

Permit No. 1174

THIS PERMIT IS NOT RECORDABLE

THIS PERMIT is given this _____ day of _____, 20 _____, by Old Plantation Water Control District, a water control district established according to the laws of the State of Florida, hereinafter referred to as "District", to and it is accepted by Broward County, a political subdivision of the State of Florida, its successors and assigns, through its Board of County Commissioners, hereinafter referenced as "County", collectively referred to as ("Parties").

WITNESSETH:

WHEREAS, the District is a Water Control District, deriving its authority pursuant to Chapter 298, Laws of the State of Florida. District owns in fee simple title, real property which is depicted on plan sheets 13 and 17 of Exhibit "1" (hereinafter, "Right-Of-Way");

WHEREAS, County, a political subdivision of the State of Florida, is organized and exists pursuant to the laws of the State of Florida. County wishes to construct and to maintain fiber optic cable and conduit along the north side of Broward Boulevard crossing the C-2 and C-3 canals (hereinafter, "Improvements") which is more particularly depicted on plan sheets 22 and 23 of Exhibit "1";

WHEREAS, County requests a permit allowing it and its contractors, sub-contractors, agents, servants, and employees, to have ingress and egress upon the Right-Of-Way for purposes of construction, maintenance, and repair of the Improvements and for public use;

WHEREAS, the District desires to grant a permit to County to allow for construction, maintenance, and repair of the Improvements, and for its public use;

WHEREAS, District approval of the Improvements is subject to the County's construction commitments described in Exhibit "2."

WHEREAS, the District grants this permit, without any warranties of title, express or implied, and the County accepts this permit, without any warranties of title, express or implied;

NOW, THEREFORE, in consideration of the sum of \$10.00 and other good and valuable consideration given to the District by County and the terms of this permit granted by the District, the Parties agree as follows:

1. RECITALS: The Parties warrant that the recitals contained herein are true and correct.

2. DEFINITIONS: The Parties agree that the following definitions shall prevail herein:

2.1 "Construction Documents" shall mean Exhibit "1", which is attached hereto and incorporated herein.

2.2 "Right-Of-Way" shall mean that portion of real property owned by the District, which is more particularly depicted on pages 13 and 17 of Exhibit "1".

2.3 "Improvements" shall mean those construction improvements that shall be constructed in accordance with the Construction Documents.

2.4 "District" shall mean Old Plantation Water Control District or its successors and assigns.

2.5 "County" shall mean Broward County, a political subdivision of the State of Florida, its successors and assigns.

3. AFFIRMATION OF RIGHT-OF-WAY: County affirms and acknowledges that the District's title to the Right-Of-Way, which is the subject of this permit, is superior in right, title, or dignity to the rights granted to County under this permit or any claims of County and its successors and assigns, and County hereby subordinates its interests under this permit to the District's title to the Right-Of-Way.

4. DESCRIPTION OF PERMIT: The District does hereby grant to County a non-exclusive, revocable permit to construct (or have constructed), to maintain, and to repair the Improvements for public purposes only, in the Right-Of-Way ("Permit"). This Permit grants ingress and egress upon this Right-Of-Way to construct (or have constructed), to maintain, and to repair the Improvements and to store and install equipment and material during the course of construction or repair operations.

5. This Permit does not grant to County the right to discharge storm water into the District's adjacent canal.

6. LIMITATIONS ON PERMIT: The Permit granted to County, as described in paragraph 4, is non-exclusive, revocable and subject to these additional limitations and agreements which County agrees to abide by:

- A. As to the Improvements contemplated by the Construction Documents, County will provide, at its expense, the legal description and a survey sketch of the Right-Of-Way, all other surveys, architectural and engineering plans, drawings, specifications, and data (in duplicate) to the District for its approval, and construction shall not commence until the District approves this documentation. No amendments to the stated Improvements shall be permitted unless Construction Documents evidencing these modifications have been delivered to the District and the District has approved them in writing. No "field-changes" that affect the extent or scope of this Permit are permitted unless accepted by the District in writing.
- B. This Permit is limited solely to the Right-Of-Way and does not extend to any other land owned or used by the District.
- C. This Permit is revocable at any time by the District or the County after providing six (6) months written notice to the other.
- D. Except as specifically allowed herein, no other Improvements to the Right-Of-Way shall be permitted except as shown in the Construction Documents or amendments approved in writing by the District.
- E. The District has not provided a title examination of the Right-Of-Way subject to this Permit and further does not provide an express or implied warranty of title as to the Right-Of-Way to be utilized by County. This Permit is a non-exclusive license, which may be used by County in conjunction with the rights of others. It is the obligation of County to assure itself that the construction of the Improvements and their repair and maintenance do not disrupt, damage, or impair the use or enjoyment of other improvements that might be owned, constructed or maintained by others in the Right-Of-Way. County agrees that in constructing and maintaining its Improvements it will confer with others, having rights in and to the Right-Of-Way, to the extent necessary to coordinate the construction and maintenance of its Improvements so as not to impair, damage, or harm the beneficial use and enjoyment of any other structures or improvements constructed by others in the Right- Of-Way. County has conducted a diligent examination of the site. The decision to place the

Improvements in the location depicted on sheets 13 and 17 of Exhibit "1" is solely that of County. No information, express or implied, has been given by the District to County which in any way has influenced its decision to construct and maintain the Improvements in the location depicted on sheets 13 and 17 of Exhibit "1". County has been advised that this Right-Of-Way may be subject to prior rights of use by others. To that extent, it is the obligation of County to conduct any and all surveys, title examinations, examinations of public records, and to ascertain the whereabouts of any other improvements in the Right-Of-Way before constructing the Improvements and to determine the status of the District's title to the Right-Of-Way.

