated under 40 CFR part 763 Subpart E.

Administrative Duties/Responsibilities

Collier County's Risk Management Department has developed this written plan and maintains the master copy of this asbestos removal plan. This department is responsible for all facets of the master plan and has full authority to make necessary decisions to ensure the success of this plan. Collier County's Safety staff is also qualified, by appropriate training and experience that is commensurate with the complexity of the plan, to administer or oversee our asbestos removal written plan, which includes shutting down any operations that do not meet BCC/Local/State or Federal EHS Regulations, Guidelines or Best Practices.

Department / Site-Specific Plans

The master plan does not contain all site-specific additions to this master plan. Development, maintenance and revision of site-specific plans are the responsibility of each affected department and will vary by department. Site-specific Plans shall be developed using a "Department Insert" to accompany the master copy of this plan.

Records Retention

- Each facility/department is responsible to maintain copies of all forms indefinitely. Where revisions are made to their site-specific plan, the outdated document shall be retained indefinitely.
- Each facility/department is responsible to maintain copies of all employee training lists, waste disposal manifests and any inspection forms indefinitely.

The Risk Management Department maintains a copy of the master plan and copies of completed and submitted site-specific plans. Each affected department is responsible for maintaining the master plan and a site-specific plan and that the Contractor has a copy of the plan.

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Section I Definitions

Asbestos: includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that has been chemically treated or altered.

Asbestos-Containing Material (ACM): any material containing more than one percent asbestos.

Class I Asbestos Work: the removal of thermal system insulation and/or surfacing material (ACM or PACM).

Class II Asbestos Work: removal of any ACM which is not Class I, such as wallboard, floor tile, ceiling tile, linoleum, transite board, roofing materials and mastics.

Class III Asbestos Work: repair and maintenance operations where ACM is likely to be disturbed.

Class IV Asbestos Work: maintenance and custodial activities during which employees contact but do not disturb ACM, and activities to clean up dust and debris which may be generated by Class I, II, or III work.

Clearance Air Monitoring: Air monitoring conducted by an Asbestos Project Monitor at the conclusion of an asbestos project. Clearance air monitoring includes the successful completion of a final visual inspection for work area debris and the collection and analysis of air samples in accordance with AHERA protocols.

Competent person means, in addition to the definition in 29 CFR 1926.32 (f), one who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to eliminate them, as specified in 29 CFR 1926.32(f): in addition, for Class I and Class II work who is specially trained in a training course which meets the criteria of EPA's Model Accreditation Plan (40 CFR 763) for supervisor, or its equivalent and, for Class III and Class IV work, who is trained in a manner consistent with EPA requirements for training of local education agency maintenance and custodial staff as set forth at 40 CFR 763.92 (a)(2).

Demolition - The wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations or the intentional burning (i.e. practice burns) of any facility.

DOT – U.S. and/or Florida Department of Transportation

EPA – U.S Environmental Protection Agency

FDEP – Florida Department of Environmental Protection

Friable Asbestos Containing Material: any material containing more than one percent asbestos, which when dry, may be crumbled, pulverized or reduced to powder by hand pressure.

High Efficiency Particulate Air (HEPA) Filter: a filter capable of trapping and retaining at least 99.97 percent of all mono-dispersed particles of 0.3 micrometers in diameter.

Negative Exposure Assessment (NEA): a demonstration by the employer, which complies with the criteria in OSHA 29 (CFR) 1926.1101 paragraph (f) (2) (iii), that the employee exposure during the monitored operation is expected to be consistently below the PELs.

Non-Friable Asbestos Containing Material: materials in which asbestos is bound in a matrix which cannot, when dry, be crumbled, pulverized or reduced to powder by hand pressure (such as floor tile and asphaltic building materials).

NESHAP – EPA mandated National Emissions Standards for Hazardous Air Pollutants

OSHA – U.S. Occupational Health and Safety Administration

Permissible Exposure Limits (PELs): (1) Time Weighted Average (TWA): the employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 0.1 fiber per cubic centimeter as an eight (8) hour time weighted average. (2) Excursion Limit (EL): the employer shall ensure that no employee is exposed to an airborne concentration of asbestos in excess of 1.0 fiber per cubic centimeter of air as averaged over a sampling period of thirty (30) minutes.

Presumed Asbestos Containing Material (PACM): thermal system insulation and surfacing material in buildings constructed no later than 1980, are assumed to contain asbestos until it has been analyzed to verify or negate its asbestos content.

Regulated Asbestos Containing Material: (RACM) is (a) friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

Regulated Area: means an area established by the employer to distinguish areas where airborne concentrations of asbestos exceed or there is a reasonable possibility that they may exceed the permissible exposure limits.

Renovation - Altering a facility or one or more facility components in any way, including the stripping or removal of Regulated Asbestos Containing Materials (RACM) from a facility component. A renovation could be, but not limited to, any interior renovation or remodel not affecting load-supporting structural members or a roof replacement.

Vinyl Asbestos Floor Tile (VAT): vinyl floor tile and in some cases its mastic which contain more than one percent asbestos and must be handled as ACM.

Section II – Applicable Regulatory Requirements

OSHA – 29 CFR 1910.1001 - Worker protection measures-engineering controls, worker training, labeling, respiratory protection, bagging of waste, permissible exposure level.

OSHA – 29 CFR 1926.1101 - Worker protection measures for all construction work involving asbestos, including demolition and renovation-work practices, worker training, bagging of waste, permissible exposure level.

DOT – 49 CFR Parts 171 and 172 - Regulates the transportation of asbestos-containing waste material. Requires waste containment and shipping papers.

EPA – 40 CFR Part 61 Subpart M – Regulates disposal activities in regards to emissions standards for manufacturing and removal of asbestos.

EPA – 40 CFR Part 763 Subpart G - Protects public employees performing asbestos abatement work in States not covered by OSHA asbestos standard.

EPA – 40 CFR Part 763 Subpart E – Sets forth training requirements for asbestos workers performing work in Schools, Public Buildings, or Commercial Buildings.

F.A.C. – 62-257 – Florida Department of Environmental Protection asbestos removal program

FS Section 469 – Licensing Requirements

Section III –Inventory, Surveillance, and Notification

Collier County Departments are required to maintain an Inventory of all asbestos containing material (appendix A). All accessible functional spaces with known or suspected asbestos containing materials other than flooring are required to be visually inspected at a minimum of twice a year. Spaces with known or suspected asbestos containing flooring are inspected once per year. The current condition of the asbestos containing material is evaluated relative to its condition at previous surveys. Deterioration or a change in the condition of any asbestos containing material is documented. If this deterioration results in a significant health risk to building occupants the deteriorated area is scheduled for hazard abatement.

Inspections are performed by individuals who are currently certified as EPA Asbestos Building Inspectors or who have been trained to recognize asbestos hazards. Each affected department is responsible to ensure that properly trained personnel are available for inspections. This person or persons shall be designated on their Department/Site-Specific Insert that accompanies this master plan.

Buildings presumed to contain asbestos containing materials are posted with a notice sign alerting occupants to the presence of asbestos and guidance on where to find further information. These notices are posted inside of the buildings near the entrances.

Contractors performing work on a Collier County Building or utility that contains asbestos are notified about the presence of asbestos containing materials.

An updated asbestos survey, identifying both friable and non-friable asbestos containing materials, must be conducted of any building or section of a building that is scheduled for renovation or demolition. A draft copy of the survey must be reviewed by the Risk Management for completeness prior to accepting the final product. A copy of the updated survey must be kept on site until the renovation or demolition activities are completed. The survey must be conducted under the supervision of a Florida licensed asbestos consultant. Individuals performing asbestos surveys must be certified as EPA asbestos inspectors through a Florida approved training provider.

Occupants of areas adjacent to planned asbestos removal projects must be notified prior to the start of removal activities. This notification may be in writing or by personal communication and must include information pertaining to what material is being removed and what measures are being taken to prevent exposure to asbestos fibers.

Section IV – Training Requirement

There are various levels of training required depending on the type of involvement with asbestos materials. Each department is responsible for ensuring employees are trained for their level of asbestos involvement. Environmental Health and Safety staff can guide and assist in training. Documentation of training activities must be provided to the Risk Management office.

Awareness Training - This is the most basic level of training, and is required for custodial and maintenance employees assigned to a building or utility containing asbestos or presumed asbestos containing materials.

Class I or Class II- Employees who will be removing or disturbing asbestos or presumed asbestos containing materials must be trained equivalent in curriculum, training method and length to the EPA Model Accreditation Plan asbestos abatement worker training. The state of Florida requires at a minimum this course be four days in length.

Class II Cement piping – All workers must have completed an approved 8 hour class II Cement Piping Removal course

Class III or Class IV– Employees must be trained in aspects of asbestos handling appropriate for the nature of the work, to include procedures for setting up glove bags, and mini enclosures, practices for reducing asbestos exposures, use of wet methods, the content of OSHA Construction Standard for Asbestos, and the identification of asbestos. Such training shall include successful completion of a course that is consistent with EPA requirements for training of local educational agency maintenance and custodial staff as set forth at 40 CFR 763.92(a)(2), or equivalent.

