Date:	5/9/2005	Docket No.:	050318 -WU

2. OPR:	ECR
3. OCR:	
4. Suggested Docket Title:	Request for Increase in Service Connection Charges in Highlands County, by Placid Lakes Utilities, Inc.

5. **Suggested Docket Mailing List (attach separate sheet if necessary)**

   A. **Provide NAMES OR ACRONYMS ONLY if a regulated company.**

   B. **Provide COMPLETE NAME AND ADDRESS for all others. (Match representatives to companies.)**

   1. **Parties and their representatives (if any):**

Placid Lakes Utilities, Inc.	
410 Washington Blvd. NW	
Lake Placid Florida' 33852	

   2. **Interested persons and their representatives (if any):**

6. **Check one:**

   ☒ **Documentation is attached.**

   ☐ **Documentation will be provided with recommendation.**

Placid Lakes Utilities, Inc.

A DIVISION OF LAKE PLACID HOLDING CO.

410 Washington Blvd. NW
Lake Placid, Florida 33852

Office: (863) 465-0345
Water Plant: (863) 465-2427
Fax: (863) 465-1313

May 3, 2005

Troy Rendell
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Request For Increase of Service Connect Fee

Dear Mr. Rendell:

Enclosed please find a copy of the letter and attachments sent to us by Highlands County Engineer Ramon Gavarrete. Although the county adopted the Land Development Regulations in 1995 they have only recently begun to enforce them. When we questioned the increased cost to our customers, the county met with us to discuss the issues. The letter was their final response to our concerns. So we have been complying with the requirements. The pushunders were $150 each but the bores are $507.50.

Enclosed are copies of actual invoices from our suppliers that show the cost of parts for the service line and meters. I have added shipping, tax, storage and handling. Labor includes man hours plus use of a truck and equipment. The labor cost is more now because the pushunder included the connection but the bore leaves pipe on both sides of the road that our employees have to connect to the main on one side and the meter box on the other.

We propose that the cost of the bore be divided by lots on both sides of the road to keep the cost fair to all customers. Therefore the cost will be divided by four service connections. If the cost is only split by the two lots on one side of the road, we will need to add additional costs for record keeping and line locates. So, to keep costs down, we think all customers should pay a fair share.

If you have any questions or need further information, please contact me at the above phone or fax numbers.

Sincerely,

Pam Brewer

Pam Brewer
Office Manager

METERS		Tax &	Storage &				
	Cost	Shipping	Handling				
5/8"	$78.50	$5.50	$15.70	$99.70			
Single box	$92.58	$6.48	$18.52	$117.58			
Labor	$100.00			$100.00			
				$317.28			
Services							
3X1 Brass Saddle	$18.05	$1.27	$3.61	$22.93			
4X1 Brass Saddle	$21.79	$1.09	$4.36	$27.24			
6X1 Brass Saddle	$31.70	$2.22	$6.34	$40.26		$30.15	Average
1" Brass Corp Stop	$23.35	$1.64	$4.67	$29.66		$29.66	
1"X3/4"x3/4" Y	$17.42	$1.22	$3.49	$22.13		$22.13	
3/4" FIP	$8.08	$0.57	$1.62	$10.27		$10.27	
2X8X16 Block	$1.15	$0.08	$0.23	$1.46		$1.46	
10' 1" Poly	$3.10	$0.22	$0.62	$3.94		$3.94	
5' 3/4" Poly	$1.00	$0.07	$0.20	$1.27		$1.27	
Labor	$250.00					$250.00	
Bore	$507.50					$126.88	4 Services
						$475.76	

HIGHLANDS COUNTY
BOARD OF COUNTY COMMISSIONERS
ENGINEERING DEPARTMENT

April 8, 2005

Mr. Scott Hutchins
Placid Lakes Utilities, Inc.
410 Washington Blvd. NW
Lake Placid, FL 33852

RE: HIGHLANDS COUNTY GENERAL UTILITY APPLICATION/PERMITS

Dear Mr. Hutchins,

This letter is in response to your concerns about County policy and application fees. As a permit holder your company agrees to be bound by the *Highlands County Land Development Regulations* and the conditions stated on the application upon submittal to this office for construction of your facilities within the County right-of-ways.

The Highlands County of Board of County Commissioners adopted the attached revisions to our Schedule of fees via resolution on September 4, 2001. I am attaching copy of this executed Resolution No. 01-117.

I am also attaching copy of Article Six: Construction Codes & Permits, Section Four: Utility Permits, of the Highlands County Land Development Regulations. These rules have been in effect since January 1, 1995. As the applicant, you must comply with these rules. The condition stated in item (d) of the permit application, "all county property shall be restored to its original condition as far as practical, in the opinion of the County Engineer" is just one of the conditions you must comply with. As per our meeting, your company shall sod the edge of the roadway a distance of 2 feet, in areas where existing grass/stabilization has been disturbed and seed and mulch the remaining portion of disturbed areas within the permitted project. Please note the seed & mulch must be in accordance with all adopted standards.

Special attention is directed to Part C, Paragraph 003 (a). All items listed in this section must be shown on the drawings accompanying your application. Furthermore, Paragraph 004 of this section states: "Failure to perform satisfactory construction may result in the County's not issuing additional permits to the applicant until deficiencies are corrected.

If you have any questions you can contact me at (863) 402-6877.

Sincerely,

Ramon D. Gavarrete, P.E.
County Engineer/Utilities Director

cc: Carl E. Cool, County Administrator
Board of County Commissioners

Enclosures: *Highlands County Land Development Regulations, Article Six, Section Four: Utility Permits*
"Exhibit A" FEE SCHEDULE, resolution, as adopted by the Board of County Commission

G:\UTILITY USE PERMITS\04-05\PLACID LAKES UTILITIES\POLICY COMPLIANCE\POLICIES.WPD

505 South Commerce Avenue, Sebring, Florida 33870-3869
(863) 402-6877 • FAX (863) 402-6548

RESOLUTION 01-117

WHEREAS, the Board of County Commissioners of Highlands County, Florida, has established and may amend by resolution a schedule of fees from time to time for development order applications, review fees, and the filing and processing of development agreements as necessary and deemed warranted; and

WHEREAS, the County Engineer has submitted a comprehensive fee schedule, which is attached hereto as "Exhibit A" to this resolution, setting forth a schedule of costs and charges which accurately accounts for costs of professional review, staff, equipment, and materials; and

NOW, THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Highlands County, Florida;

SECTION 1: "Exhibit A" is hereby adopted as the applicable fee schedule to comply with the provisions of Section 12-5 Highlands County Code of Ordinances, Section 163.3220 through 163.3243 Florida Statutes, pursuant to the Highlands County Land Development Regulations, Article Four, Section Six, Part B, Paragraph 002, C, and Highlands County Land Development Regulations, Article Five, Section Three, Part B, Paragraph 002 and Paragraph 003. "Exhibit A" is hereby incorporated herein.

SECTION 2: The above identified "Exhibit A" may be amended in whole or in part by further resolution of the Board as may be necessary and deemed warranted.

SECTION 3: This resolution shall take effect October 1, 2001. When the text of this Fee Schedule, identified "Exhibit A", is published for inclusion in the Code of Ordinances, Highlands County, Florida, the text marked for deletion by strike-through text shall be deleted and the additions appearing as underlined text shall be added so that the text of the Code shall be amended.