- F. County shall deliver legal descriptions, surveys, architectural and engineering drawings, construction drawings, specifications, and shop drawings to the District's engineer, for all Improvements. The District's engineer is not responsible for design, construction, or the selection of materials, which in every respect is County's responsibility to ensure that the same conforms to all governmental laws and regulations concerning the construction and maintenance of the Improvements. County shall be responsible for permitting and final inspection of all construction and the compliance of its plans and specifications with existing laws and good engineering and construction practice. County shall construct and maintain the Improvements, at its own expense, in good order and repair complying with all existing law. At the conclusion of construction, County shall deliver, at its own cost and expense, to the District both "as built plans" and an "as-built survey" showing the location of the Improvements. The County shall also provide to the District a written certificate that all Improvements are built per Construction Documents and conform to all laws and if there are amendments to the Construction Documents, approved by the District's engineer, which have been made, such amendments shall be explained in the certificate. During construction, all debris shall be removed to suitable storage on a daily basis. Upon completion, all debris shall be removed within five days. County is responsible for ensuring that all sod, plants, trees, fixtures or structures, if any, in the Right-Of-Way that are damaged during construction by County, its contractors, subcontractors, employees or agents are replaced with comparable replacements. County at its expense will repair all the District's canal banks, if any, and Right-Of- Way damaged by County, its contractors, subcontractors, employees or agents and will remove all temporary Improvements which the District and County cannot agree in writing should remain as permanent Improvements.
- G. County shall comply with any and all applicable laws, regulations and administrative rules of the United States of America, the State of Florida, South Florida Water Management District, and the District, and any other governmental body having jurisdiction, which may now be in effect, or

which may be hereinafter enacted or adopted during and after construction. All vehicular and pedestrian access shall be constructed with guardrails extending to the Right-Of-Way in accordance with State of Florida Department of Transportation road standards. County shall ensure that during construction, there are adequate silt, petroleum, and discharge barriers, to avoid water pollution in the District's canals. All pollution arising from the construction shall be cleaned and remediated by County immediately, and County shall promptly notify the District and all governmental agencies of any such pollution. County shall conduct all Improvements, their maintenance and repair, at its expense, and it shall be County's obligation to secure all permitting required by law.

- H. This Permit is subject to the right of condemnation of the Right-Of-Way held by the District by any other authorized governmental agency, is subject to the continued existence of the District, and is subject to all instruments in the chain of District's title, which may include reversionary rights in favor of the Peters' family.
- I. In the event the Improvements authorized by this Permit are not approved by the District, are defectively constructed, are improperly maintained, or are negligently operated so as to endanger life or other property owners' improvements, or damage or endanger the District's improvements or canals, or should County discharge any pollutants into the District's canal or otherwise impede or degrade the operation of the District's canal, the District may, in addition to its other rights of revocation, at its option, subject to the time limit for notification, revoke this permit.
- J. During construction, County's contractors, subcontractors, laborers, and those working on these job sites shall observe and comply with all OSHA, State of Florida, and governmental safety regulations and all governmental laws and regulations dealing with environmental issues, and the District in delivering to County the right of possession in and to the permitted area during and after construction is not exercising any degree of control over the construction site, the means or methods of construction, maintenance, or repair, of the Improvements once completed. During and after construction, it shall be the duty of County to see to the maintenance and repair of the construction site and to take all precautions for the safety of workers and the public.

7. INSURANCE: County will deliver to District all certificates of liability and worker's compensation insurance that it requires of its contractors or sub-contractors for construction, maintenance or repair of the Improvements and the District shall be designated as an additional insured on all these certificates. County shall

require its contractor(s) and subcontractor(s) to have general liability, workers' compensation, and automobile liability insurance during the term of their work on this project, and to make County and District additional insureds on the general liability and automobile liability policies. Proof of contractor(s) coverage shall be provided to the District before construction commences.

8. INDEMNITY: Except for the indemnity delineated in this paragraph, neither the District, nor the County, to which sovereign immunity is applicable herein, intend anything in this Permit to serve as a waiver of sovereign immunity by any party nor shall anything included herein be construed as consent to be sued by third parties in any matter arising out of this Agreement or any other associated contract. COUNTY, to the fullest extent permitted by law, will defend, indemnify and save District, its employees, supervisors, and agents harmless against any and all liabilities, suits, obligations, fines, damages, claims bills, assessments, penalties, claims, costs, charges, expenses including, without limitation, court costs, deposition fees, investigative fees, expert fees and attorney's fees, which District, its employees, or agents may incur as a result of claims, lawsuits, administrative proceedings, governmental prosecution or legislative claim's bills arising out of COUNTY's or its contractors' use of the Right-Of-Way under this Agreement, whether at trial, upon appeal, or in a legislative-claims bill proceeding. There is excepted from this duty of indemnity damage, injury or death caused by the fault of the District through its agents, servants, employees, professional consultants and independent contractors. This obligation of indemnity, to the extent permitted by law, shall exist whether COUNTY, its agents, servants, employees, or independent contractors caused the acts complained of. Additionally, COUNTY shall permit no liens related to the Improvements or use of the Right-Of-Way to be filed against the District's Right-Of-Way in which the Improvements are located, shall require its contractors to obtain and record a payment and performance bond pursuant to section 255.05 Fla. Stat. and indemnify and hold the District harmless from any all claims against it for failure to post such bond.