Other Requirements – Employees involved in class I, II, or III asbestos work must also have medical clearance, be properly fitted, and instructed in the usage and care of a respirator, be enrolled in the collier county medical surveillance program as outlined in section VI.

Section V - Use of Personal Protective Equipment

Respiratory Protection – Respiratory protection must be worn at all times during any work that may or has the potential to disturb asbestos. At a minimum the respiratory requirements are a 100 percent efficiency HEPA filter.

Eye protection – Goggles must be worn at all times during any work that may or has the potential to disturb asbestos

Protective Clothing – Protective clothing must be worn at all times during asbestos work. At a minimum this includes a Protective suit (i.e. Tyvek), disposal inner and outer gloves, a disposable hood, and boot covers.

Decontamination – All clothing worn during asbestos work must be discarded or decontaminated once the work is complete. All disposed clothing will be wrapped with the asbestos containing material and disposed of in a similar way. At a minimum staff must decontaminate equipment such as tools and respirators with light soap and water.

Example: Contaminated clothing, gloves and material wrapped securely in 6 mil or thicker plastic, and then adequately taped to ensure no contaminated material can escape.

Section VI – Medical Surveillance

It has been determined that Collier County Government does not have any division, department or section/location that performs asbestos work for a combined total of 30 days or more per year or are exposed above the permissible exposure or excursion limit. Therefore, the following medical requirements are only listed should the agency meet the below listed requirements in the future.

Medical examinations and consultations are required for all employees who are engaged in asbestos work for a combined total of 30 or more days per year or; are exposed at or above the permissible exposure limit or excursion limit; and for employees who wear negative pressure respirators. Days when fewer than sixty minutes of asbestos work are completed are not included in the 29-day count.

These examinations are repeated at least annually thereafter. If the examining physician determines that any of the examinations should be provided more frequently than specified, affected employees will be examined at the frequencies specified by the physician.

Medical examinations include a medical and work history, with special emphasis directed to the pulmonary, cardiovascular, and gastrointestinal systems. Along with a pulmonary function test, any examinations or tests deemed necessary by the examining physician will be included. A copy of the medical questionnaire can be found in appendix E.

Information Provided to the Physician

The following information must be provided to the physician by the employee's supervisor before the physical.

- A description of the affected employee's duties as they relate to the employee's exposure.
- The employee's representative exposure level or anticipated exposure level.
- A description of any personal protection equipment to be used by the employee.
- Any information from previous medical examinations of the affected employee that is not otherwise available to the examining physician.

Physician's Written Opinion

The examining physician provides a written statement consisting of the physician's opinion whether the employee has any detected medical conditions that would place the employee at an increased risk of health impairment from exposure to asbestos. Any recommended limitations on the employee, or on the use of personal protective equipment such as respirators, will be noted in the opinion.

The opinion will also include statements that the employee has been informed by the physician of the results of the medical examination, and any medical conditions that may result from asbestos exposure. A statement will also be included that the employee has been informed by the physician of the increased risk of lung cancer attributable to the combined effect of smoking and asbestos exposure.

The physician will not reveal in the written opinion specific findings or diagnoses unrelated to occupational exposure to asbestos. The supervisor will provide a copy of the physician's written opinion to the affected employee within 30 days from its receipt.

Section VII – FDEP Notification Requirements

The Florida Department of Environmental Protection (DEP) administers an asbestos removal program under Chapter 62-257, Florida Administrative Code. The program's intent is to prevent the release of asbestos fibers to the outside air during demolition or renovation activities.

The program requires prior notification to the DEP on the removal of threshold amounts of asbestos from certain types of facilities. These thresholds are noted below under the renovation and demolition sections. In the event that a threshold is met and notification is required there is a 10 day waiting period from the time DEP has been notified to when renovation

can begin. The waiting period is not required if the removal is for emergency purposes, if the removal is an emergency operation then notification shall be provided to the DEP within 24 Hours.

Renovation - Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations must be followed for all renovations of facilities with at least 80 linear meters (260 linear feet) of regulated asbestos-containing materials (RACM) on pipes, or 15 square meters (160 square feet) of regulated asbestos-containing materials on other facility components, or at least one cubic meter (35 cubic feet) of regulated asbestos-containing materials on other facility components where the amount of RACM previously removed from pipes and other facility components could not be measured before stripping. These amounts are known as the "threshold" amounts.

Demolition - Asbestos NESHAP regulations must be followed for demolitions of facilities with at least 80 linear meters (260 linear feet) of regulated asbestos-containing materials (RACM) on pipes, 15 square meters (160 square feet) of regulated asbestos-containing materials on other facility components, or at least one cubic meter (35 cubic feet) of regulated asbestos-containing materials on other facility components where the amount of RACM previously removed from pipes and other facility components could not be measured before stripping. However, all demolitions must notify the appropriate regulatory agency, even if no asbestos is present at the site, and all demolitions and renovations are "subject" to the Asbestos NESHAP insofar as owners and operators must determine if and how much asbestos is present at the site.

If Category II non-friable ACM has not crumbled, been pulverized or reduced to powder and will not become so during the course of demolition/renovation operations, it is considered non-friable and therefore is not subject to Asbestos NESHAP or FDEP notification requirements. However, if during the demolition or renovation activity it becomes crumbled, pulverized or reduced to powder, it is covered by the Asbestos NESHAP and FDEP requirements.

Prior to all renovation, demolitions, or removal of asbestos contact the Risk Management Department for further regulatory guidance.

Section VIII – Removal and Handling Requirements

A department/Site-Specific program insert must be developed for each new removal task. Where each task is similar in nature, a common procedure, such as a Job Safety Analysis may suffice for the department/site-specific insert.

Regulated area – The area around where the work is being performed must be marked off as a regulated area and can be accessed by individuals who are trained, qualified, and wearing appropriate PPE. There must be signs posted around the work site that are clearly visible, and state the following:

**DANGER
ASBESTOS
CANCER AND LUNG DISEASE HAZARD
AUTHORIZED PERSONEL ONLY**

Where the use of respirators and protective clothing is required in the regulated area the warning sign shall include:

**RESPIRATORS AND PROTECTIVE CLOTHING
ARE REQUIRED IN THIS AREA**

Class I - This is work involving the removal of thermal system insulation, or surfacing material, and typically will not be performed by Collier County employees.

Class II - Where a negative exposure assessment cannot be documented, or where during the job conditions indicate there may be exposure above the PEL, or where the asbestos containing material cannot be removed in a substantially intact state, a negative pressure enclosure must be used. These barriers are necessary to prevent the migration of airborne asbestos from the regulated area. The effectiveness of the barriers should be verified by perimeter area monitoring or visual surveillance. Class II work also may be performed using a method allowed for Class I work, and glove bags and glove boxes are allowed if they fully enclose the Class II material to be removed. Impermeable drop cloths must be placed on surfaces beneath all removal activity. For Class II work the competent person must be specially trained in a course that meets the criteria of EPA's Model Accreditation Plan (40 CFR 763) for project supervisor, or its equivalent.

Specialized Class II Work

Removing Vinyl and Resilient Flooring Materials - This work requires specialized training provided, or approved, by the University of Florida Asbestos Coordinator. Flooring or its backing is not to be sanded, ground abraded or intentionally broken or chipped. Vacuums equipped with High Efficiency Particulate Air (HEPA) filter, disposable dust bag, and metal floor tool (no brush) shall be used to clean floors. Resilient sheeting shall be removed by cutting with wetting of the snip point and wetting during removal. Rip-up of resilient sheet floor material is prohibited. All scraping of residual adhesive and/or backing shall be performed using wet methods. Dry sweeping is prohibited. Mechanical chipping is prohibited unless performed in a negative pressure enclosure. Tiles must be removed substantially intact.

Roofing Material - This work requires specialized training approved by the Risk Management Department. When removing roofing material that contains asbestos, remove the roofing material in an intact state to the extent feasible. Cutting machines shall be continuously misted during use, unless the competent person determines that misting substantially decreases worker safety. All loose dust left by the sawing operation must be HEPA vacuumed immediately. Cutting of cement asbestos (Transite®) is prohibited without permission from the Risk Management Department. Unwrapped or unbagged roofing material must be immediately lowered to the ground by way of covered, dust-tight chute, crane or hoist, or placed in an impermeable waste bag or wrapped in plastic sheeting and lowered to ground by the end of the work shift. Upon being lowered, unwrapped material shall be transferred to a closed receptacle in such manner to preclude the dispersion of dust. Roof level heating and ventilation air intake sources shall be isolated or the ventilation system shall be shut down.

Cement piping – Removal of cement piping for maintenance activities is a common practice in Collier County Public Utilities Division. If the work is being conducted by Collier County Employees then the department specific plan and all required JSA's for such work shall be followed at all times. In the event the work is being conducted by a contractor the contractor is subject to all applicable State, local, and Federal Regulations.

Class III

All class III asbestos work that can include a process that has the potential for disturbing a process must be evaluated by Risk Management prior to work being completed. If it is determined that the work will cause a disturbance then Class II procedures will be followed.

Section IX – Contractor Requirements

Work is to be performed in accordance with the 29 CFR 1926.1101 (OSHA Asbestos Construction Standard), 40 CFR 61 Subpart M (EPA NESHAP Regulations), and any other applicable Federal, State, and County regulations.