ADOPTED this 4th day of Sept, 2001

BOARD OF COUNTY COMMISSIONERS
HIGHLANDS COUNTY, FLORIDA

BY: C. Guy Maxcy
C. Guy Maxcy, Chairman

ATTEST:

BY: Robert Jamison, Deputy Clerk
For L.E. "Luke" Brooker, Clerk

HIGHLANDS COUNTY
BOARD OF COUNTY COMMISSIONERS
ENGINEERING DEPARTMENT

"EXHIBIT A"
FEE SCHEDULE
Effective October 1, 2001

Comprehensive Plan Amendments - Engineering Review

Small Scale Map Amendment:
Pre-Application Conference (Optional) $100.00
Concurrency Traffic Analysis Review $60.00

Large Scale Map Amendment:
Pre-Application Conference ..... ~~$100.00~~ . . $150.00
Concurrency Traffic Analysis Review $100.00

Concurrency Review of:
Small Project w/traffic analysis by County Engineer $200.00
Project w/Minor Traffic Study ..... ~~$200.00~~ . $250.00
Project w/ Land Development Traffic Assessment (LDTA) $500.00

Development of Regional Impact (DRI):
Base Fee ..... ~~$1,200.00~~ . . $2000.00
Additional Charge Per Acre Over 400 Acres ..... ~~$3.00~~ $5.00
Substantial Deviation (DRI) ..... ~~$500.00~~ . $750.00
Annual Review Fee $200.00

Flood Hazard Development Permit ..... ~~$200.00~~ . . $300.00

Improvement (Development) Plans Review:
Preliminary Site Plan Review (per sheet) ..... ~~$200.00~~ . . $300.00
Final Site Plan Review (per sheet) ..... ~~$200.00~~ . . $300.00
Revision Review of Prior Approved ~~Plat~~/Plan (per sheet) ..... ~~$100.00~~ . . $200.00

Planned Development District Review:
Base Fee ..... ~~$1,000.00~~ . . $2,000.00
Additional Charge Per Acre Over 400 Acres ..... ~~$2.50~~ $3.00
Post Approval Revisions Review/Text Amendments ..... ~~$500.00~~ . $750.00
Annual Review Fee $200.00

Subdivision User Fees by Professional Surveyor and Mapper Employed By Highlands County
Preliminary Plat Review:
1-50 Property Corners, Permanent Control Points/Monuments $500.00
1-100 Property Corners, Permanent Control Points/Monuments $700.00
1-150 Property Corners, Permanent Control Points/Monuments $900.00
1-200 Property Corners, Permanent Control Points/Monuments $1,100.00
1-250 Property Corners, Permanent Control Points/Monuments $1,300.00
1-300 Property Corners, Permanent Control Points/Monuments . $1,500.00

"Exhibit A"

Proposed Revised Fee Schedule
Proposed Revisions Underlined
Effective October 1, 2001

Final Plat Review, and Field Locate All Corners:

1-50 Property Corners, Permanent Control Points/Monuments	$500.00
1-100 Property Corners, Permanent Control Points/Monuments	$700.00
1-150 Property Corners, Permanent Control Points/Monuments	$900.00
1-200 Property Corners, Permanent Control Points/Monuments	$1,100.00
1-250 Property Corners, Permanent Control Points/Monuments	$1,300.00
1-300 Property Corners, Permanent Control Points/Monuments	$1,500.00
Field Locate All Corners (Property Corner, Permanent Reference Control Point/Monument)	$5.00 ea
Revision Review of Prior Approved Preliminary or Final Plat (per sheet)	$100.00

Residential Driveway Permit:

With grades set by County Survey Crew, One access	~~$90.00~~	$120.00
Without grades set, One access	~~$60.00~~	$80.00
With grades set by County Survey Crew, More than one access		$180.00
Without grades set, More than one access		$120.00
Renewal of expired permit	~~$30.00~~	$40.00
Re-setting of grade stakes	~~$30.00~~	$60.00
Re-inspection of finals	~~$30.00~~	$60.00
Existing driveway inspection	~~$30.00~~	$50.00
Sod letter check and re-checks	~~$30.00~~	$50.00
Seed & Mulch letter check and re-check	~~$90.00~~	$50.00
Road Damage (per sq. yd.)	~~$20.00~~	$60.00

Non-Residential (Commercial) Driveway Permit	$400.00

Media Processing Costs

Aerial Map	$5.00

Copies - Monochrome:

18 X 24 Blueprint	~~$1.00~~	$0.67 per sq.ft.
24 X 36 Blueprint	~~$2.00~~	$0.67 per sq.ft.
24 X 36 Blackline	~~$3.00~~	$0.67 per sq.ft.
32 X 36 Blackline	~~$5.00~~	$0.67 per sq.ft.
11 X 17 Blackline	~~$1.00~~	$0.67 per sq.ft.
Letter Size Copies (F.S. 119.07)	~~$0.10~~	$0.15
Legal Size Copies (F.S. 119.07)	~~$0.15~~	$0.15
Two sided (Letter Size Copies) (F.S. 119.07)	~~$0.15~~	$0.20
Two sided (Legal Size Copies) (F.S. 119.07)	~~$0.25~~	$0.20
Two sided (11 X 17 Copies)		$1.50

Copies - Color:

11 X 17	~~$1.00~~	$2.50
Letter Size Copies (F.S. 119.07)	~~$0.15~~	$0.15
Legal Size Copies (F.S. 119.07)	~~$0.20~~	$0.15
Two sided (Letter Size Copies) (F.S. 119.07)	~~$0.20~~	$0.20
Two sided (Legal Size Copies) (F.S. 119.07)	~~$0.25~~	$0.20
Two sided (11 X 17 Copies)	~~$1.50~~	$5.00

Land Development Regulations	~~$50.00~~	$75.00

"Exhibit A"
Proposed Revised Fee Schedule
Proposed Revisions Underlined
Effective October 1, 2001

Digital Analysis, Overlays and Associated Manual Work:
Minimum Charge (One Hour) ..... ~~$25.00~~ .. $75.00
Additional Hours $30.00

Electronic Data Base and Digital Map Files Per Hour:
Minimum Charge (One Hour) $25.00
Computer Time (Per Hour) $25.00
Staff Time (Per Hour) $25.00
Additional Hours $30.00

Electrostatic Plots:
11 X 17 ..... $15.00
18 X 24 ..... $20.00
24 X 36 ..... $25.00
36 X 42 ..... $30.00
36 X 36 ..... $25.00
29 X 46 ..... $25.00
33 X 42 ..... $25.00

Highlands County Road Map ..... ~~$1.00~~ .. $1.50

Map of Roads Maintained By County ..... ~~$35.00~~ .. $50.00

Mining Permits:
Base Fee, Plan Review (per sheet) ..... ~~$200.00~~ .. $300.00
Per Mining Acre $2.00
Annual Review Fee ..... ~~$200.00~~ .. $300.00

Use Permits:
Right-of-Way Use Permit ..... ~~$200.00~~ .. $300.00
Utility Use Permit ..... ~~$200.00~~ .. $300.00

Vacation of Easement ..... ~~$200.00~~ .. $300.00

Vacation of Plat ..... ~~$200.00~~ .. $400.00

Vacation of Right-of-Way ..... ~~$200.00~~ .. $400.00

Variance Request to Land Development Regulations $200.00

ARTICLE SIX: CONSTRUCTION CODES & PERMITS

Ord. 95-36 effective 12/12/95

Table of Contents

SECTION FOUR: UTILITY PERMITS

ARTICLE SIX: CONSTRUCTION CODES & PERMITS

Ord. 95-36 effective 12/12/95

SECTION FOUR: UTILITY PERMITS

Part A: General Provisions

Paragraph 001. Purpose and Intent: This section is established to regulate the location, manner, installation and adjustment of utility facilities along, across, under or on any right-of-way under the jurisdiction of Highlands County. The section also regulates the issuing of permits for such work which is in the interest of safety, protection, utilization, and future development of the County's roads and streets with due consideration given to public service afforded by adequate and economical utility installations as authorized under this section of these regulations and Sections 337.401 thru 337.404, Florida Statutes. Adherence shall be required under the circumstances set forth in this section.

a. Utilities Liaison: Recognizing that all utility owners serving the public have a common obligation to provide their services in a cost effective manner, Highlands County will coordinate its advance planning of road projects with the affected utilities to facilitate the relocation of the utility in order to eliminate costly construction delays. As part of its project planning and development process the County will consider the cost of utility work necessary for the proposed project. The County will keep utility agencies informed of future transportation projects and request the utility agencies to advise the County of existing and proposed structures within proposed work areas.

b. Authorization by Highlands County Required: No person shall enter upon any right-of-way under the jurisdiction of Highlands County to construct, alter, operate, maintain or relocate any utility installation without first being issued a permit to do so.

c. Issuance of Utility Permits: The County Engineer has been assigned the responsibility and granted the authority to review permit applications and issue permits for construction and maintenance of utilities within County rights-of-way. When an application is approved, a utility permit will be issued in conformity with this section of these regulations.