9. CONDITION OF PERMITTED PREMISES: County accepts the lands that

are the subject of this Permit in an "as-is"- "where-is" condition, and acknowledges that no oral or written representations, statements, warranties, or affirmations concerning these lands or their suitability have been given by the District to County and that County has made its own independent analysis of the suitability of accepting this Permit and utilizing the lands that are the subject matter of this Permit.

10. LAWS OF THE STATE OF FLORIDA AND VENUE: This Permit shall be governed in accordance with the laws of the State of Florida, and venue shall be in Broward County, Florida.

11. NOTICES: Notices shall be written and shall be given to the Parties, by delivery or US Mail, as their addresses appear below:

Old Plantation Water Control District
P.O. Box 15405
Plantation, Florida 33318
(954) 472-5596 (telephone number)
(954) 472-5950 (fax number)

Broward County
Director of Highway Construction and Engineering Division
1 N. University Drive, Box B300
Plantation, FL 33324-2038
(954) 577-4579 (telephone number)
(954) 357-5715 (fax number)

12. SURRENDER OF PREMISES: In the event of revocation of this Permit, the Right-Of-Way shall be peaceably surrendered to the District, and County, shall at its expense, remove all Improvements and restore the District's Right-Of-Way to its condition existing before the Permit.

13. NONRECORDABILITY: County cannot record this Permit in the Public Records of Broward County, Florida. In the event that County records this Permit in the Public Records of Broward County, Florida, then County shall pay all costs

and fees incurred in removing that from the Public Records of Broward County, Florida, and shall agree to execute any and all documents necessary to remove the same. If anybody, not a party to this Permit, records this Permit in the Public Records, the parties agree to execute the documents necessary to remove this from the Public Records.

14. ATTORNEYS FEES AND VENUE: In the event it becomes necessary to enforce this Permit in a legal proceeding, then venue shall be exclusively in Broward County, Florida and the prevailing party shall be reimbursed for reasonable attorneys' fees and awardable court costs at a trial or appellate level.

15. MERGER OF AGREEMENTS: This Permit contains the full and complete agreement of the Parties and any prior arrangements, written or oral, shall be extinguished and merged into this Permit. This Permit may be only modified by a document executed by both of the Parties thereto. In the event of a conflict between this Permit and other Permits issued prior to September 21, 1990, the terms of this Permit shall prevail.

16. SUCCESSORS AND ASSIGNS: This Permit shall be binding upon the Parties' successors and assigns. No assignment of this Permit is permitted unless it is to another governmental body that agrees in writing to be bound by this Permit.

Date Permit Issued: _____ day of _____, 20_____.

DISTRICT

WITNESSES:

OLD PLANTATION WATER
CONTROL DISTRICT

Janet Wilson
Signature

By [Signature]
Superintendent

Janet Wilson
Print/Type Name

Pat O'Quinn
Print/Type Name

[Signature]
Signature

13th day of July, 2017.

Alejandro Agudelo
Print/Type Name

COUNTY

ATTEST:

BROWARD COUNTY, by and through
its Board of County Commissioners

Broward County Administrator, as
Ex-Officio Clerk of the Broward County

By _____
Mayor

____ day of _____, 20__

Insurance requirements
approved by Broward County
Risk Management Division

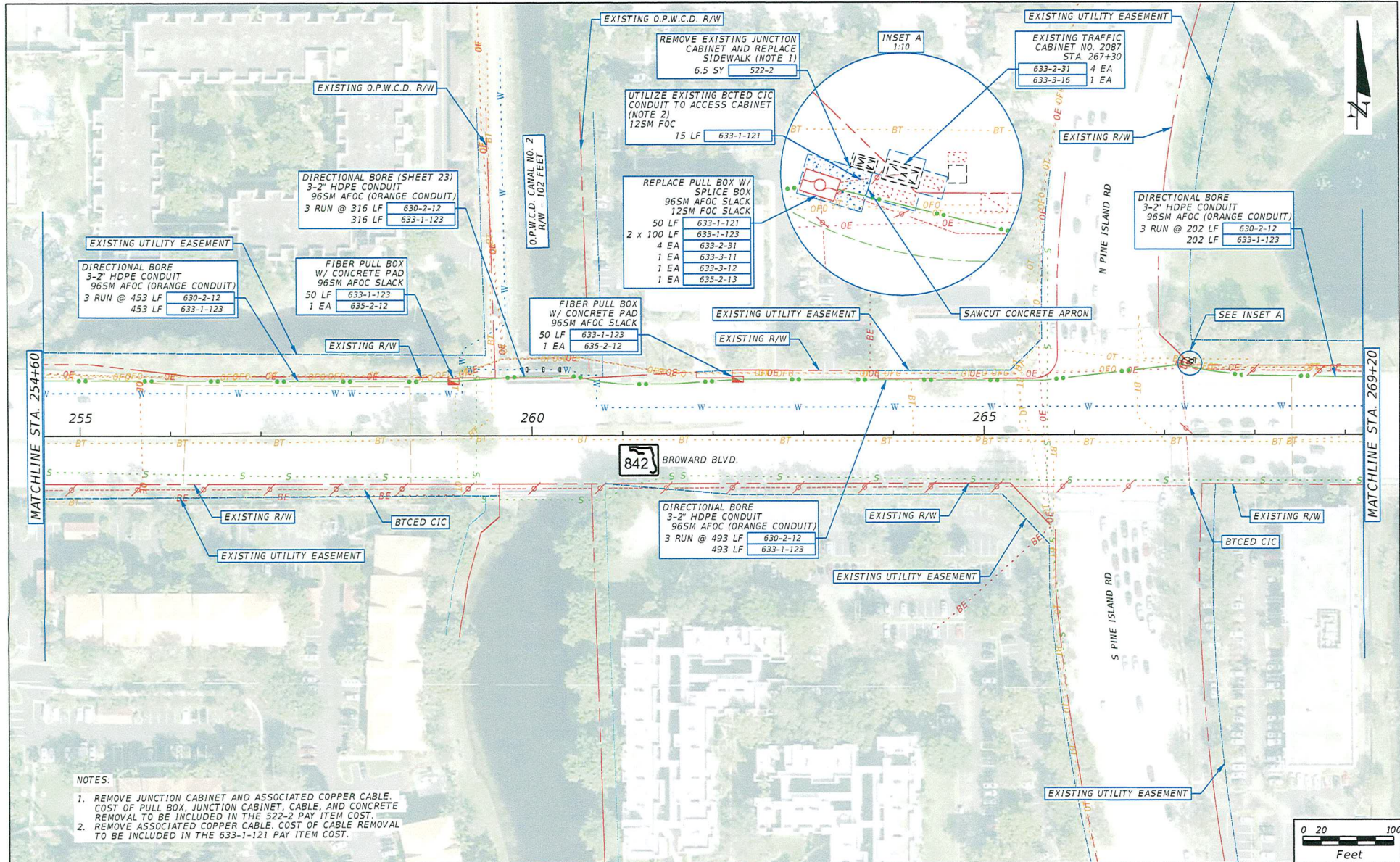
Approved as to form by Joni Armstrong
Coffey Broward County Attorney
Governmental Center, Suite 423
115 South Andrews Avenue
Fort Lauderdale, Florida 33301
Telephone: (954) 357-7600
Telecopier: (954) 357-7641

By [Signature] 7/19/17
Signature (Date)

By [Signature] 7/19/17
Maya Moore (Date)
Assistant County Attorney

TM [Signature] Property Specialist
Print Name and Title above

[Signature] 7/19/17
Michael J. Kerr (Date)
Deputy County Attorney



NOTES:

1. REMOVE JUNCTION CABINET AND ASSOCIATED COPPER CABLE. COST OF PULL BOX, JUNCTION CABINET, CABLE, AND CONCRETE REMOVAL TO BE INCLUDED IN THE 522-2 PAY ITEM COST.
2. REMOVE ASSOCIATED COPPER CABLE. COST OF CABLE REMOVAL TO BE INCLUDED IN THE 633-1-121 PAY ITEM COST.

REVISIONS	
DATE	DESCRIPTION

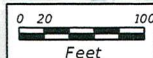
RICARDO J. GONZALEZ, P.E.
P.E. NO.: 66564
METRIC ENGINEERING, INC.
615 CRESCENT EXECUTIVE CT, SUITE 524
LAKE MARY, FLORIDA 32746
TEL. (407) 644-1898
FAX. (407) 644-2376
CERTIFICATE OF AUTHORIZATION: 2294



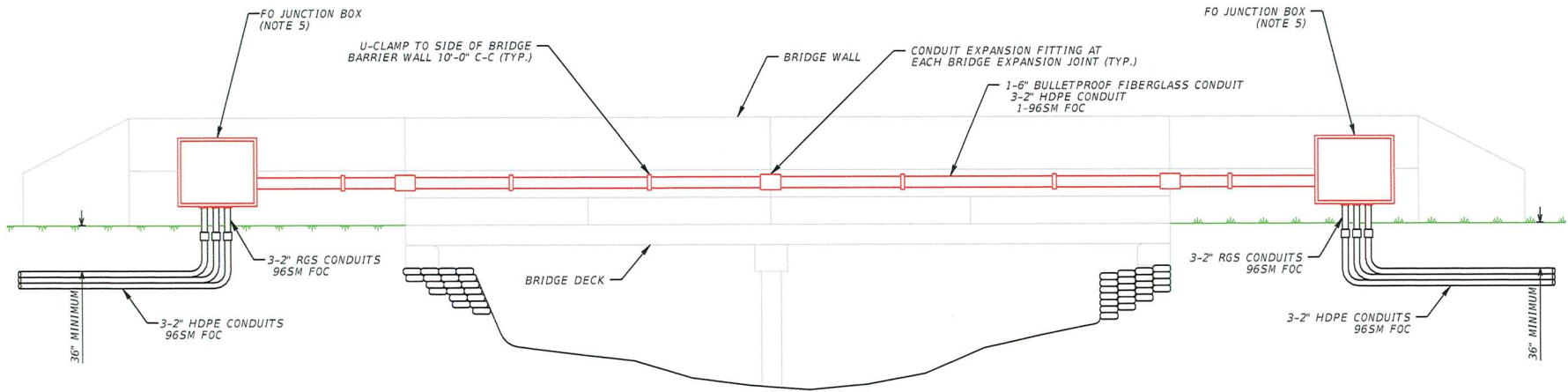
PUBLIC WORKS DEPARTMENT HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION		
CITY	ROADWAY	COUNTY PROJECT NO.
PLANTATION	BROWARD BLVD	5438