All contractors performing asbestos work must be in compliance with all state licensing requirements for the type of work they are performing. Prior to conducting any work on asbestos containing materials contractors must submit proof of qualified personnel, all contract employees must be trained in accordance with OSHA and EPA requirements.

All contractors that will be performing work on any asbestos containing material must submit an Asbestos Abatement Work Plan to the county department work is being performed for and the Risk Management Department for approval. The work plan must include: licensing, employee training, handling, storage, and disposal of asbestos containing material as referenced within the applicable OSHA and EPA/FDEP Regulations. This plan must be approved by the Risk Management Department prior to any work being completed.

For contractors that provide emergency repair services an Asbestos Abatement Plan must be submitted as outlined above on an annual basis.

All contractors must be in compliance with Section X Disposal Requirements.

Section X – Disposal Requirements

All asbestos containing materials that reside on Collier County Property and Utilities are under the ownership of the county. Federal disposal regulations set forth cradle-to-grave responsibility with asbestos as a hazardous material. Therefore the responsibility of proper disposal is ultimately that of Collier County. All shipments and disposal of Asbestos

must be accompanied by and Non-Hazardous Waste Manifest (Appendix B). All disposal of asbestos must be in accordance with State, Local, Federal regulations and Collier County requirements.

Documentation – Documentation of disposal is done by each department or contractor utilizing the Non-Hazardous Waste Manifest. The department that was responsible for the oversight of the asbestos project is responsible for maintaining copies of the manifest. All return documentation of disposal must be received back by the required department within 30 days. If documentation has not been received in 30 days Risk Management must be notified. All documentation for asbestos disposal must be retained by the department conducting disposal. These forms shall be kept on site indefinitely.

Packaging – All Asbestos being disposed must be wetted, concealed tightly, labeled with the amount of asbestos in either cubic ft or linear ft, and the specific location it came from. All packages must be labeled as shown below:

**DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND DISEASE HAZARD**

Shipping – Regulated Asbestos shall never be shipped by Collier County Employees in any amount greater than 1000 lbs. Any shipment that exceeds this requirement is subject to Department of Transportation Requirements as a class 9 hazardous material.

Disposal – All asbestos must be delivered and handled by qualified and trained employees. Prior to disposal of asbestos a pre planned landfill disposal site must be determined; the site must have legal authority to accept asbestos containing materials. As soon as disposal is anticipated the department asbestos coordinator should contact the disposal site and schedule a drop of date. Disposal of asbestos is usually conducted at a pre determined time, date, and location, this determination is given by the disposal site. Collier County employees must follow the direction of the disposal site and only deliver materials to a location determined by the site. Prior to leaving Collier County employees must have the landfill operator or representative sign the Non Hazardous Waste Manifest. A copy of the manifest must be returned and filed appropriately.

Contractors – No contractor is to engage in the handling, storage, or disposal of asbestos without prior approval by the Department managing the contract and Risk Management Department.

Section XI – Prohibited Practices

All Collier County Employees are prohibited from performing any work on or around asbestos without proper training, medical clearance, and PPE as required by this document. All department specific written plans, JSA's, and standard operating procedures must be approved by Risk Management prior to being put into place.

Applicable Documents / References

CMA 5902 health and Safety Policy
Water Department Main Break JSA
Respiratory Protection Written Plan
Protective Eyewear Countywide JSA # 1
Site/Project Specific Asbestos Management Plan

Appendix B: Non-Hazardous Waste Manifest

Please print or type
Form designed for use on 8 1/2 x 11 (landscape)

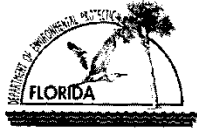
NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Doc. No.	2. Page 1 of
3. Generator's Name and Mailing Address				
4. Generator's Phone ()				
5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone		
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone		
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone		
11. Waste Shipping Name and Description		12. Containers	13. Total	14. Unit
		No.	Quantity	W/Vol
a.		.	.	.
b.		.	.	.
c.		.	.	.
d.		.	.	.
D. Additional Descriptions for Materials Listed Above		E. Handling Codes for Wastes Listed Above		
15. Special Handling Instructions and Additional Information				
16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.				
Printed/Typed Name		Signature		Month Day Year - - -
17. Transporter 1 Acknowledgement of Receipt of Materials				
Printed/Typed Name		Signature		Month Day Year - - -
18. Transporter 2 Acknowledgement of Receipt of Materials				
Printed/Typed Name		Signature		Month Day Year - - -
19. Discrepancy Indication Space				
20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 19.				
Printed/Typed Name		Signature		Month Day Year - - -

Printed by J. J. KELLER & ASSOCIATES, INC.
Neenah, WI 54957-0388

ORIGINAL – RETURN TO GENERATOR

12-BLS-C6 Rev. 12/98

Appendix C: FDEP Notification Form



Florida Department of Environmental Protection Division of Air Resource Management

DEP Form 62-257-900(1)
 Effective 10-12-08
 Page 1 of 2

NOTICE OF DEMOLITION OR ASBESTOS RENOVATION

TYPE OF NOTICE (CHECK ONE ONLY): ORIGINAL REVISED CANCELLATION COURTESY
 TYPE OF PROJECT (CHECK ONE ONLY): DEMOLITION RENOVATION
 IF DEMOLITION, IS IT AN ORDERED DEMOLITION? YES NO
 IF RENOVATION:
 IS IT AN EMERGENCY RENOVATION OPERATION? YES NO
 IS IT A PLANNED RENOVATION OPERATION? YES NO

I. Facility Name _____
 Address _____
 City _____ State _____ Zip _____ County _____
 Site _____ Consultant Inspecting Site _____
 Building Size _____ (Square Feet) # of Floors _____ Building Age in Years _____
 Prior Use: School/College/University Residence Small Business Other _____
 Present Use: School/College/University Residence Small Business Other _____

II. Facility Owner _____ Phone (_____) _____
 Address _____
 City _____ State _____ Zip _____

III. Contractor's Name _____ Phone (_____) _____
 Address _____
 City _____ State _____ Zip _____
 Is the contractor exempt from licensure under section 469.002(4), F.S.? YES NO

IV. Scheduled Dates: (Notice must be postmarked 10 working days before the project start date)
 Asbestos Removal (mm/dd/yy) Start: _____ Finish: _____ Demo/Renovation (mm/dd/yy) Start: _____ Finish: _____

V. Description of planned demolition or renovation work to be performed and methods to be employed, including demolition or renovation techniques to be used and description of affected facility components. _____

Procedures to be Used (Check All That Apply):

<input type="checkbox"/> Strip and Removal	<input type="checkbox"/> Glove Bag	<input type="checkbox"/> Bulldozer	<input type="checkbox"/> Wrecking Ball
<input type="checkbox"/> Wet Method	<input type="checkbox"/> Dry Method	<input type="checkbox"/> Explode	<input type="checkbox"/> Burn Down
OTHER: _____			

VI. Procedures for Unexpected RACM: _____

VII. Asbestos Waste Transporter: Name _____ Phone (_____) _____
 Address _____
 City _____ State _____ Zip _____

VIII. Waste Disposal Site: Name _____ Class _____
 Address _____
 City _____ State _____ Zip _____

IX. RACM or ACM: Procedure, including analytical methods, employed to detect the presence of RACM and Category I and II nonfriable ACM. _____

Amount of RACM or ACM*
 _____ square feet surfacing material
 _____ linear feet pipe
 _____ cubic feet of RACM off facility components
 _____ square feet cementitious material
 _____ square feet resilient flooring
 _____ square feet asphalt roofing

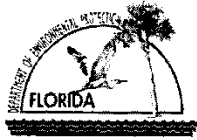
X. Fee Invoice Will Be Sent to Address in Block Below: (Print or Type)

*Identify and describe surfacing material and other materials as applicable:

I certify that the above information is correct and that an individual trained in the provisions of this regulation (40 CFR Part 61, Subpart M) will be on-site during the demolition or renovation and evidence that the required training has been accomplished by this person will be available for inspection during normal business hours.