Revised 07/01/96 Ord. 96-12

d. Transmission Lines: Applications for permits to construct and maintain aboveground and underground **transmission** lines shall be submitted to the County Engineer in the same manner as other applications for utility permits, but approval must be authorized by the Board of County Commissioners before the County Engineer issues the utility permit. (Distribution lines are exempt from this provision of BCC approval, but still subject to the application requirements for a utility permit.) See Part N of this section.

e. Appeals: Where actual field conditions vary from those outlined in this section, differences may arise as to what accommodation criteria is appropriate under the actual conditions. When such differences cannot be resolved by the applicant and the County Engineer, the applicant may appeal the County Engineer's decision as provided for in Article Five, Section Three, Part G, *Appeals*.

Supplement No. 1

Paragraph 002. Existing Facilities: Existing aboveground and underground utility facilities in County rights-of-way as of the date of adoption of this section of the regulations will be presumed to be properly permitted in accordance with the existing guidelines in effect at the times of their installation whether or not documentation to the effect can be found. Occupying the right-of-way without written documentation being on file carries with it the same responsibility as that of a bona fide permit holder. Review of disputes shall be as provided for in Paragraph 001, e of this part.

Paragraph 003. Joint Use of Land: Where the Utility Agency/Owner (UAO) has a compensable interest in the land occupied by its facilities and such land is to be jointly owned or used for road and utility purposes, Highlands County and the UAO shall agree in writing as to the obligations and responsibilities of each party. In any event, the interest to be acquired by or vested in the County in any portion of the right-of-way of a road project to be vacated, used or occupied by utilities or private lines shall be of a nature and extent adequate for the construction, safe operation and maintenance of the road project.

Paragraph 004. Prohibited Use of County Right-of-Way: No individual, firm, company or governmental agency may be permitted to use the County right-of-way for monetary gain except where provided for by the Public Service Commission, Federal Energy Regulatory Commission, Federal Communications Commission, or Highlands County.

Part B: Definition of Terms

Wherever in this section or other documents pertaining to this section the following terms appear, their intent and meaning shall, unless specifically stated otherwise, be interpreted as follows:

Abandoned - to give up by leaving or ceasing to operate a utility facility;

Actual Crossing Operation - that phase of the work authorized by the utility permit, when the casing or uncased carrier pipe is being placed within the physical limits prescribed to determine the required casing length as set forth in Part L, Paragraph 002, b. of this section; this will not include preliminary work, such as jacking pit construction, equipment set-up, etc.;

Adequate - the ability to satisfy a requirement of Highlands County;

As Builts - plans that show horizontal locations and vertical elevations tied to a known reference point (e.g., State Plane Coordinates) of all deviations from submitted/approved plans;

Auxiliary Lane - the portion of the roadway adjoining the traveled way for parking, access ramps, speed changes, turning, storage for turning, weaving, truck climbing or other purposes supplementary to through traffic movement;

Certified Welder - a person who has been trained and meets all applicable requirements for the particular type of welding being performed under a permit;

Competent - legally fit or qualified and adequate for the stipulated purpose;

Conduit - an enclosure for protecting wires and cables;

Contractor - the individual, firm or company, contracting with a UAO or Highlands County to work or furnishing materials or in contract as a subcontractor for a prime contractor, firm or company;

Revised 07/01/96 Ord. 96-12
Electric Distribution Line - conductors which distribute electric energy from neighborhood substations to the customer's premises;

Revised 07/01/96 Ord. 96-12
Electric Substation - an assemblage of equipment for purposes other than generation or utilization through which electric energy in bulk is passed for the purposes of switching or modifying its characteristics to meet the needs of the general public;

Revised 07/01/96 Ord. 96-12
Electric Transmission Line - interconnected electric lines and associated equipment for the movement or transfer of electricity in bulk between points of generation and distribution *(Electric lines of 70KV or less capacity are exempt from requirements in Part N of this section, but subject where applicable, to the remainder of this section)*;

Emergency - a situation or occurrence of a serious nature, developing suddenly and unexpectedly, and demanding immediate action that will effect the safety of the motoring public or a condition that will cause damage to the County's right-of-way; during a situation of this type the UAO can and may protect the public safety sooner by using equipment on hand, than by strictly complying with the requirements of this section;

Erosion Control - the method used to protect County rights-of-way and any of its facilities by complying with all County, State, and federal regulations; normally this is accomplished by placing sod in all areas disturbed by the utility construction;

FAC - Florida Administrative Code;

FDOT - Florida Department of Transportation;

FHWA - Federal Highway Administration;

Inspector - authorized representative of the County Engineer;

Interference of Traffic - the obstruction, impeding, or otherwise disruption of vehicle movement;

Major Crossing - pipe crossings 8 inches or greater in outside diameter; crossings requiring well point dewatering; and other crossings of an unusual and difficult nature as determined by the County Engineer;

Manhole - an opening in an underground system which workmen or others may enter for the purpose of making installations, inspections, repairs, connections and tests;

Median - the portion of a divided highway or street separating the traveled ways for traffic moving in opposite directions;

MOT - maintenance of traffic;

MUTCD - *Manual on Uniform Traffic Control Devices*;

Pavement - a paved travelway, normally including an asphaltic or concrete surface designed to carry the anticipated traffic for a specified design period;

Permittee - the right-of-way user responsible for permitted maintenance or construction whether by their own forces or by contractors and subcontractors properly licensed by a municipality, the County, or by the State;

Placed out of Service/Deactivated - the language used when UAOs are allowed to leave their facilities in place on a County right-of-way after the facility is no longer active;

Qualified - the ability, shown by license, registration, certification, etc., to perform required tasks as needed to perform certain job duties;

Relocation - the adjustment of utility facilities required by a road project or a County Driveway Permit, such as removing and reinstalling the facility, including necessary right-of-way on new locations, moving or rearranging existing facilities or changing the type of facility, including any necessary safety and protective measures; it shall also mean constructing a replacement facility when necessary for continuous operation of the utility service, the project economy, or a sequence of road construction or maintenance operations;

Right-of-Way - right-of-way, public right-of-way, and County right-of-way have the same meaning in this section of these regulations; all three terms refer to a right-of-way dedicated to the public, Highlands County, and/or the Board of County Commissioners, either by recorded plat, deed, or easement, and include both County maintained and non-County maintained rights-of-way; right-of-way as used here does not include private right-of-way, State right-of-way, municipal right-of-way or *Transmission Line Right-of-Way* as defined in Part N of this section;

Right-of-Way User - the individual, firm, company or governmental agency having a facility on or occupying any part of the County right-of-way under permit or legal right;

Routine Maintenance - the everyday maintenance of one's facilities;

Traveled Way - the portion of the roadway for the movement of vehicles, exclusive of shoulders and auxiliary lanes;

UAO - Utility Agency/Owner;

Utility - **all** privately, publicly or cooperatively owned lines, facilities and systems for producing, transmitting or distributing communications, power, electricity, light, heat, gas, oil, crude products, water, steam, waste and storm water not connected with highway drainage, and other similar commodities, including television transmission signals, publicly owned fire and police signal systems and street lighting systems, which directly serve the public or any part thereof; the term "Utility" shall also mean the UAO, inclusive of wholly owned or controlled subsidiaries; and

Utility Facilities - all privately, publicly or cooperatively owned lines, facilities and systems for producing, transmitting or distributing communications, power, electricity, light, heat, gas, oil, crude products, water, steam, waste and stormwater not connected with highway drainage, and other similar commodities, including television transmission signals, publicly owned fire and police signal systems and street lighting systems, which directly serve the public or any part thereof.