PLAN SHEET
Exhibit 1

SHEET NO.
17



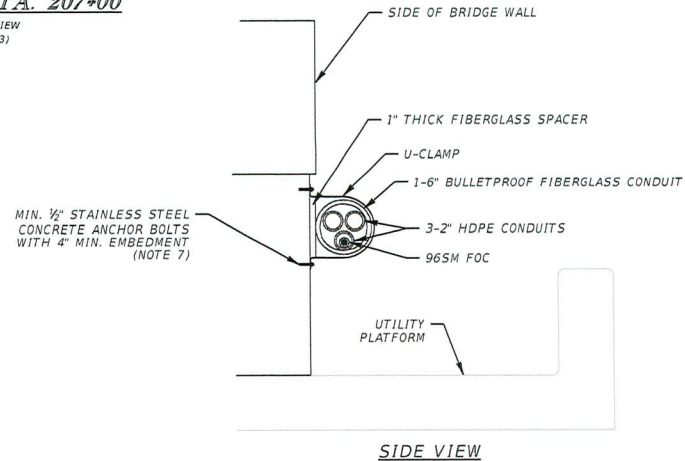
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PROFILE VIEW
(N.T.S.)

CANAL C-3 @ STA. 207+00

SOUTHBOUND VIEW
(SEE SHEET 13)



SIDE VIEW

- NOTES:
1. MOUNTING HARDWARE SHALL BE STAINLESS STEEL GRADE 316.
 2. THE MAXIMUM ATTACHMENT SPACING SHALL NOT EXCEED 10'-0".
 3. LOCATE CONDUIT RUN ALONG THE FLAT SURFACE OF THE BARRIER WALL.
 4. CONTRACTOR SHALL SUBMIT CONDUIT MOUNTING SHOP DRAWINGS FOR REVIEW AND APPROVAL BY THE ENGINEER. SHOP DRAWINGS SHALL INCLUDE CUT SHEETS FOR THE PROPOSED U-CLAMPS AND STAINLESS STEEL CONCRETE ANCHORS.
 5. NEMA 4X GASKETED WEATHERPROOF NON-METALLIC JUNCTION BOX WITH 35"x29"x11" MINIMUM INSIDE DIMENSIONS.
 6. ADHESIVE BONDING MATERIAL SHALL COMPLY WITH FDOT SPECIFICATION SECTION 937 AND INSTALLED IN ACCORDANCE WITH FDOT SPECIFICATION 416.
 7. HOLE DIAMETER AND ANCHOR DEPTH TO BE IN ACCORDANCE WITH THE CHEMICAL ANCHORAGE MANUFACTURER'S RECOMMENDATIONS.
 8. MINIMUM 36" COVER TO BE MAINTAINED OVER ALL UNDERGROUND CONDUIT INSTALLED WITHIN OPWCD RIGHT OF WAY.

REVISIONS	
DATE	DESCRIPTION

RICARDO J. GONZALEZ, P.E.
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METRIC ENGINEERING, INC.
615 CRESCENT EXECUTIVE CT, SUITE 524
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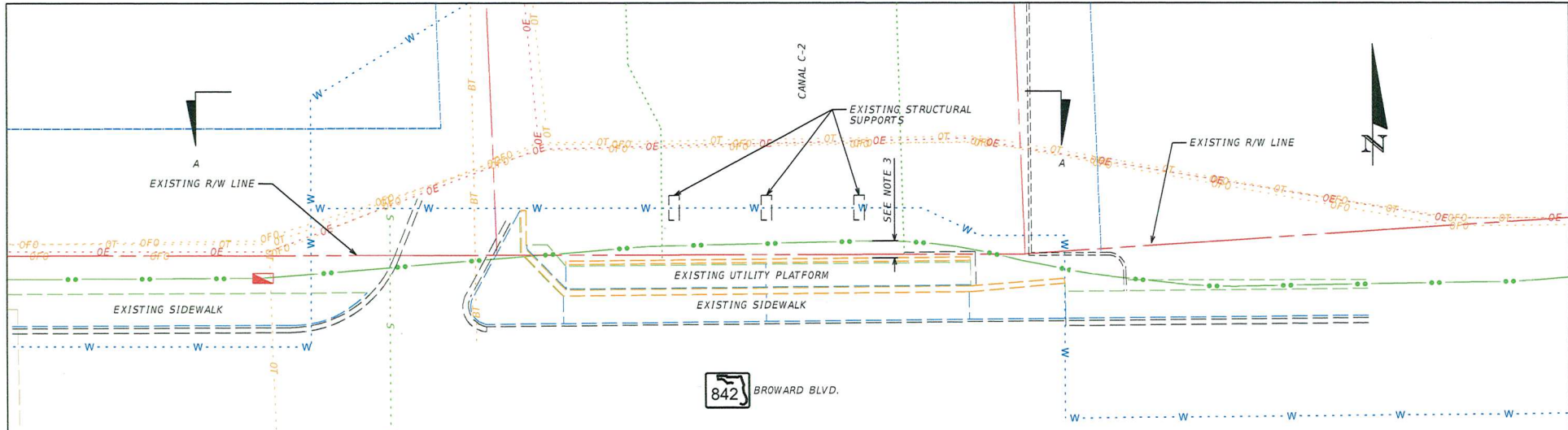