_____ (Date)
 (Print Name of Owner/Operator) _____
 _____ (Date)
 (Signature of Owner/Operator) _____

DEP USE ONLY	Postmark/Date Received	ID#
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**Florida Department of
Environmental Protection**
Division of Air Resource Management

DEP Form 62-257-900(1)
Effective 10-12-08
Page 1 of 2

NOTICE OF DEMOLITION OR ASBESTOS RENOVATION

TYPE OF NOTICE (CHECK ONE ONLY): ORIGINAL REVISED CANCELLATION COURTESY
TYPE OF PROJECT (CHECK ONE ONLY): DEMOLITION RENOVATION
 IF DEMOLITION, IS IT AN ORDERED DEMOLITION? YES NO
 IF RENOVATION:
 IS IT AN EMERGENCY RENOVATION OPERATION? YES NO
 IS IT A PLANNED RENOVATION OPERATION? YES NO

I. Facility Name _____
 Address _____
 City _____ State _____ Zip _____ County _____
 Site _____ Consultant Inspecting Site _____
 Building Size _____ (Square Feet) # of Floors _____ Building Age in Years _____
 Prior Use: School/College/University Residence Small Business Other _____
 Present Use: School/College/University Residence Small Business Other _____

II. Facility Owner _____ Phone (_____) _____
 Address _____
 City _____ State _____ Zip _____

III. Contractor's Name _____ Phone (_____) _____
 Address _____
 City _____ State _____ Zip _____
 Is the contractor exempt from licensure under section 469.002(4), F.S.? YES NO

IV. Scheduled Dates: (Notice must be postmarked 10 working days before the project start date)
 Asbestos Removal (mm/dd/yy) Start: _____ Finish: _____ Demo/Renovation (mm/dd/yy) Start: _____ Finish: _____

V. Description of planned demolition or renovation work to be performed and methods to be employed, including demolition or renovation techniques to be used and description of affected facility components. _____

Procedures to be Used (Check All That Apply):

<input type="checkbox"/> Strip and Removal	<input type="checkbox"/> Glove Bag	<input type="checkbox"/> Bulldozer	<input type="checkbox"/> Wrecking Ball
<input type="checkbox"/> Wet Method	<input type="checkbox"/> Dry Method	<input type="checkbox"/> Explode	<input type="checkbox"/> Burn Down
OTHER: _____			

VI. Procedures for Unexpected RACM: _____

VII. Asbestos Waste Transporter: Name _____ Phone (_____) _____
 Address _____
 City _____ State _____ Zip _____

VIII. Waste Disposal Site: Name _____ Class _____
 Address _____
 City _____ State _____ Zip _____

IX. RACM or ACM: Procedure, including analytical methods, employed to detect the presence of RACM and Category I and II nonfriable ACM. _____

Amount of RACM or ACM*
 _____ square feet surfacing material
 _____ linear feet pipe
 _____ cubic feet of RACM off facility components
 _____ square feet cementitious material
 _____ square feet resilient flooring
 _____ square feet asphalt roofing

X. Fee Invoice Will Be Sent to Address in Block Below: (Print or Type)

*Identify and describe surfacing material and other materials as applicable:

I certify that the above information is correct and that an individual trained in the provisions of this regulation (40 CFR Part 61, Subpart M) will be on-site during the demolition or renovation and evidence that the required training has been accomplished by this person will be available for inspection during normal business hours.

(Print Name of Owner/Operator) _____ (Date) _____

(Signature of Owner/Operator) _____ (Date) _____

DEP USE ONLY	Postmark/Date Received	ID#
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**DEPARTMENT / SITE-SPECIFIC
ASBESTOS CONTROL PROGRAM INSERT**

Facility:	Location:
Department:	Division:

RESPONSIBILITY:

_____ is designated as the Asbestos Program Coordinator for this Department/facility. Specific Responsibilities include:

1. Ensuring this department insert remains current.
2. Maintaining a current list of employees that have been properly trained and have been determined as qualified to work with asbestos.
3. Ensuring that all asbestos containing piping is accounted for via a formal tracking mechanism.
4. Ensuring all repairs where asbestos containing material are suspected follow the established safety protocols, JSA's and/or internal procedures as defined within the Collier County Written Plan.
5. Ensuring that all contractors who may perform asbestos removal have provided verification of properly trained employees and that all contracted work follows established guidelines and appropriate disposal procedures.
6. Ensuring all waste disposal forms are completed, properly submitted and a copy maintained to ensure "cradle to grave" accuracy.

Appendix E Medical Questionnaire

Appendix D to §1910.1001 - Medical Questionnaires - Mandatory

This mandatory appendix contains the medical questionnaires that must be administered to all employees who are exposed to asbestos above the permissible exposure limit, and who will therefore be included in their employer's medical surveillance program. Part 1 of the appendix contains the Initial Medical Questionnaire, which must be obtained for all new hires who will be covered by the medical surveillance requirements. Part 2 includes the abbreviated Periodical Medical Questionnaire, which must be administered to all employees who are provided periodic medical examinations under the medical surveillance provisions of the standard.

Part 1

INITIAL MEDICAL QUESTIONNAIRE:

1. NAME: _____

2. SOCIAL SECURITY NUMBER: _____

3. CLOCK NUMBER: _____

4. PRESENT OCCUPATION: _____

5. PLANT: _____

6. ADDRESS: _____

7. CITY: _____ ST: _____ ZIP CODE: _____

8. TELEPHONE NUMBER: (____) _____ - _____ EXT. _____

9. INTERVIEWER: _____

10. DATE: ____ / ____ / ____

11. Date of birth: ____ / ____ / ____
Month Day Year

12. Place of birth: _____

13. Sex: 1. Male 2. Female

14. What is your marital status? 1. Single 2. Married 3. Widowed 4. Separated/Divorced

15. Race: 1. White 2. Black 3. Asian 4. Hispanic 5. Indian 6. Other _____

16. What is the highest grade completed in school? _____ (For example 12 years is completion of high school)

17. OCCUPATIONAL HISTORY

A. Have you ever worked full time (30 hours per week or more) for 6 months or more?: 1. Yes 2. No IF YES TO 17A:
 B. Have you ever worked for a year or more in any dusty job? 1. Yes 2. No 3. Does Not Apply

Specify job/industry: _____ Total Years Worked: _____

Was dust exposure: 1. Mild 2. Moderate 3. Severe

C. Have you ever been exposed to gas or chemical fumes in your work? 1. Yes 2. No
 Specify job/industry: _____ Total Years Worked: _____

Was exposure: 1. Mild 2. Moderate 3. Severe

D. What has been your usual occupation or job - the one you have worked at the longest?
 1. Job occupation: _____
 2. Number of years employed in this occupation: _____
 3. Position/job title: _____
 4. Business, field or industry: _____

(Record on lines the years in which you have worked in any of these industries, e.g. 1960-1969)

Have you ever worked:

E. In a mine?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	_____ - _____
F. In a quarry?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	_____ - _____
G. In a foundry?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	_____ - _____
H. In a pottery?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	_____ - _____
I. In a cotton, flax, or hemp mill?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	_____ - _____
J. With asbestos?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	_____ - _____

18. PAST MEDICAL HISTORY

A. Do you consider yourself to be in good health? Yes No If "No", state reason: _____

B. Have you any defect of vision? Yes No If "Yes", state nature of defect: _____

C. Have you any hearing defect? Yes No If "Yes", state nature of defect: _____

D. Are you suffering from or have you ever suffered from:

a. Epilepsy (or fits, seizures, convulsions)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
b. Rheumatic fever?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
c. Kidney disease?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
d. Bladder disease?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
e. Diabetes?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
f. Jaundice?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

19. CHEST COLDS AND CHEST ILLNESSES:

19A. If you get a cold, does it usually go to your chest? (Usually means more than 1/2 the time): 1. Yes 2. No 3. Don't get colds

20A. During the past 3 years, have you had any chest illnesses that have kept you off work, indoors at home, or in bed? 1. Yes 2. No IF YES TO 20A:
 B. Did you produce phlegm with any of these chest illnesses? 1. Yes 2. No 3. Does Not Apply
 C. In the last 3 years, how many such illnesses with (increased) phlegm did you have which lasted a week or more? _____ Number of illnesses No such illnesses

21. Did you have any lung trouble before the age of 16? 1. Yes 2. No



**Appendix F:
Phase I - Project Initialization Checklist**

0	Project Name:	Form Completed By:	Proj. #:
1	Who Will conduct the Asbestos Operations?	<input type="checkbox"/> Water Department <input type="checkbox"/> Contractor <input type="checkbox"/> Other	
2	Has a project/site-specific Asbestos Abatement Plan been submitted to the Project Mgr?	<input type="checkbox"/> YES <input type="checkbox"/> NO	
3	Has the Asbestos Abatement Plan Been Approved by the Water, Risk Mgt, Pollution Control and Solid Waste departments?	<input type="checkbox"/> YES <input type="checkbox"/> NO	
4	Where applicable, has the affected department provided all applicable JSA's associated with these work tasks for review?	<input type="checkbox"/> YES <input type="checkbox"/> NO	
5	Has documentation of licensure been provided by the contractor, where necessary?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
6	Has documentation of employee training been provided to the Project Mgr?	<input type="checkbox"/> YES <input type="checkbox"/> NO	
7	Does this project require a 3 rd Party Asbestos Consultant? If so, have they been hired and provided with the abatement plan for review?	<input type="checkbox"/> YES <input type="checkbox"/> NO	
8	Does this project require EPA/DEP Notification?	<input type="checkbox"/> YES <input type="checkbox"/> NO	
9	Where EPA/DEP notification is required, has DEP form 62-257-900(1) been completed by the contractor or Project Mgr and submitted to EPA/DEP? (This form is shown as Appendix C in the Risk Management Countywide Plan)	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
10	Where EPA DEP notification has been determined, has approval been received from EPA/DEP (Do not commence project without approval, where necessary)?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
11	Has the Project Mgr. Obtained the "Waste Profile" form from WMI? (This form will need to be submitted to WMI for approval prior to disposal of material – There is a 24-48 hour waiting period on approval of this form) Note: Multiple shipments will require multiple form requests and subsequent approvals by WMI	<input type="checkbox"/> YES <input type="checkbox"/> NO	
12	Where necessary, The PUD Public Information Coordinator has been notified, educated on the project in question and is available to address media concerns?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	
13	Has a Project Pre-Construction Meeting been held to discuss the abatement plan and all roles and responsibilities everyone will be held to?	<input type="checkbox"/> YES <input type="checkbox"/> NO	
14	An account has been established at the landfill for the specific project. Acct# _____ (Utility Billing)	<input type="checkbox"/> YES <input type="checkbox"/> NO	
15	Has the Asbestos Abatement Consultant submitted an air monitoring plan that describes that establishes parameters for personal and ambient air monitoring?	<input type="checkbox"/> YES <input type="checkbox"/> NO	
16	Estimated linear ft and weight of asbestos to be removed _____ Linear Ft		

The signatures below represent the verification of all items above and the subsequent approval of the initiation sequence of this project.