Part C: Utility Permits

Paragraph 001. General Permit Conditions: A permit to a UAO must be approved by the County Engineer before any utility is installed on a County right-of-way, whether it is for aerial or underground installations or attachment onto bridge structures, except as noted in this section of these regulations. A Highlands County Utility Permit application/permit form may be obtained from the office of the County Engineer. The permit application fee will be as established by the Board of County Commissioners. When approved and issued, the Utility Permit will authorize utility construction within a County right-of-way as described in the application and detailed on accompanying drawings. In accepting the permit the applicant/UAO agrees to be bound by this section of these regulations including, but not limited to, the conditions listed below.

a. The construction and maintenance of such utility shall not interfere with the property and rights of other existing occupants.

b. All work shall be done in keeping with standards of the County Engineering Department and subject to the approval of the County Engineer .

c. All materials and equipment shall be subject to inspection by the County Engineer.

d. During construction all safety regulations shall be observed and the County shall be relieved of all responsibility from damage of any nature arising from this permit.

e. All County property shall be restored to its original condition as far as practical.

f. All construction shall conform to the standards and requirements of this section. If at any time during the utility installation/construction, the County Engineer finds that the permit conditions have been violated, the County Engineer may issue an immediate *Stop Work Order*.. The *Stop Work Order* shall be in effect until the operation is brought into compliance with the permit. Failure to perform satisfactory construction may result in the County's not issuing additional permits to the applicant until deficiencies are corrected.

g. The attached drawing is made a part of the permit.

h. It is expressly stipulated that the permit is a license for permissive use only and that the placing of facilities upon public property pursuant to this permit shall not operate to create or to vest any property right in said holder.

i. The permit shall state whether it is granted in perpetuity or for a term of years and in either event that:

1) the permit is subject to termination by the Board without compensation in the event the road or highway is closed, abandoned, vacated, discontinued, or reconstructed; and

2) in the event of widening, repair, or reconstruction of any such road, the permittee shall move or remove such utility facilities at no cost to the County.

j. Whenever necessary for the construction, repair, improvement, alteration, or relocation of all, or any portion of said road or street as determined by the County Engineer, any or all of said poles, wires, pipes, cables or other facilities and appurtenances authorized hereunder, shall be immediately removed from the said road or street, or reset or relocated thereon, as required by the County Engineer and at the expense of the holder.

k. The permittee shall complete permitted construction within 365 calendar days from date of said permit.

l. Applicant declares that prior to filing this application he has ascertained the location of all existing utilities, both aerial and underground. Applicant also declares that due notice of work under application was furnished to each utility involved and that copies of letters addressed to said user are attached.

m. It is understood and agreed that the rights and privileges herein set out are granted only to the extent of the County's right, title and interest in the land to be entered upon and used by the holder and the holder will at all times assume all risk of and indemnify, defend, and save harmless Highlands County from and against any and all loss, damages, cost or expense arising in any manner on account of the exercise or attempted exercises by said holder of the aforesaid rights and privileges. During construction, all safety regulations of the Florida Department of Transportation shall be observed and the holder must take such measures, including placing and display of safety devices, as may be necessary in order to safely conduct the public through the project area.

n. The office of the County Engineer shall be notified 24 hours in advance before starting work.

o. The permittee agrees to accept maintenance of any road cut or subterranean crossing for a period of 36 months after the County Engineer's office is notified of completion of construction.

Paragraph 002. Archaeological or Historic Remains: Notwithstanding the UAO's preconstruction efforts to determine, locate and/or identify all known archaeological and historical sites within the route of its utility facility, either through the use of local, state and federal listings and notices or through the on-site preliminary reconnaissance of an accredited consultant, artifacts of undetermined significance may be unearthed during construction. In event that such an encounter shall occur, construction activity in the immediate vicinity of the discovery shall be temporarily discontinued, and the procedure cited in Article Four, Section Five, Part D, Paragraph 003 and 007, *Archaeological Resources*, shall be initiated.

Paragraph 003. Application:

a. Drawings: Schematic installation drawings of the proposed installation, not necessarily to scale, shall accompany each copy of the Utility Permit application. The following shall be shown on the drawings:

1) north arrow;

2) road name;

3) offset from the centerline of the roadway to the proposed utility installation;

4) right-of-way limits;

5) pavement width;

6) distance from edge of pavement to utility installation;

7) distance from nearest major intersection, nearest town, railroad crossing, and/or other physical features;

8) bridge locations with numbers where applicable;

9) information such as materials to be used, pipe or conduit size, use of the facility (power with voltage, gas with maximum allowable operating pressure, etc.) and other pertinent details;

10) one or more typical cross sections as required to adequately reflect the proposed location of the utility;

11) the minimum vertical clearance above or below the pavement;

12) a statement that all disturbed area in the County right-of-way shall be restored to its original configuration; and

13) all known involved utilities in the proposed installation area; however, if only aerial facilities requiring no additional poles are involved, then only aerial facilities need be shown on the permit drawing; if overhead or underground facilities involve only one side of the right-of-way, then only involved utilities on that side of the right-of-way need be shown on the permit drawing; this subparagraph does not apply to gas distribution and transmission lines which must be shown in their entirety on the drawing.

b. Special Requirement for Utility Construction Within the Vicinity of Existing Gas Pipelines: Section 553.851, F.S., provides for the protection of underground gas pipelines. It includes (1) "Definitions," (2) "Notice and Marking Requirements for Excavation," and (3)

"Excavation; Liability for Negligence; Notice of Damage or Dislocation; Emergencies". In order for both the UAO applicant and the County to comply with this section of the Florida Statutes, **every** application for a utility permit submitted to the County Engineer's office shall contain the following certification by the UAO with an original signature: ***The undersigned certifies that he has complied with the provisions of Paragraph (2), (a), Section 553.851, Florida Statutes, as amended, concerning requesting gas pipeline location information and will comply with the provisions of Paragraphs (2), (c) and (2), (f) of the same section concerning notifying pipeline owners 48 hours prior to any excavation***. An application not containing this certificate shall be returned to the applicant for revision. The paragraphs referenced in the certificate are reproduced here, but the applicant should consult the full text of Section 553.851, Florida Statutes, as it may be amended, for clarification:

1) Paragraph (2), (a), Section 553.851, F.S., states "No excavator shall commence or perform any excavation in any public or private street, alley, right-of-way dedicated to public use, or gas utility easement without first obtaining information concerning the possible location of gas pipelines in the area of the proposed excavation from any person having the right to bury gas pipelines within the public or private street, alley, right-of-way, or gas utility easement. Such information may be requested by telephone, letter, telegraph, or messenger or in person, at the prework conference for the job requiring the proposed excavation, or by calling a utility notification center operating in the area."

2) Paragraph (2), (c), Section 553.851, F.S., states "The excavator shall notify the owner in the manner prescribed in subsection (1) so that the owner receives notification at least 48 hours, excluding Saturdays, Sundays, and legal holidays, prior to starting excavation."

3) Paragraph (2), (f), Section 553.851, F.S., states "Should any permit for excavation as described in paragraph (e) be held for more than 30 days prior to excavation, the excavator shall be required to again notify the owner not less than 48 hours or more than 5 days prior to commencing excavation."

c. Notification to Other Right-of-Way Users: In all cases, the applicant shall submit copies of letters that have been mailed to other possible right-of-way users in the proposed construction area; the letter shall serve to notify other users that application is being made to Highlands County for a Utility Permit and asking that both the applicant and the County Engineer be notified whether or not other users have facilities in the proposed construction areas with which the proposed construction might be in conflict. Any objection to the proposed construction by another UAO must be forwarded to both the County Engineer and the applicant within 7 working days of the applicant's notification letter. Such objections must be specifically described.

d. Plans Preparation by Others: Plans and drawings not prepared by employees of the UAO or persons under contract to the UAO and under the immediate supervision of UAO employees must be signed and sealed by a registered professional engineer and approved by the UAO.

e. MOT Requirement: Whenever utility installation, adjustment or maintenance activity will affect the movement of traffic or traffic safety, the UAO shall implement a traffic control plan and utilize traffic control devices as necessary to ensure the safe and expeditious movement of traffic around the work site and to ensure the safety of the utility work force in accordance with the *Manual on Uniform Traffic Control Devices (MUTCD)*, and the Florida Department of Transportation's *Roadway and Traffic Design Standards (Index Series 600)*.

f. Attachments to Structures: For attachment to structures, the application shall include as an exhibit, all applicable construction plans and specifications for the accommodation of the utility. Plans for attachments to structures must be prepared, signed and sealed by a registered professional engineer, licensed by the State of Florida.

g. Corporation Requirement: When the permittee is a corporation or a public body, the permit must have a corporate seal and must be attested to by the corporation secretary or by the empowered public official, unless a current waiver of corporate seal and attestation by the secretary or by the empowered public official is on file with the State Utility Office, State of Florida, Tallahassee, and so noted on the permit. The State Utility Office will, upon request, furnish instructions and forms for waiver of corporate seal to a corporation. This waiver will be recognized by the County.

h. Proprietorship Requirement: When the applicant/permittee is the owner of the utility, which is not a corporation, then his signature must be witnessed by two persons whose signatures must likewise be on the permit. All signatures must be original. The names of all persons signing the permit application must be typed or printed directly below their signatures.