PUBLIC WORKS DEPARTMENT HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION		
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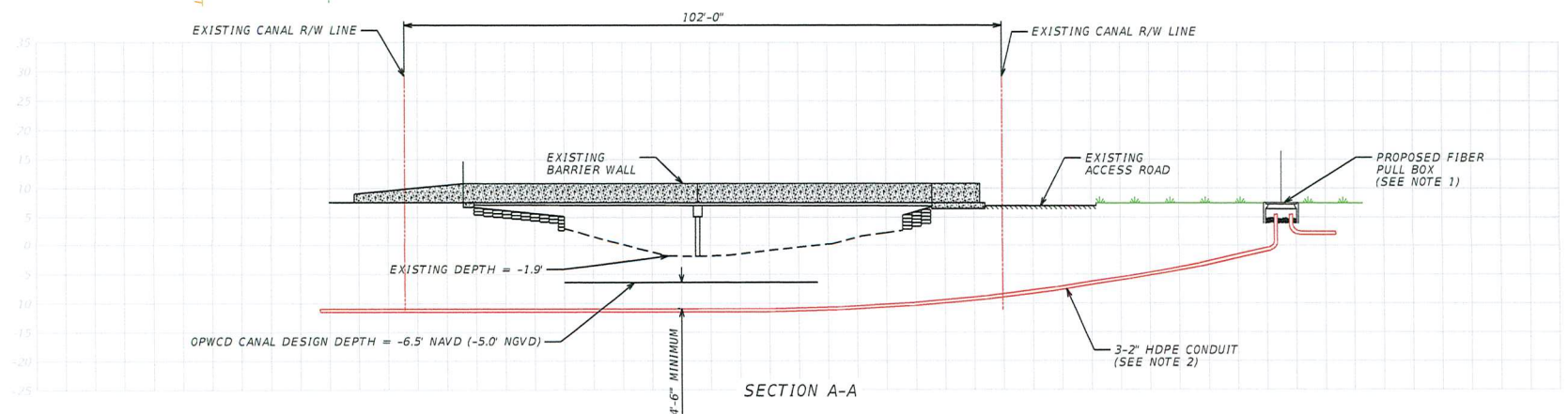
CANAL CROSSING DETAIL
Exhibit 1

SHEET NO.
22

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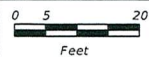
PLAN VIEW



SECTION A-A

CANAL C-2 @ STA. 260+00
(SEE SHEET 17)

- NOTES:
1. THE BORE ENTRANCE AND EXIT POINTS SHALL BE AT A MINIMUM OF 25 FEET AWAY FROM THE CANAL TOP OF BANK.
 2. THE DRILLING FLUID PRESSURE SHALL NOT EXCEED 10 PSI.
 3. DIRECTIONAL BORE OFFSET BETWEEN 1.5' AND 3' NORTH OF THE BRIDGE OVER CANAL C-2.
 4. ELEVATION VALUES SHOWN ARE BASED ON NAVD 88. (BROWARD COUNTY NGVD TO NAVD CONVERSION FACTOR OF -1.51' PER 2011 FEMA FLOOD MAPS)



REVISIONS	
DATE	DESCRIPTION

RICARDO J. GONZALEZ, P.E.
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METRIC ENGINEERING, INC.
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CERTIFICATE OF AUTHORIZATION: 2294



PUBLIC WORKS DEPARTMENT HIGHWAY CONSTRUCTION AND ENGINEERING DIVISION		
CITY	ROADWAY	COUNTY PROJECT NO.
PLANTATION	BROWARD BLVD	5438

CANAL CROSSING DETAIL
Exhibit 1

SHEET NO.
23

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FRACTION MITIGATION CONTINGENCY PLAN
FOR DIRECTIONAL DRILLING

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FRAC-OUT CONTINGENCY PLAN (FCP)

1.0 Introduction and Purpose

Directional bore operations have a potential to release drilling fluids into the surface environment through frac-outs (A frac-out is the condition where drilling mud is released through fractured bedrock into the surrounding rock and sand and travels toward the surface.) Because drilling muds consist largely of a bentonite clay-water mixture, they are not classified as toxic or hazardous substances. However, if it is released into water bodies, bentonite has the potential to adversely impact fish and invertebrates.

While drilling fluid seepage associated with a frac-out is most likely to occur near the bore entry and exit points where the drill head is shallow, frac-outs can occur in any location along a directional bore. This Frac-Out Contingency Plan (FCP) establishes operational procedures and responsibilities for the prevention, containment, and clean-up of frac-outs associated with the proposed directional drilling utility project of BCHCED - Broward Boulevard ITS. All personnel and Sub-Contractors responsible for the work must adhere to this plan during the directional drilling process.

The specific objectives of this plan are to:

1. Minimize the potential for a frac-out associated with directional drilling activities;
2. Provide for the timely detection of frac-outs;
3. Protect the environmentally sensitive riverbed and associated riparian vegetation;
4. Ensure an organized, timely, and "minimum-impact" response in the event of a frac-out and release of drilling bentonite; and
5. Ensure that all appropriate notifications are made immediately to the customer, management and safety personnel.