Project Manager - Print Name	Project Manager Signature
Risk Management – Print Name/Title	Risk Management - Signature
Solid & Hazardous Waste – Print Name/Title	Solid & Hazardous Waste - Signature
Water Distribution Manager – Print Name	Water Distribution Manager - Signature
Water Department Director – Print Name	Water Department Director - Signature
Contractor – Print Name	Contractor - Signature

Once all signatures have been obtained, the "Notice to Proceed" may be delivered. This completed form shall be retained by the Water Department, the Project Manager and Risk Management for document control purposes.



**Appendix G:
Phase II - Asbestos Construction/Removal Checklist**
[This checklist to be completed on-site during any Asbestos Removal Project]

0	Project Name:	Form Completed By:	Proj #:
1	The department and/or contractor performing the work has mobilized all necessary equipment to properly remove the Asbestos containing material.		<input type="checkbox"/> YES <input type="checkbox"/> NO
2	A copy of the Asbestos Abatement Plan is on site at all times.		<input type="checkbox"/> YES <input type="checkbox"/> NO
3	Where necessary, A copy of any applicable JSA's are on-site at all times.		<input type="checkbox"/> YES <input type="checkbox"/> NO
4	Where necessary, A copy of the approved DEP Form 62-257-900(1) is on site at all times.		<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
5	Where necessary, A copy of the contractor's Asbestos License is on site at all times.		<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
6	The department and/or contractor performing the work has the approved cutting/snapping apparatus on site and ready for use.*		<input type="checkbox"/> YES <input type="checkbox"/> NO
7	The department and/or contractor performing the work has all required equipment to clean up asbestos debris in affected soil or media on-site?*		<input type="checkbox"/> YES <input type="checkbox"/> NO
8	The department and/or contractor performing the work has all required PPE on site and available for all employees that will work within the excavation/removal area.*		<input type="checkbox"/> YES <input type="checkbox"/> NO
9	The department and/or contractor performing the work has all required signage on-site and available and the designated perimeter is established and maintained in place at all times.*		<input type="checkbox"/> YES <input type="checkbox"/> NO
10	The department and/or contractor performing the work has all required "wrapping" material on-site and available at all times.*		<input type="checkbox"/> YES <input type="checkbox"/> NO
11	The department and/or contractor performing the work has adequate "wetting" apparatus on-site and available to ensure material does not become airborne.*		<input type="checkbox"/> YES <input type="checkbox"/> NO
12	The material has been properly wrapped? *		<input type="checkbox"/> YES <input type="checkbox"/> NO
13	The material has been properly labeled? *		<input type="checkbox"/> YES <input type="checkbox"/> NO
14	Properly wrapped and labeled material has been carefully loaded into an approved transportation container. *		<input type="checkbox"/> YES <input type="checkbox"/> NO
15	Transportation container is properly labeled while being stored on site.*		<input type="checkbox"/> YES <input type="checkbox"/> NO
16	The affected department and/or contractor has obtained approval for disposal from WMI using the "Waste Profile" form as required and said form is on site and ready to be sent with the Non-Hazardous Waste manifest. [Timeframe: 48 Hours Min/10 Days Max] Note: Multiple shipments will require multiple requests and subsequent approval by WMI		<input type="checkbox"/> YES <input type="checkbox"/> NO
17	The affected department has scheduled the exact date/time for shipment of material based on WMI approval via the Waste Profile form. Note: Multiple shipments will require multiple requests and subsequent approval by WMI		<input type="checkbox"/> YES <input type="checkbox"/> NO
18	Has the transportation container been covered (tarp) prior to leaving the site?*		<input type="checkbox"/> YES <input type="checkbox"/> NO
19	The shipment has left the construction site and being transported for disposal.		<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
20	A safety meeting, i.e. short tailgate session is held at the beginning of each work day.		<input type="checkbox"/> YES <input type="checkbox"/> NO
21	Verify and list the amount of pipe removed (in linear feet and weight); _____ Linear Ft.		

***Items require photographs prior to completion of documentation**

The signatures below represent the verification of all items above and the subsequent approvals during the **Construction/Removal Phase** of this project.

Project Manager - Print Name	Project Manager - Signature
Water Dept. Representative- Print Name/Title	Water Dept. Representative - Signature
Field Inspector - Print Name/Title	Field Inspector - Signature
Add. Representative - Print Name/Title	Add. Representative - Signature

This completed form shall be retained by the Water Department, the Project Manager and Risk Management for document control purposes.



**Appendix H:
Asbestos Disposal Checklist**

[To be completed by a trained (authorized) Solid Waste Employee]

1	Who Delivered the Asbestos Shipment? <input type="checkbox"/> Water Department <input type="checkbox"/> Contractor <input type="checkbox"/> Other	
2	Is the correct Waste Profile, completed correctly and approved by Waste Management, delivered to the scalehouse office prior to the date of disposal? (A separate profile is required for friable and non-friable asbestos waste)	<input type="checkbox"/> YES <input type="checkbox"/> NO
3	Are the Non-Hazardous Waste Manifest completed correctly and signed by the hauler and scalehouse attendant?	<input type="checkbox"/> YES <input type="checkbox"/> NO
4	Has an account been established at the scalehouse for this specific project?	<input type="checkbox"/> YES <input type="checkbox"/> NO
5	Did the shipment arrive covered (tarp) prior to disposal?	<input type="checkbox"/> YES <input type="checkbox"/> NO
6	Has the disposal location been properly prepared for acceptance of the material by WMI staff following WMI's established burial parameters? (scale attendant will notify WMI to prepare the disposal site)	<input type="checkbox"/> YES <input type="checkbox"/> NO
7	Is a Waste management Inc. Authorized operator available to meet the hauler at the disposal location?	<input type="checkbox"/> YES <input type="checkbox"/> NO
8	Has a Solid Waste Mgt. employee escorted the hauler to the disposal location and witnessed the placement of material into the WMI established disposal location?	<input type="checkbox"/> YES <input type="checkbox"/> NO
9	Has the shipment been disposed of properly (as defined by WMI parameters) and the entire disposal process verified by an authorized Solid Waste Management representative?	<input type="checkbox"/> YES <input type="checkbox"/> NO
10	Has the Solid Waste Department received copies of the final and completed Non-Hazardous Waste Manifest, GPS coordinates and a copy of the load ticket receipt from WMI?	<input type="checkbox"/> YES <input type="checkbox"/> NO
11	Has Solid Waste Submitted the completed the proper documentation to the Project Manager for documentation control purposes. (manifests, signed load tickets, GPS log and a final report from the scalehouse database)	<input type="checkbox"/> YES <input type="checkbox"/> NO

The signatures below represent the verification of all items above and the subsequent approval of the Completion of the *Disposal Phase* of this project.

Project Manager - Print Name	Project Manager Signature
Solid Waste – Print name/Title	Solid Waste - Signature
Risk Management – Print Name/Title	Risk Management - Signature
Water Department Director – Print Name	Water Department Director - Signature

This completed form shall be retained by the Project Manager and Risk Management for document control purposes.



**Appendix I:
Document Control Checklist**

1	A copy of the Asbestos Abatement Plan has been filed with the Project Manager and Risk Management?	<input type="checkbox"/> YES <input type="checkbox"/> NO
2	A copy of the completed contract has been filed with the Project Manager and Risk Management?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
3	A copy of the completed DEP form 62-257-900(1) has been filed with the Project Manager and Risk Management?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
4	A copy of the Non-Hazardous Waste Manifest, landfill ticket, GPS Coordinates, and Waste Profile have been filed with the Project Manager and Risk Management?	<input type="checkbox"/> YES <input type="checkbox"/> NO
5	An AAR and Project Critique have been completed?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
6	AAR Results and Project Improvement Strategies have been submitted to the affected departments and Risk Management for immediate implementation?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A
7	Department Asbestos Inventory Form has been updated to reflect changes?	<input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A

The signatures below represent the verification of all items above and the subsequent approval of the completion of the *Document Control* sequence of this project.

Project Manager - Print Name	Project Manager Signature
Risk Management – Print Name/Title	Risk Management - Signature
Water Department – Print Name/Title	Water Department - Signature
Water Department Director – Print Name	Water Department Director - Signature

This completed form shall be retained by the project manager and Risk Management for document control purposes.