Paragraph 004. Processing:

a. The applicant shall submit 3 originals, prepared as described in Paragraph 003 of this part, to the office of the County Engineer for review and processing.

b. Each permit shall be processed in an expeditious manner in order to minimize any unnecessary delays for the applicant. The County Engineer's office will notify the applicant if processing is expected to exceed 10 working days.

c. Upon completion of the permitted utility construction, the applicant shall notify the County Engineer's office within 48 hours. The UAO or applicant to which the permit is issued has the responsibility to insure that all construction is performed and completed according to the approved permit and accompanying drawings. Failure to perform satisfactory construction may result in the County's not issuing additional permits to the applicant until deficiencies are corrected.

Paragraph 005. Installations Requiring Utility Permits: Unless specifically provided for under Part D, *Blanket Utility Service Drop Permits*, or Part E, *Blanket Utility Maintenance Permits* of this section, the following installations will require Utility Permits:

a. all underground installations and all overhead lines and crossings;

b. all lines crossing the right-of-way;

c. all additional facilities when:

1) it is necessary to place a pole within the right-of-way on the opposite side where there is not an existing pole line;

2) it is necessary to place a pole adjacent to a buried cable where the existing permit does not include a pole line; and

3) it is necessary to place a pole beyond the limits of an existing approved pole line; for purposes of this provision, the limits of an existing approved pole line shall be the distance from the edge of the pavement (or traveled way) to the approved pole line plus a maximum of 10% of that distance, but still within the right-of-way and no closer to the edge of the pavement;

d. all above-ground facilities placed in connection with underground installations when not included in the original permit; these include marker poles and riser poles, including pole mounted telephone closures for test or splice purposes; these poles and closures shall be located in accordance with applicable criteria in FDOT's *Roadway and Traffic Design Standards (Index Series 700)*;

e. installation of a complete street or highway lighting system including installation on existing poles where the existing poles are there by virtue of a permit;

f. installation of a new pole within the right-of-way to accommodate a private or area light regardless of the direction of the light pattern;

g. where existing facilities are to be relocated permanently to another location within the right-of-way, whether caused by a betterment program of the right-of-way user, or by road construction; and

h. improvements or betterments requiring a physical change of existing facilities.

Paragraph 006. Installations Not Requiring Utility Permits:

a. The following installation will not require utility permits provided the UAO is a holder of a current Highlands County Blanket Utility Service Drop Permit:

1) service drops or span guys emanating from and/or attached to poles covered by an existing permit, including those crossing roadways; and

2) underground service connections provided that they do not cross or begin in the pavement, and trenching is at a right angle to the pavement; however, notice will be

given to the County Engineer prior to construction in all instances, and the permittee shall notify all known underground UAO's of the pending excavation at least 48 hours in advance;

b. The following installation will not require utility permits provided the UAO is a holder of a current Highlands County Blanket Utility Maintenance Permit:

1) any new poles to be placed within an existing permitted pole line as established in accordance with Paragraph 005, c, 3) of this part;

2) routine maintenance or minor alterations such as changes in communications cables, transformer capacity, wire size of secondary circuits and primary circuits of a 1 mile segment or less of an existing utility installation;

3) temporary relocation as directed by the County Engineer during road construction projects; and

4) insertion or realignment of any utility facility in an existing conduit or pipeline made by the permitted UAO provided there is no pavement cutting; the UAO shall give 24 hours notice, identify which permit is affected and submit "as built" plans to be attached to the affected permit.

Note: The permittee shall give 24 hours notice to the County Engineer's office prior to any construction or excavation.

Part D: Blanket Utility Service Drop Permits

Purpose of Permit: When approved and issued to the UAO, the Blanket Utility Service Drop Permit authorizes the construction and maintenance of service drops to provide customer service without individual applications for the period October 1 through September 30 of each year. The fee will be as established by the Board of County Commissioners. By accepting the permit, the UAO binds itself to the requirements of the following 12 general conditions and 8 specific conditions:

a. General Conditions:

1) The construction and maintenance of such utility shall not interfere with the property and rights of a prior occupant.

2) All work shall be done in keeping with standards of the County Engineering Department and subject to the approval of the County Engineer.

3) All materials and equipment shall be subject to inspection by the County Engineer.

4) During construction all safety regulations shall be observed and the County shall be relieved of all responsibility from damage of any nature arising from this permit.

5) All County and State property shall be restored to its original condition as far as practical.

6) All construction shall conform to the standards and requirements of this section. If at any time during the utility construction/maintenance, the County Engineer finds that the permit conditions have been violated, the County Engineer may issue an immediate *Stop Work Order*. The *Stop Work Order* shall be in effect until the operation is brought into compliance with the permit. Failure to perform satisfactory construction may result in the County's not issuing additional permits to the applicant until deficiencies are corrected.

7) The attached sketch covering details of this installation is made a part of the permit.

8) It is expressly stipulated that the permit is a license for permissive use only and that the placing of facilities upon public property pursuant to this permit shall not operate to create or to vest any property right in said holder.

9) Whenever necessary for the construction, repair, improvement, alteration, or relocation of all, or any portion of said road or street as determined by the County Engineer, any or all of said poles, wires, pipes, cables or other facilities and appurtenances authorized hereunder, shall be immediately removed from said road or reset or relocated thereon, as required by the County Engineer and at the expense of the holder.

10) The permittee shall complete any construction commenced under the terms of this permit within 60 working days.

11) Applicant declares that prior to commencing work under this application he will ascertain the location of all existing utilities, both aerial and underground, and furnish due notice of proposed work to each utility involved.

12) It is understood and agreed that the rights and privileges herein set out are granted only to the extent of the County's right, title and interest in the land to be entered upon and used by the holder and the holder will at all times assume all risk of and indemnify, defend, and save harmless Highlands County from and against any and all loss, damages, cost or expense arising in any manner on account of the exercise or attempted exercises by said holder of the aforesaid rights and privileges. During construction, all safety regulations of the Florida Department of Transportation shall be observed and the holder must take such measures, including placing and display of safety devices, as may be necessary in order to safely conduct the public through the project area.

b. Specific Conditions:

1) The permit authorizes service drops from existing non-permitted lines or cable where construction can be performed without placing additional poles or terminals in the right-of-way. Parallel construction (of service drops only) is permitted. Water and sewer connections are permitted, but mains may not be extended.

2) When service drops are made from a previously permitted line or cable, additional poles or terminals may be placed in the right-of-way within the pole or cable lines as defined in this section to facilitate the connection. However, additional poles or terminals may not be placed beyond the original permit limits in any direction. Parallel construction is permitted, but only within the limits of the original permit and only for the purpose of making a service drop. Water and sewer connections are permitted, but the mains may not be extended beyond the limits of the original permit.

3) The permittee accepts road maintenance responsibility for any underground crossing for a period of 36 months from the date of construction.

4) All former State secondary roads (numbered roads) and those roads designated as collectors or arterials by the County's Comprehensive Plan, as amended, must be crossed using the "Jack and Bore" method and a casing left in place under the road.

5) No open road cuts are authorized by this permit.

6) The placing of additional poles or terminals within the right-of-way for any reason other than to facilitate a service drop is not authorized by this permit.

7) All disturbed areas within the public right-of-way shall be restored to its original configuration.

8) All construction shall conform to the attached sketch and the most current edition of *Manual of Uniform Standards for Design, Construction and Maintenance of Streets and Highways* prepared by the Florida Department of Transportation.