2.0 Description of Work:

The proposed project consists of: *(Explain work task in detail to crew members.)*

Drilling operations will be halted by the drill rig operators immediately upon detection of a drop in drilling pressure or other evidence of a frac-out. The clean-up of all spills shall begin immediately. Management & safety department shall be notified immediately of any spills and shall be consulted regarding clean-up procedures. A spill kit shall be on-site and used if a frac-out occurs. A vacuum truck and containment materials, such as straw bales, shall also be on-site prior to and during all operations. The Site Supervisor will be immediately notified. In the event of a frac-out, the on-site foreman/supervisor will conduct an evaluation of the situation and direct recommended mitigation actions, based on the following guidelines:

- a. If the frac-out is minor, easily contained, has not reached the surface and is not threatening sensitive resources, drilling operations may resume after use of a leak stopping compound or redirection of the bore;

- b. If the frac-out has reached the surface, any material contaminated with Bentonite shall be removed by hand to a depth of 2-feet, contained and properly disposed of, as required by law. The drilling contractor shall be responsible for ensuring that the bentonite is either properly disposed of at an approved disposal facility or properly recycled in an approved manner. The Site Supervisor shall notify and take any necessary follow-up response actions in coordination with agency representatives. The Site Supervisor will coordinate the mobilization of equipment stored at off-site locations (e.g., vacuum trucks) on an as needed basis;

3.0 Site Supervisor/Foremen Responsibilities:

The Site Supervisor/Foremen has overall responsibility for implementing this FCP. The Site Supervisor/Foremen will ensure that all employees are trained prior to all drilling. The Site Supervisor/Foremen shall be notified immediately when a frac-out is detected. The Site Supervisor/Foremen will be responsible for ensuring that the safety department is aware of the frac-out, coordinating personnel, response, cleanup, regulatory agency notification and coordination to ensure proper clean-up, disposal of recovered material and timely reporting of the incident. The Site Supervisor/Foremen shall ensure all waste materials are properly containerized, labeled, and removed from the site to an approved disposal facility by personnel experienced in the removal, transport and disposal of drilling mud.

The Site Supervisor/Foremen shall be familiar with all aspects of the drilling activity, the contents of this Frac-out Contingency Plan and the conditions of approval under which the activity is permitted to take place. The Site Supervisor/Foremen shall have the authority to stop work and commit the resources (personnel and equipment) necessary to implement this plan. The Site Supervisor/Foremen shall assure that a copy of this plan is available (onsite) and accessible to all construction personnel. The Site Supervisor/Foremen shall ensure that all workers are properly trained and familiar with the necessary procedures for response to a frac-out, prior to commencement of drilling operations.

4.0 Equipment:

The Site Supervisor shall ensure that:

- o All equipment and vehicles are to be checked and maintained daily to prevent leaks of hazardous materials;
- o Spill kits and spill containment materials are available on-site at all times and that the equipment is in good working order;
- o Equipment required to contain and clean up a frac-out release will either be available at the work site or readily available at an offsite location within 15-minutes of the bore site; and
- o If equipment is required to be operated near a riverbed, absorbent pads and plastic sheeting for placement beneath motorized equipment shall be used to protect the riverbed from engine fluids;

5.0 Training

Prior to the start of construction, the Site Supervisor/Foremen, shall ensure that the crew members receive training in the following:

- o The provisions of the Frac-out Contingency Plan, equipment maintenance and site specific permit and monitoring requirements;
- o Inspection procedures for release prevention and containment equipment and materials;
- o Contractor/crew obligation to immediately stop the drilling operation upon first evidence of the occurrence of a frac-out and to immediately report any frac-out releases;
- o Contractor/crew member responsibilities in the event of a release;
- o Operation of release prevention and control equipment and the location of release control materials, as necessary and appropriate; and
- o Protocols for communication with agency representatives who might be on-site during the clean-up effort.

6.0 Drilling Procedures

The following procedures shall be followed each day, prior to the start of work. The Frac-out Contingency Plan shall be available on-site during all construction. The Site Supervisor/Foremen shall be on-site at any time that drilling is occurring or is planned to occur. The Site Supervisor/Foremen shall ensure that a Job Briefing meeting is held at the start of each day of drilling to review the appropriate procedures to be followed in case of a frac-out. Questions shall be answered and clarification given on any point over which the drilling crew or other project staff has concerns.

Drilling pressures shall be closely monitored so they do not exceed those needed to penetrate the formation. Pressure levels shall be monitored randomly by the operator. Pressure levels shall be set at a minimum level to prevent frac-outs. During the pilot bore, maintain the drilled annulus. Cutters and reamers will be pulled back into previously-drilled sections after each new joint of pipe is added.

Exit and entry pits shall be enclosed by silt fences and straw. A spill kit shall be on-site and used if a frac-out occurs. A vacuum truck shall be readily available on-site prior to and during all drilling operations. Containment materials (Straw, silt fencing, sand bags, frac-out spill kits, etc.) shall be staged on-site at location where they are readily available and easily mobilized for immediate use in the event of an accidental release of drilling mud (frac-out). If necessary, barriers (straw bales or sedimentation fences) between the bore site and the edge of the water source, shall be constructed, prior to drilling, to prevent released bentonite material from reaching the water.