Friable Asbestos Containing Materials Express Profiles



Requested Disposal Facility _____ Profile Number _____
 Renewal for Profile Number _____ Waste Approval Expiration Date _____

A. Waste Generator Facility Information (must reflect location of waste generation/origin)

1. Generator Name: _____
 2. Site Address: _____ 7. Email Address: _____
 3. City/ZIP: _____ 8. Phone: _____ 9. FAX: _____
 4. State: _____ 10. NAICS Code: _____
 5. County: _____ 11. Generator USEPA ID #: _____
 6. Contact Name/Title: _____ 12. State ID# (if applicable): _____

B. Customer Information same as above

P. O. Number: _____

1. Customer Name: _____ 6. Phone: _____ FAX: _____
 2. Billing Address: _____ 7. Transporter Name: _____
 3. City, State and ZIP: _____ 8. Transporter ID # (if appl.): _____
 4. Contact Name: _____ 9. Transporter Address: _____
 5. Contact Email: _____ 10. City, State and ZIP: _____

C. Waste Stream Information

1. DESCRIPTION

a. Common Waste Name: Friable Asbestos containing material (uncontaminated)
 State Waste Code(s): _____

b. Describe Process Generating Waste or Source of Contamination:

Removal of regulated, friable asbestos containing materials from demolition/dismantling or remediation activities. Does not include clean-up wastes, such as soil, that are contaminated with asbestos.

- c. Typical Color(s): Any and all
 d. Strong Odor? Yes No Describe: _____
 e. Physical State at 70°F: Solid Liquid Powder Semi-Solid or Sludge Other: _____
 f. Layers? Single layer Multi-layer NA
 g. Water Reactive? Yes No If Yes, Describe: _____
 h. Free Liquid Range (%): _____ to _____ NA(solid)
 i. pH Range: ≤2 2.1-12.4 ≥12.5 NA(solid) Actual: _____
 j. Liquid Flash Point: < 140°F ≥ 140°F NA(solid) Actual: _____
 k. Flammable Solid: Yes No
 l. Physical Constituents: List all constituents of waste stream - (e.g. Soil 0-80%, Wood 0-20%): (See Attached)

Constituents (Total Composition Must be > 100%)	Lower Range	Unit of Measure	Upper Range	Unit of Measure
1. Demolition debris, asbestos	100	%	100	%
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____
6. _____	_____	_____	_____	_____

2. ESTIMATED QUANTITY OF WASTE AND SHIPPING INFORMATION

- a. Event Base/Ongoing (Check One)
 b. Estimated Annual Quantity: _____ Tons Cubic Yards Drums Gallons Other (specify): _____
 c. Shipping Frequency: _____ Units per Month Quarter Year One Time Other
 d. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (If yes, answer e.) Yes No
 e. USDOT Shipping Description (if applicable): RQ Asbestos, Class 9, NA2212, PGIII

3. SAFETY REQUIREMENTS (Handling, PPE, etc.): Respirator - air purifying with HEPA cartridge as required by landfill policy.

Non-Friable Asbestos Containing Materials Express Profile



Requested Disposal Facility _____ Profile Number _____
 Renewal for Profile Number _____ Waste Approval Expiration Date _____

A. Waste Generator Facility Information (must reflect location of waste generation/origin)

1. Generator Name: _____
 2. Site Address: _____ 7. Email Address: _____
 3. City/ZIP: _____ 8. Phone: _____ 9. FAX: _____
 4. State: _____ 10. NAICS Code: _____
 5. County: _____ 11. Generator USEPA ID #: _____
 6. Contact Name/Title: _____ 12. State ID# (if applicable): _____

B. Customer Information same as above

P. O. Number: _____

1. Customer Name: _____ 6. Phone: _____ FAX: _____
 2. Billing Address: _____ 7. Transporter Name: _____
 3. City, State and ZIP: _____ 8. Transporter ID # (if appl.): _____
 4. Contact Name: _____ 9. Transporter Address: _____
 5. Contact Email: _____ 10. City, State and ZIP: _____

C. Waste Stream Information

1. DESCRIPTION

a. Common Waste Name: Non-Friable Asbestos Containing Materials (Uncontaminated)
 State Waste Code(s): _____

b. Describe Process Generating Waste or Source of Contamination:

Demolition/renovation - when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure. Including gaskets, resilient floor coverings and asphalt roofing products (specify in section L). Does not include clean-up wastes, such as soils, that are contaminated with nonfriable asbestos.

c. Typical Color(s): Any and all

d. Strong Odor? Yes No Describe: _____

e. Physical State at 70°F: Solid Liquid Powder Semi-Solid or Sludge Other: _____

f. Layers? Single layer Multi-layer NA

g. Water Reactive? Yes No If Yes, Describe: _____

h. Free Liquid Range (%): _____ to _____ NA(solid)

i. pH Range: ≤2 2.1-12.4 ≥12.5 NA(solid) Actual: _____

j. Liquid Flash Point: < 140°F ≥ 140°F NA(solid) Actual: _____

k. Flammable Solid: Yes No

l. Physical Constituents: List all constituents of waste stream - (e.g. Soil 0-80%, Wood 0-20%): (See Attached)

Constituents (Total Composition Must be > 100%)	Lower Range	Unit of Measure	Upper Range	Unit of Measure
1. Non-friable asbestos-containing materials	100	%	100	%
2. _____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____
5. _____	_____	_____	_____	_____
6. _____	_____	_____	_____	_____

2. ESTIMATED QUANTITY OF WASTE AND SHIPPING INFORMATION

a. Event Base/Ongoing (Check One)

b. Estimated Annual Quantity: _____ Tons Cubic Yards Drums Gallons Other (specify): _____

c. Shipping Frequency: _____ Units per Month Quarter Year One Time Other

d. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (If yes, answer e.) Yes No

e. USDOT Shipping Description (if applicable): _____

3. SAFETY REQUIREMENTS (Handling, PPE, etc.): Normal landfill safety requirements. Manage waste so that it does not become friable.

SECTION VIII

WASTEWATER SPILL – OVERFLOW

CONTINGENCY REQUIREMENTS

GENERAL COLLIER COUNTY
WASTEWATER SPILL - OVERFLOW
CONTINGENCY PLAN
December 2023

The Contractor, due to unforeseen conditions, may encounter or cause a wastewater spill or overflow during his work. The minimum requirements listed below may not address every specific event that could occur. It is the Contractor's responsibility to review the items listed below and expand upon them if or when necessary in the creation of their contingency planning. The Contractor shall submit a Wastewater Spill / Overflow Contingency Plan to Collier County for review and approval prior to start of construction.

It is critically important to be proactive during construction to reduce the potential for wastewater spills and overflows. Listed below are several proactive actions that should be taken at a minimum:

- Maintain list of emergency wastewater haulers to call out to the site should an emergency arise.
- Maintain pumps on site that can be utilized for relieving wastewater backups and surcharges.
- Maintain heavy plastic sheets on site to be utilized for lining containment areas.
- Maintain an adequate supply of lime on site for treating spill areas.
- Meet with County Wastewater Staff whenever necessary to isolate or turn off pumping facilities in order to develop coordinated Contingency Plan, including pumper trucks, etc.
- Meet with County Wastewater Staff and the project manager whenever necessary to temporarily divert or isolate gravity sewer system in order to develop coordinated Contingency Plan, including pumper trucks, etc.

Actions to be taken in case of a wastewater spill or overflow are listed below. Generally, they are listed in the order to be taken, however dependent upon site conditions they may need to be modified. Most of the activities should occur concurrently.

- Immediately contain spill or overflow by berming a containment area and lining area with plastic.
- Take immediate action to stop or reduce the overflow. This could include, but not be limited to: pumping out of surcharged gravity system; coordinating with County to turn

on or off pump station(s) as needed; or in case of a force main break, turning off pump station(s) and isolating main with valves.

- Take action to prevent the flow of the spill to any open waters (lakes, canals, etc.). Do not let other sources of water co-mingle with spilled wastewater.
- Contact County Project Manager (or alternate) and CEI representative onsite to coordinate County response from the Collier County Wastewater Collections staff, County Risk Management, and County Pollution Control. As necessary by severity, FDEP and other agencies may need to be contacted and become involved.
- Coordinate the cleanup of the wastewater spill/overflow. This can include pumping back into the wastewater system directly or by use of vacor truck or other methods. Upon removal of all liquid (and solids as possible), treat area with lime to neutralize and disinfect.
- In coordination with County, prepare estimate of spilled wastewater volume in gallons.
- In conjunction with County and as appropriate, make immediate notification to FDEP and other agencies. This notification will vary based upon volume of spill.
- In conjunction with County Staff, prepare written notification to FDEP and other agencies.
- Participate in After Action Meeting to review: cause of spill/overflow; response and action taken; remedial actions; lessons learned and any additional close out actions.

An emergency 24-hour contact list for the Contractor, County, FDEP and Consultant should be attached. A copy of this Plan, and as may be modified, should be maintained at Project site.