Part E: Blanket Utility Maintenance Permits

Purpose of Permit: When approved and issued to the UAO, the Blanket Utility Maintenance Permit authorizes the maintenance of existing utility construction within County rights-of-way without individual applications for the period October 1 through September 30 of each year. The fee will be as established by the Board of County Commissioners. By accepting the permit, the UAO binds itself to the requirements of the following 11 general conditions and 6 specific conditions:

a. General Conditions:

1) The maintenance of existing utility construction shall not interfere with the property and rights of other occupants.

2) All work shall be done in keeping with standards of the County Engineering Department and subject to the approval of the County Engineer.

3) All materials and equipment shall be subject to inspection by the County Engineer.

4) During construction all safety regulations shall be observed and the County shall be relieved of all responsibility from damage of any nature arising from this permit.

5) All County and State property shall be restored to its original condition as far as practical.

6) All construction shall conform to the standards of this section. If at any time during the operation, the County Engineer finds that the permit conditions have been violated, the County Engineer may issue an immediate *Stop Work Order*. The *Stop Work Order* shall be in effect until the operation is brought into compliance with the permit. Failure to perform satisfactory maintenance may result in the County's not issuing additional permits to the applicant until deficiencies are corrected.

7) It is expressly stipulated that the permit is a license for permissive use only and that the placing of facilities upon public property pursuant to this permit shall not operate to create or to vest any property right in said holder.

8) Whenever necessary for the construction, repair, improvement, alteration, or relocation of all, or any portion of said road or street as determined by the County Engineer, any or all of said poles, wires, pipes, cables or other facilities and appurtenances authorized hereunder, shall be immediately removed from said road or street or reset or relocated thereon, as required by the County Engineer and at the expense of the holder.

9) The permittee shall complete any construction commenced under the terms of this permit within 60 working days.

10) Applicant declares that prior to commencing work under this application he will ascertain the location of all existing utilities, both aerial and underground, and furnish due notice of proposed work to each utility involved.

11) It is understood and agreed that the rights and privileges herein set out are granted only to the extent of the County's right, title and interest in the land to be entered upon and used by the holder and the holder will at all times assume all risk of and indemnify, defend, and save harmless Highlands County from and against any and all loss, damages, cost or expense arising in any manner on account of the exercise or attempted exercises by said holder of the aforesaid rights and privileges. During construction, all safety regulations of the Florida Department of Transportation shall be observed and the holder must take such measures, including placing and display of safety devices, as may be necessary in order to safely conduct the public through the project area.

b. Specific Conditions:

1) Maintenance is defined as the repair or replacement of poles, wires, pipes, cables, terminals or other facilities and appurtenances in the same position and of approximately the same size. Construction resulting in an increase in utility capacity is not considered maintenance.

2) The maximum time that any excavation may be left open for maintenance is one week. When the maintenance will require an open excavation for a longer length of time a regular Utility Permit which explains the necessity, complete with detailed drawings, must be secured.

3) Maintenance of both the permitted and non-permitted utility construction, including service drops, must conform to the requirements of this permit.

4) Emergency repair of utilities under both paved and unpaved roads is authorized by this permit. These emergency repairs include open cutting a paved road or trenching across an unpaved road when necessary, but the permittee will first make a diligent effort to notify the County Engineer of the emergency. All excavation shall be covered before leaving the work site. No notice is required for work outside the traveled way.

5) The permittee will repair the road as directed by the County Engineer and accept road maintenance responsibility for the repair of the cut or underground crossing for a period of 36 months from the date of repair.

6) All disturbed area within the public right-of-way shall be restored to its original configuration.

Part F: Accommodation Standards

Paragraph 001. Basic Requirements:

a. The basic requirements governing location of utility installations will be as shown in Part J, *Location Criteria for Utilities*, of this section. **The primary concerns in the design and location of utility installations are the protection of the road facility and the safety of the road user**; the design of the utility installation shall give full consideration to these concerns and to economic factors, and it shall employ sound engineering principles.

b. For the installation of overhead utilities, one side of the right-of-way is usually reserved for communication lines and the other side is reserved for power lines. In situations where underground and overhead utilities occupy the same side of the roadway, the overhead facility should be placed on the outside of the underground facility to provide the maximum possible clear roadside recovery area. In cases where more than one UAO proposes an aerial installation on the same side of the right-of-way, a joint-use arrangement must be agreed to by the UAOs.

c. Only single pole lines shall be permitted on each side of a County right-of-way. This requirement does not prohibit a single UAO from occupying both sides of the right-of-way when there are no objections from other UAOs, when proper justification is provided to the County, and when there is only one pole line on each side of the right-of-way.

d. A second pole line to support roadway illumination may be allowed on one side where the need for roadway illumination is properly documented, and provided traffic safety requirements are met.

e. In cases where the UAOs cannot agree on use of the right-of-way, the dispute shall be referred to the County Engineer whose determination shall be final. Either UAO may appeal the County Engineer's decision to the Board of Adjustment as provided for in Article Five, Section Three, Part G, *Appeals*, of these regulations.

f. Scenic enhancement shall be considered on permit applications. The type and size of utility facilities and the manner and extent to which they are permitted along or within County rights-of-way can materially alter the scenic quality, appearance and view of the roadside and adjacent areas. For these reasons additional controls are applicable in certain areas such as recreation areas, public parks, residential subdivisions, and rights-of-way adjacent to these developments and facilities.

g. New underground utility installations may be permitted within such lands where they do not require extensive removal or alteration of trees or other natural features visible to the road user or do not impair the visual quality of the lands being traversed. New aerial installations are to be avoided at such locations where there is a feasible and prudent alternative to the use of such lands by the aerial facility. Exceptions will be considered only where:

1) other locations are unusually difficult and unreasonably costly, or are more desirable from the standpoint of visual quality;

2) underground installation is not technically feasible or is unreasonably costly; or

3) the proposed installation can be made at a location and will employ suitable designs and materials which give adequate attention to the visual quality of the areas being traversed.

h. All new or relocated longitudinal underground utility facilities shall be placed outside the toe of the front slope except where no other safe and practical alternatives are available.

i. When encasement is used and designed as a pressure vessel, the encasement pipe will have strength equal to or exceeding the carrier pipe; however, where the casing is not a pressure vessel, the casing pipe shall be capable of supporting a minimum external load of 2,200 PSF at 30 inches minimum depth. Gas and liquid petroleum pipelines shall be designed and constructed to conform with 49 CFR, Part 192, *Transportation of Natural Gas by Pipeline* or Part 195, *Transportation of Liquids by Pipeline*, as applicable. The maximum allowable operating pressure for gas mains must be shown on permit applications.

j. When an emergency condition warrants immediate action by the UAO, such as a break in a fluid or pressure line or any situation creating a danger to the public welfare, the UAO should proceed immediately with repairs necessary to safeguard the public. The County Engineer shall be notified as soon as possible but no later than the next scheduled working day. All such final repair work to the County's facilities must be approved by the County Engineer. If it is the type of work that would normally require a permit, the UAO will be required to prepare and submit a permit application after the work is completed. In any case, restoration of the right-of-way will be in accordance with all applicable County requirements and at the expense of the UAO.

Paragraph 002. Crossings:

a. General: Crossings under existing pavement will be made without cutting the pavement except as provided for in Subparagraph c, *Pavement Cutting*, of this paragraph. Underground crossings made by methods other than by open cutting and direct burial shall conform to the provisions of Part L, *Jacking and Boring*, of this section. The proposed means of placing the pipe shall be stated on the permit application, and conditions which are generally unsuitable or undesirable for pipeline crossings shall be avoided. Clearance requirements for both aerial and underground crossings are given in Part J, *Location Criteria for Utilities*, of this section.

b. Miscellaneous:

1) When casings are used for crossings of flammable gases or fluids, the casing should extend to the toe of the front slope and shall be vented at or outside of the right-of-way line. Welded steel pipelines transmitting gas or liquid petroleum may be installed without encasement provided such pipeline conforms with 49 CFR, Part 192, *Transportation of Natural Gas by Pipeline*, or Part 195, *Transportation of Liquids by Pipeline*, as applicable. The pipeline shall be designed to withstand internal design pressures and the superimposed loads of the roadway and traffic.