Once the drill rig is in place, and drilling begins, the drill operator shall stop work whenever the pressure in the drill rig drops, or there is a lack of returns in the entrance pit. At this time the Site Supervisor/Foremen shall be informed of the potential frac-out. The Site Supervisor/Foremen and the drill rig operator(s) shall work to coordinate the likely location of the frac-out. The location of the frac-out shall be recorded and notes made on the location and measures taken to address the concern. The following subsections shall be adhered to when addressing a frac-out situation.

Water containing mud, silt, bentonite, or other pollutants from equipment washing or other activities, shall not be allowed to enter a lake, flowing stream or any other water source. The Bentonite used in the drilling process shall be either disposed of at an approved disposal facility or recycled in an approved manner. Other construction materials and wastes shall be recycled, or disposed of, as appropriate.

6.1 Vac-Truck:

A vacuum truck shall be staged at a location from which it can be mobilized and relocated so that any place along the drill shot, can be reached by the apparatus, within 10 minutes of a frac-out.

6.2 Field Response to Frac-out Occurrence:

The response of the field crew to a frac-out release shall be immediate and in accordance with procedures identified in this Plan. All appropriate emergency actions that do not pose additional threats to sensitive resources will be taken, as follows:

- a. Directional boring will stop immediately;
- b. The bore stem will be pulled back to relieve pressure on frac-out;
- c. The Site Supervisor/Foremen will be notified to ensure that management and the safety department is notified, adequate response actions are taken and notifications made;
- d. The Site Supervisor/Foremen shall evaluate the situation and recommend the type and level of response warranted, including the level of notification required;
- e. If the frac-out is minor, easily contained, has not reached the surface and is not threatening sensitive resources, a leak stopping compound shall be used to block the frac-out. If the use of leak stopping compound is not fully successful, the bore stem shall be redirected to a new location along the desired drill path where a frac-out has not occurred;
- f. If the frac-out has reached the surface, any material contaminated with Bentonite shall be removed by hand, to a depth of 2-feet, contained and properly disposed of, as required by law. A dike or berm may be constructed around the frac-out to entrap released drilling fluid, if necessary. Clean sand shall be placed and the area returned to pre-project contours; and
- g. If a frac-out occurs, reaches the surface and becomes widespread, the Site Supervisor/Foremen shall authorize a readily accessible vacuum truck and bulldozer stored off-site to be mobilized. The vacuum truck may be either positioned at either end of the line of the drill so that the frac-out can be reached by crews on foot, or may be pulled by a bulldozer, so that contaminated soils can be vacuumed up.

6.3 Response Close-out Procedures:

When the release has been contained and cleaned up, response closeout activities will be conducted at the direction of the Site Supervisor/Foremen and shall include the following:

- a. The recovered drilling fluid will either be recycled or hauled to an approved facility for disposal. No recovered drilling fluids will be discharged into streams, storm drains or any other water source;
- b. All frac-out excavation and clean-up sites will be returned to pre-project contours using clean fill, as necessary; and
- c. All containment measures (fiber rolls, straw bale, etc.) will be removed, unless otherwise specified by the Site Supervisor/Foremen.

6.4 Construction Re-start:

For small releases not requiring external notification, drilling may continue, if 100 percent containment is achieved through the use of a leak stopping compound or redirection of the bore and the clean-up crew remains at the frac-out location throughout the construction period.

For releases requiring external notification and/or other agencies, construction activities will not restart without prior approval from the safety department.

6.5 Bore Abandonment:

Abandonment of the bore will only be required when all efforts to control the frac-out within the existing directional bore have failed.

7.0 Notification:

In the event of a Frac-out that reaches a water source, the Site Supervisor/Foremen will notify safety department so they can notify the appropriate resource agencies. All agency notifications will occur within 24 hours and proper documentation will be accomplished in a timely and complete manner. The following information will be provided:

1. Name and telephone number of person reporting;
2. Location of the release;
3. Date and time of release;
4. Type and quantity, estimated size of release;
5. How the release occurred;
6. The type of activity that was occurring around the area of the frac-out;
7. Description of any sensitive areas, and their location in relation to the frac-out;
8. Description of the methods used to clean up or secure the site; and
9. Listing of the current permits obtained for the project.

7.1 Communicating with Regulatory Agency Personnel:

All employees and subcontractors will adhere to the following protocols when permitting Regulatory Agency Personnel arrive on site. Regulatory Agency Personnel will be required to comply with appropriate safety rules. Only the Site Supervisor/Foremen and the safety department are to coordinate communication with Regulatory Agency Personnel.

7.2 Documentation:

The Site Supervisor/Foremen shall record the frac-out event in his or her daily log. The log will include the following: Details on the release event, including an estimate of the amount of bentonite released, the location and time of release, the size of the area impacted, and the success of the clean-up action. The log report shall also include the: Name and telephone number of person reporting; Date, How the release occurred; The type of activity that was occurring around the area of the free-out: Description of any sensitive areas, and their location in relation to the frac-out: Description of the methods used to clean up or secure the site; and a listing of the current permits obtained for the project.

8.0 Project Completion and Clean-up:

- a. All materials and any rubbish-construction debris shall be removed from the construction zone at the end of each workday;
- b. Sump pits at bore entry and exits will be filled and returned to natural grade; and
- c. All protective measures (fiber rolls, straw bale, silt fence, etc.) will be removed unless otherwise specified by the Site Supervisor/Foremen.