PALM RIVER PUBLIC UTILITIES RENEWAL
AREA 4
PRE-CONSTRUCTION ASSESSMENT FORM
Driveway / Replacement Plan / Existing Sod Survey

Homeowner's Address: _____

Existing Condition Photograph(s) _____ Date of Photograph(s): _____

"Photo"	"Photo"
"Photo"	

Driveway Type: _____ Width at Pavement: _____ Width at R/W _____

Culvert: ____ Yes ____ No Type: _____ Diameter: _____

Sod type: _____ Existing Percentage of Sod Type: _____

Special Notes: _____

Submitted By: _____ Date: _____

SECTION X

COLLIER COUNTY WATER DISTRIBUTION BACKFLOW PREVENTION DEVICE REPLACEMENT PROCEDURE

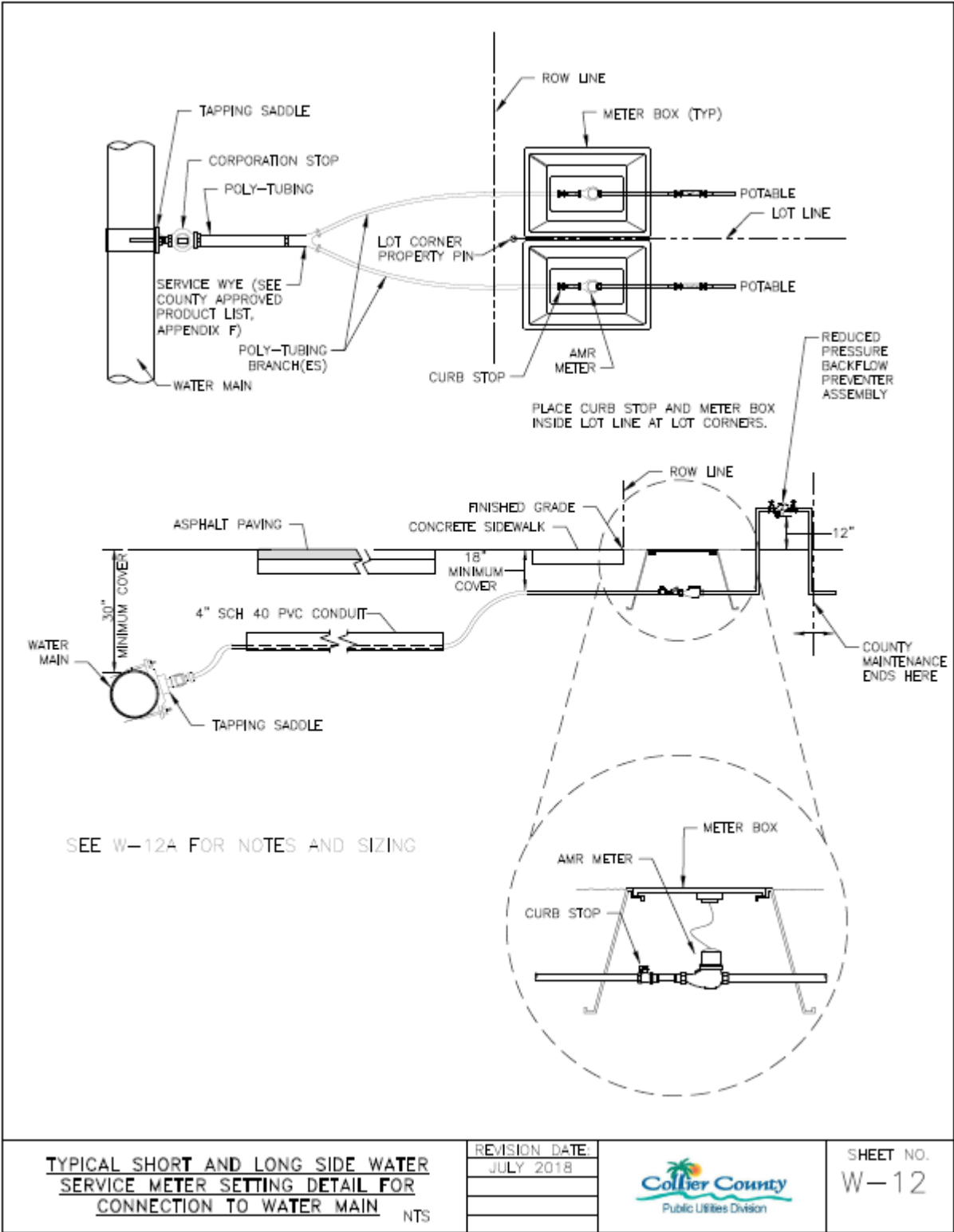
Upon completion of the new water main construction and its clearance, the new water main connection will be made at the individual services. This shall include new water meter boxes, connection to existing meter and installation of a new County supplied backflow prevention device.

1. The County will give a worksheet to the Contractor to fill out each address. The worksheet has the following information: address, names of personnel completing task, BFP #, meter #, parts used, and signature of competent person responsible for completion of task.
2. The Contractor will be responsible for coordinating with each property owner / resident for the connection to the new main and installation of the backflow prevention device. This work should ideally be completed on a street by street basis.
3. Contractor will be responsible for excavation at each site. It is required that the contractor takes pictures of each site prior to and after the installation. These photos should be attached to the worksheet. The Contractor will not be allowed to start any work until the before pictures are delivered to the Project Manager.
4. Contractor may wish to use customers shut-off on the side of the home to minimize dewatering, but in doing so takes full responsibility should the valve fail in the performance of the task.
5. Contractor is responsible for locates at the individual work-sites.
6. The backflow devices shall be picked up by the contractor at the County's Mercantile Facility. A 48 hour advanced notification prior to pick up is required. The Contractor shall provide written receipt of the devices. Upon receipt the Contractor shall be responsible for their security.
7. Installation of the assemblies will be per approved Collier County detail. Device shall be level and plumb. Connections to the customer's side plumbing will be professional and utilize as few parts as possible, but not adding any undue stress to existing piping. No leakage will be acceptable.
8. On completion of backflow preventer installation, the service shall be flushed to the resident's hose bib on incoming side, removing as much air as possible.

9. Collier County will be responsible for the testing of the device, once installed. A complete test report will accompany the work order generated for the task.
10. Contractor will be responsible for back-filling and site repair (grass, plants, concrete, asphalt, etc.) for each address. This includes any repairs to any pre-existing utilities or structures.
11. A completed work form and backflow test report must be submitted for each installation, daily.
12. C87 style adapters are required at below grade connections to PVC on customer side of backflow. For example, $\frac{3}{4}$ " C87-33-NL or $\frac{3}{4}$ x 1" C87-34-NL adapters.

METER/BACKFLOW CHANGE-OUT PROCEDURE

1. Contractor shall prepare one (1) week in advance a list (by address) of the meters and backflows to be changed out. This will allow the appropriate work orders to be issued by the County to procure the new meters.
2. Upon receipt of work order, Contractor and Representative are to provide a verbal notification to the resident prior to shut-off of water. (If no one is present, meter should be observed for any unusual water use in the empty residence. If water use is unusual, no work is to be done until a determination can be made concerning potential landscape irrigation or other use.) Work Order should be verified if any special requirements concerning the service exist (i.e. if service has been terminated or locked out).
3. In conjunction with Contractor, the new meter is installed on the new service by County. Contractor installs new backflow at location. Prior to any connection to the existing private service to the house, the County obtains a reading on the existing water meter and records it on the Work Order.
4. Service from existing main is then turned off at curb stop at existing meter location. Existing house service is then disconnected from meter. New service is then connected to the house service by Contractor with County present.
5. Meter reading is then taken by County at new meter. This is recorded on Work Order.
6. Water service is then turned on at the meter and at the same time the closest available house bibb is turned on by the Contractor. This is to allow any potential dirt or debris to be flushed out. House bibb is then shut off. Meter is observed for any unusual water usage. If unusual usage is noted, the resident if present is to be notified immediately. If the resident is not present, the water service should be shut-off at backflow device isolation valve. A notice is to be placed at the front door of the residence and the County customer service group is to be notified of this condition. If there is no usage the service conversion is completed.
7. County typically immediately completes the testing of backflow device and certifies its operation. If not done immediately, the testing is done within 24 hours.
8. At some time following conversion of service from old main to the new main, the existing meters, meter boxes are removed by Contractor and system abandonment is completed.





Model 975XL Reduced Pressure Principle Assembly

Application

Designed for installation on water lines to protect against both backsiphonage and backpressure of contaminated water into the potable water supply. Assembly shall provide protection where a potential health hazard exists. For non-potable applications only.

Standards Compliance

- ASSE® Listed 1013
- IAPMO® Listed
- UL® Classified (less shut-off valves or with OS&Y valves)
- C-UL® Classified
- CSA® Certified B64.4
- AWWA compliant C511
- Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California
- NYC MEA 425-89-M VOL 3

Materials

Main valve body	Cast Bronze ASTM B 584
Access covers	Cast Bronze ASTM B 584
Fasteners	Stainless Steel, 300 Series
Elastomers	Silicone Buna Nitrile
Polymers	Noryl™
Springs	Stainless Steel, 300 series

Features

Sizes:	3/4", 1", 1-1/4", 1-1/2", 2"	
Maximum working water pressure		175 PSI
Maximum working water temperature		180°F
Hydrostatic test pressure		350 PSI
End connections Threaded		ANSI B1.20.1

Relief Valve discharge port:

3/4" - 1"	-	0.63 sq. in.
1 1/4" - 2"	-	1.19 sq. in.