2) Casing will be required for crossings of underground utilities where the carrier conduit is of insufficient strength due to composition or depth of cover.

3) Casing will be required for crossings jacked under existing pavement where the carrier is of composition such that it cannot be jacked.

4) Where it is necessary to place aerial crossings which will interfere with traffic, careful planning of work with regard to the safety of vehicular traffic is mandatory. No temporary supports will be allowed closer than the minimum clearance under Part J of this section, unless incorporated with approved barrier systems or other approved work zone traffic control devices.

a) No work of this type will commence without a 24 hour prior notification to the County Engineer and the Highlands County Sheriff's Department.

b) Traffic control shall be in accordance with the *Manual on Uniform Traffic Control Devices*, FDOT *Roadway and Traffic Design Standards (Index Series 600)*, FDOT *Standard Specifications for Road and Bridge Construction* and recommendations of the County Engineer.

c) Flaggers will be posted to warn oncoming motorists during the entire crossing operation.

d) Such temporary construction shall be completed in the minimum amount of time possible as approved in the permit.

5) Where the applicant wishes to connect any surface or subsurface (stormwater) drainage system to the County road system, the applicant shall apply for a permit to allow this connection using the procedures of Article Five of these regulations. The applicant shall provide for both water quality and water quantity.

c. Pavement Cutting:

1) Open cutting of existing pavement on County right-of-way generally will not be allowed if any of the following conditions exist:

a) the pipe to be placed under the road is 6 inches or less in diameter;

b) the road at the proposed cut location has a minimum 5 inches shellrock or limerock base;

c) the road is a former State secondary road that has been transferred to the County for maintenance (numbered road, i.e., C-621); or

d) the road is rated good to fair under the County's current road classification policy.

2) The County Engineer may grant an exception to 1) above, and approve open cutting where any of the following exceptions are found to exist:

a) the road is on an approved resurfacing list and is scheduled to be resurfaced within 12 months following the date of the proposed cut; or

b) the County Engineer determines that existing field conditions prohibit use of the jack and bore method because of certain conditions such as subsurface obstructions, limited space for jacking, high water table, substandard roadway surface, or alternatives are unreasonably costly to the public.

3) Where open cutting is approved, the County Engineer may require that the permittee overlay the complete width of the road with a minimum of one inch of Type S-III asphalt for a distance of 25 feet on each side of the open cut. The applicant shall

submit roadway restoration plans, signed and sealed by an engineer registered in Florida, providing details of the proposed cut, backfill, and overlay, all of which are in compliance with the requirements of these regulations. The engineer shall submit an "As Built" and a Certificate of Completion of the road work.

4) In any analysis of a request for open cutting, primary considerations will be given to the safety and convenience of the public. The applicant shall provide written justification for approval of open cutting.

5) Before traffic is to be placed on a cut area, a temporary patch with a smooth all-weather surface must be provided.

6) A County inspector must be on site when an open cut permanent repair is being made.

7) All open cut road repairs shall be maintained by the permittee for a period of 36 months from the date the repair is completed.

8) Open cutting of existing paved driveway connections will be permitted, provided that for the convenience of the users, the users are notified and pavement is restored in accordance with this section. Notification may be accomplished by the use of a door-hanger type notice, or onsite signage as appropriate and approved by the County Engineer.

9) Where an open road cut is made under the emergency repair provisions of this section of these regulations, the UAO shall make a diligent effort to notify the County Engineer of the emergency. All excavation shall be covered before leaving the work site. Where such emergency open road cut is made, the applicant shall make temporary and permanent repairs according to the requirements of this section and submit "As Built" plans and a Certificate of Completion signed and sealed by an engineer registered in Florida providing details of the emergency cut, backfill, and overlay, all of which shall be in compliance with the requirements of these regulations. Failure of the UAO to make the road repairs and submit required plans and certificates may result in the County's withholding future utility permits until the repairs are completed.

Paragraph 003. Attachment to Structures:

a. General:

1) Highlands County may consider allowing attachment to structures to accommodate utility construction under the terms set forth in this paragraph. However, if any of the following conditions would be created by the attachment, the attachment will not be approved:

a) an obvious hazard to the public will be created;

b) the integrity of the structure will be affected;

c) inspection and maintenance operations of the structure will be unreasonably hindered; or

d) aesthetics of structures which are located in aesthetically sensitive environments will be adversely affected.

2) Details of utility attachments including loads, attachment positions, detail dimensions, material type, plans, specifications and corrosion certification forms will be prepared by or prepared under the responsible supervision, direction and control of a qualified Professional Engineer registered in the State of Florida, unless exempt from registration under Chapter 471, Florida Statutes. These plans and specifications shall be signed and sealed by the engineer, and the information shall be suitable for inclusion in the Florida Bridge Management Inventory System (BMIS) file.

3) Permit applications for installation onto existing structures shall be reviewed by the County Engineer. Development of construction plans for the accommodation of utilities onto structures to be constructed shall be the responsibility of the designer and not Highlands County. All details shall comply with the requirements of these regulations.

b. Responsibility: The UAO is totally responsible for the design, safety, inspection and maintenance of its facilities and supporting hardware accommodated onto County owned bridge structures. If the County determines that the utility will be accommodated, the County Engineer has the responsibility to determine that the UAO has complied with the requirements of these regulations and that the structure will support the utility in addition to other loads in a safe manner, and that accommodation of the utility will not significantly reduce the live load capacity of the bridge. The County Engineer is the final authority in all disputes that may possibly develop. The UAO is advised to review the FDOT's 5 year Work Program and the County's current Capital Improvements Plan to determine if an existing bridge is scheduled to be replaced, rehabilitated or widened.

c. Criteria: Where attachments are permitted, the criteria listed below must be met as conditions for issuing the permit:

1) Designs for utility attachments shall be in compliance with all applicable federal, State, and local regulations, rules, and Codes.

2) No construction or maintenance will be accomplished upon a structure without a written approval from the County Engineer or his designee. The UAO or its contractors working within the County's right-of-way shall comply with the requirements of these regulations and with FDOT's *Standard Indexes*.

3) Utilities attached to bridge structures shall maintain a vertical clearance at least equal to that of the structure.

4) Utility cables or conductors shall be encased in conduit so that maintenance can be accomplished from the ends of the structure.

5) All electrical cables 2 KV and above shall be shielded cable with an insulated concentric neutral and be grounded at one end of the bridge.

6) Metallic pipes or conduits shall be electrically insulated from the structure by redundant insulators. Metallic pipes or conduits shall be supported by insulating pipe roller or specifically designed sliding or elastomeric bearings. Insulating pipe rollers (rollers constructed from dielectric material) shall be used unless the loads will permanently strain the roller material beyond the elastic limit.

7) All utilities shall be isolated and insulated from the structure to ensure that corrosion cells do not develop because of the attachment of the utility.

8) Utility attachments should be designed to pass through the backwall of the abutment when practicable.

> Pipe may be routed around the abutment when the abutment backwall design prohibits a pass through due to dimensional constraints, thickness, material composition or reinforcement. The permittee will consult with the County Engineer or his designee concerning the County's requirements at each site. Also see Subparagraph g. of this paragraph concerning thermal expansion.

9) All pressure lines attached to bridges shall have shut-off systems so that the pipe segment at the bridge can be isolated.

10) All lines carrying hazardous material (flammable, toxic or corrosive) shall be designed to be in compliance with the U.S. Department of Transportation Pipeline Safety Standards 49 CFR, Part 192 or Part 195, as applicable, for a class four location. Only steel pipe with welded or flanged joints and conforming to AOPI Standards shall be used.