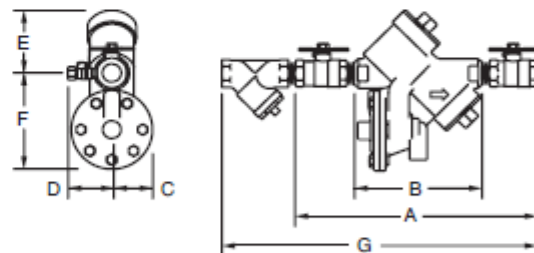
Options

(Suffixes can be combined)

- with full port QT ball valves (standard)
- L - less ball valves, male pipe thread
- U - with union ball valves (3/4" & 1")
- S - with bronze "Y" type strainer
- FDC - with fire hydrant connection; 2" only
- FT - with integral male 45° flare SAE test fitting
- TCU - with test cocks up
- SE - with street elbows (3/4" & 1")

Accessories

- Air gap (Model AG)
- Repair kits
- Thermal expansion tank (Mdl. XT)
- Soft seated check valve (Model 40XL2)
- Shock arrester (Model 1260XL)
- QT-SET Quick Test Fitting Set



Dimensions & Weights (do not include pkg.)

MODEL 975XL SIZE	DIMENSIONS (approximate)																
	A		B		C		D		E		F		G		WITH BALL VALVES		
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg	
3/4	20	12	305	7 3/4	197	2 1/8	54	3	76	3 1/2	89	5	127	16 1/8	410	12	5.5
1	25	13	330	7 3/4	197	2 1/8	54	3	76	3 1/2	89	5	127	17 3/8	441	14	6.4
1 1/4	32	17	432	10 15/16	278	2 3/4	70	3 1/2	89	5	127	6 3/4	171	22 9/16	573	28	12.7
1 1/2	40	17 3/8	441	10 15/16	278	2 3/4	70	3 1/2	89	5	127	6 3/4	171	24 1/16	611	28	12.7
2	50	18 1/2	470	10 15/16	278	2 3/4	70	3 1/2	89	5	127	6 3/4	171	26 1/2	673	34	15.4

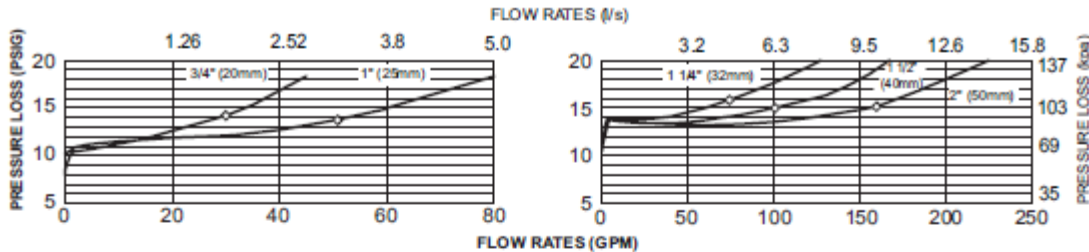
Zurn Industries, LLC | Wilkins
1747 Commerce Way, Paso Robles, CA U.S.A. 93446 Ph. 855-663-9876, Fax 805-238-5766
In Canada | Zurn Industries Limited
7900 Goreway Drive, Unit 10, Brampton, Ontario L6T 5W6, 877-892-5216
www.zurn.com

Rev. G
Date: 6/20
Document No. EF-975XL
Product No. Model 975XL

Flow Characteristics

◊ Rated Flow (established by approval agencies)

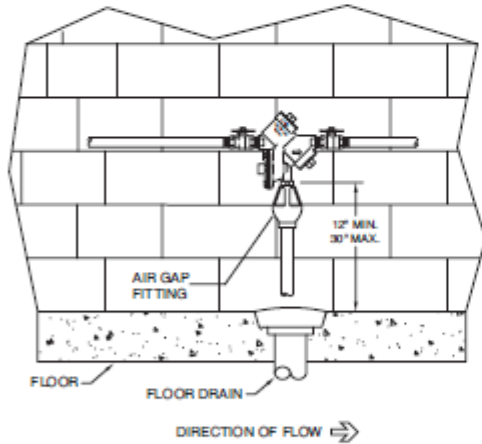
MODEL 975XL 3/4", 1", 1 1/4", 1 1/2" & 2" (STANDARD & METRIC)



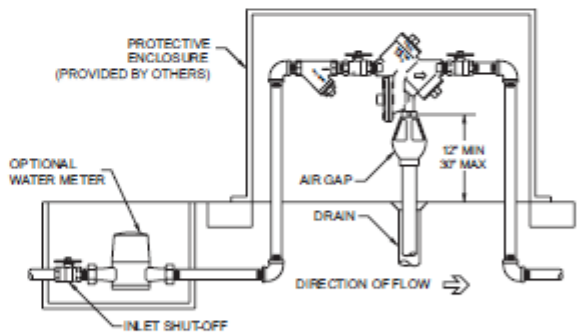
Typical Installation

Local codes shall govern installation requirements. To be installed in accordance with the manufacturers' instructions and the latest edition of the Uniform Plumbing Code. Unless otherwise specified, the assembly shall be mounted at a minimum of 12" (305mm) and a maximum of 30" (762mm) above adequate drains with sufficient side clearance for testing and maintenance. The installation shall be made so that no part of the unit can be submerged.

Capacity thru Schedule 40 Pipe				
Pipe size	5 ft/sec	7.5 ft/sec	10 ft/sec	15 ft/sec
1/8"	1	1	2	3
1/4"	2	2	3	5
3/8"	3	4	6	9
1/2"	5	7	9	14
3/4"	8	12	17	25
1"	13	20	27	40
1 1/4"	23	35	47	70
1 1/2"	32	48	63	95
2"	52	78	105	167



INDOOR INSTALLATION



OUTDOOR INSTALLATION

Specifications

The Reduced Pressure Principle Backflow Preventer shall be shall be ASSE® Listed 1013, rated to 180°F, and supplied with full port ball valves. The main body and access covers shall be bronze (ASTM B 584), the seat ring and all internal polymers shall be Noryl™ and the seat disc elastomers shall be silicone. The first and second checks shall be accessible for maintenance without removing the relief valve or the entire device from the line. If installed indoors, the installation shall be supplied with an air gap adapter. For use in non-potable applications only. The Reduced Pressure Principle Backflow Preventer shall be a ZURN WILKINS Model 975XL.

Zurn Industries, LLC | Wilkins
 1747 Commerce Way, Paso Robles, CA U.S.A. 93446 Ph. 855-663-9876, Fax 805-238-5766
 In Canada | Zurn Industries Limited
 7900 Goreway Drive, Unit 10, Brampton, Ontario L6T 5W6, 877-892-5216
www.zurn.com

Road Alert Notification Form for Lane Closures and Road Closures

ROAD ALERTS and ROAD ALERT UPDATES are prepared by the Collier County Growth Management Department to inform the community about scheduled road construction and road maintenance projects along major roadways in Collier County where lane closures are planned, or traffic flow may be affected. Road Alerts are normally **prepared weekly on Wednesday**.

Complete and return this form by e-mail to: Growth.Management@colliercountyfl.gov and Connie Deane Connie.Deane@colliercountyfl.gov and Desiree Hart Desiree.Hart@colliercountyfl.gov and Lissett DeLaRosa Lissett.DeLaRosa@colliercountyfl.gov.

Any questions, phone: 239-252-8192, 239-252-8365, 239-252-2335, or 239-252-2661.

Contact Information

- 1) Name of Company/Contractor/CEI (submitting the form): _____
- 2) Contact Name: _____
- 3) Mobile and/or Office Phone: _____
- 4) E-mail: _____
- 5) Subcontracting Company (if any): _____

Type of Work and Permitting Information

- 6) Type of work
 - a. Collier County – County Contact (name and phone): _____
 - b. Utility such as FPL, TECO – Company Name: _____
 - c. Private Company – Company Name: _____
- 7) Collier County Right-of-Way Permit # (required for private company work): _____

Lane Closure Information

- 8) Location of lane closure (select one):
 - a. On Road: _____
 between Road #1: _____ Road #2: _____
 - b. Intersection At – Road #1: _____ Road #2: _____
- 9) Dates of lane closure: (Better to overestimate than underestimate)
 Start date: _____
 End date: _____
- 10) Hours of lane closure: 9 a.m.-3 p.m. 9 a.m.-3:30 p.m. 8 p.m.-6 a.m. (overnight)
 Other (prior approval from County Contact and/or on Permit): _____
- 11) Reason for lane closure: _____
- 12) Direction of work (check all that apply):
 eastbound westbound northbound southbound
- 13) Which lane(s) closed? (check all that apply):
 through lane right turn lane left turn lane roadsides
 inside lane outside lane median sidewalks
 a.) If you are closing a turn lane can drivers still make the turn from adjacent through lane? yes no
 b.) Or from other turn lane(s)? yes no
- 14) Type of closure (may check more than one but be clear as to what is planned):
 Intermittent Rolling (moving continuously along the roadway)
 Road Closed to ALL Traffic Road Closed to Through Traffic: _____
 Reduced from: _____ lane(s) to _____ lane(s)
 Other: _____
- Notes: _____
- 15) Detour: _____
- 16) All Maintenance of Traffic (MOT) shall be in accordance with the current year standard plan.