> Accommodation of pipes transmitting hazardous materials with line pressures in excess of 250 psi should be reviewed in light of the added safety concerns. A 250 psi gage pressure is the suggested upper limit of line pressure for attachment to bridge structures. When a bona fide hardship exists, consideration may be given to accommodating transmission lines with pressures exceeding 250 psi.

d. Location: Utilities should be located underneath the cantilever portion of the bridge structure deck overhang. If unique circumstances exist, attachment to the deck underside at other locations could be considered. Under no circumstances should any UAO be allowed to attach onto bridge girders. Locating the utility under the deck overhang is the best location because it minimizes interference with bridge inspection and future girder maintenance.

e. Materials: Only materials that are listed on the Qualified Products List by the FDOT's State Materials Office in Gainesville, Florida, shall be used for utility conduit, pipe coatings and concrete repairs on bridges. Selection of material type is governed by project location. Conduits shall be supported so that long term deflection between supports, when fully loaded, shall not exceed 5/8 inch. Examples of approved conduits for utility cables or conductors for outdoor exposure locations are listed below.

1) **Fiber Reinforced Epoxy (FRE) Rigid Conduit** which is listed by Underwriters Laboratories Files E-53373, E-78442 and conforms to the National Electrical Code, Section 346.1.

2) **Polyvinyl Chloride (PVC) Rigid Conduit** schedule 40 or 80 which conforms with Underwriters Laboratories Section 651, the National Electrical Code Section 347 and National Electric Manufacturers Association TC-2. For conduit supporting only communications cables, Polyvinyl Chloride "D" duct which meets or exceeds National Electric Manufacturers Association TC-10 is acceptable.

3) All utility supporting hardware shall be constructed of the same metal material. No combinations of dissimilar materials will be allowed (threaded inserts included) unless the materials are separated by flanged bushings constructed from non-conductive materials. Supporting hardware is defined as any and all threaded inserts, bolts, nuts, washers, hangers, or brackets. Approved materials for supporting hardware are listed below.

a) Alloy 6061 T6 Aluminum; 316 Stainless steel; hot dipped galvanized steel in accordance with ASTM Specifications, Structural Shapes A-123; Hardware A-153; Bolts A-307, or other equal materials as determined by the FDOT State Corrosion Engineer.

b) All support metal devices, except stainless steel, shall have a minimum thickness of 3/16 inch. The use of threaded inserts cast into the concrete or retrofitting with adhesive anchors are required to attach the utility to the bridge deck. The use of expansion anchors is prohibited.

f. Corrosion Mitigation: All attachments to bridge structures shall be designed to minimize any danger of corrosion activity by stray current flow into the structure from the utility. The utility shall be encased in a conduit constructed of nonconductive material or shall be separated from the supporting hardware by an insulating roller or other nonconductive material. All bolts entering the bridge structure should be separated from supporting brackets by the use of flanged insulating bushings or redundancy accomplished by other means.

1) Metallic utility pipes shall be supported on insulating rollers or other non-conductive material. Utility pipes transporting fluids and using mechanical joints shall be equipped with joint restraints. Use of pipe couplings, other than expansion couplings (expansion joints), shall be avoided on bridge structures.

2) If pipe couplings are used, restraint shall be provided to prevent pipe movement at the coupling and the pipe system shall be designed to restrict all movement to expansion couplings. All gas lines or other cathodically protected lines shall be equipped with both insulating joints and electrical test leads at both ends of the bridge.

g. Thermal Expansion: Methods to compensate for thermal expansion, expansion joints or expansion loops, shall be designed for all bridge structure utility attachments except those utility attachments onto structures with an overall length of less than 35 feet. The utility attachment shall transmit no longitudinal or thrust loads to the structure at the abutment. Loads caused by thermal expansion and transmitted to the bridge structure shall be minimized. The expansion method shall be engineered, detailed, and located on the plans when submitted for approval. Adequate supports shall be provided near expansion joints, equally spaced each side of and near to the joint, to assure proper alignment of the joint.

Expansion joint details shall indicate joint opening settings which compensate for temperature at the time of installation.

Part G: Special Requirements for Installation, Restoration of Right-of-Way and Maintenance of Utility

All right-of-ways shall be restored, as a minimum, to their original condition, in accordance with FDOT *Standard Specifications for Road and Bridge Construction* and these regulations, including temporary erosion control methods, and in a manner satisfactory to the County Engineer. Pavement restoration should be in accordance with the illustration, *Pavement Restoration Detail*, in this section. In the case of requirement conflicts, the most restrictive and/or stringent shall control. If the permittee fails to restore the right-of-way to the satisfaction of the County Engineer, the County Engineer may, at his option, repair the right-of-way and submit an affidavit of cost to the UAO or to the State's Attorney Office for collection. The following guidelines are established for this purpose:

a. All affected side drains, side ditches and storm sewers will be identified and referenced as to grade and location prior to construction.

b. At each open cut crossing, the backfill material shall be placed and compacted per FDOT *Standard Specifications for Road and Bridge Construction*, Section 125-8, and/or per special provision B1210000 (flowable fill). This requirement holds for embankment, subgrade and base. Density tests shall be made by a certified laboratory under the supervision of the permittee's engineer. A copy of all density test reports shall be furnished to the County Engineer.

c. Drawings showing proper replacement must accompany the permit application when open cutting is allowed. Written documentation shall be required showing why deviation from FDOT and/or County requirements should be allowed.

d. Temporary patches will be maintained to provide a smooth, all weather surface at all times. Temporary patches shall be replaced by permanent patches as soon as all other installation work is completed. The County Engineer will be notified 48 hours prior to application of the

permanent patch. The permittee will be required to maintain the patch for a period of 36 months after the replacement is completed.

e. Shoring will be required to conform with the *Florida Safe Trench Act* requirements where necessary to protect existing pavement, structures, and foundations.

f. Excavated material in excess of the quantity for backfill in County rights-of-way and considered usable by the County Engineer, shall be hauled by the permittee, at his cost and expense, a maximum distance of 3 miles from the trench excavation and stockpiled in those areas as directed by the County Engineer. The County Engineer may also, at his discretion, require the permittee to assume ownership of the excess material and dispose it offsite. Excess excavated material considered unusable by the County Engineer shall be disposed of at the permittee's expense unless otherwise directed by the County Engineer. This subparagraph does not apply to materials contaminated with hazardous waste or pollutants.

g. All correspondence regarding construction procedures will be handled directly with the permittee and not through the permittee's consultants, contractors or subcontractors.

h. At such locations where County signs and/or reflectors will interfere with proposed construction, the permittee will notify the County Engineer 48 hours in advance of starting work. All signs and reflectors will be moved or relocated by County forces or as designated on the permit. **Any signs or reflectors damaged, destroyed, removed or relocated will be replaced by the County at the expense of the permittee.**

i. All trees and shrubbery damaged or disturbed during construction shall be replaced by the permittee at his expense as directed by the County Engineer. Any plants that have been planted by property owners shall be removed and replaced to the satisfaction of the County Engineer. All debris shall be removed by the permittee at his expense.

j. Sodding and, when approved by the County Engineer, grassing and mulching operations shall begin within 3 weeks after utility is installed except in cases of front and back slopes which shall be done immediately. All requirements regarding sodding, seeding and mulching shall be in accordance with FDOT *Standard Specifications for Road and Bridge Construction*. Any yard or part of right-of-way in front of private property that has a grass mat will be resodded with like sod, or otherwise to the satisfaction of the County Engineer. The permittee shall maintain that portion of the right-of-way affected by the permit installation until acceptable vegetation is established.

k. The permittee shall immediately cease operations and notify the County Engineer, or if on a construction project, the Project Engineer, if substances or material suspected of being hazardous, asbestos, oil of any kind or in any form, gasoline, pesticides, ammonia, chlorine, and derivatives thereof, excluding liquified petroleum gas, are discovered in the portion of the right-of-way where work is authorized by the permit.

The County shall notify the permittee of the suspension or revocation of the permit until contamination assessment and remediation under Rule Chapter 17-70 FAC, has

progressed to a state that all environmental regulatory agencies having jurisdiction have approved the site of the contamination for resumption of construction and utility work. At that time the County will notify the UAO and provide an opportunity for the UAO to obtain an amended permit subject to any conditions imposed by said environmental regulatory agencies. The UAO shall comply with all conditions of the amended permit.

Part H: Maintenance of Vegetation

Paragraph 001. General: Maintenance of vegetation includes any method or technique to alter or regulate the normal growth process of vegetative plant materials within the County rights-of-way. Techniques of manual or mechanical methods or the use of herbicides or plant growth regulators may be allowed on a site specific basis.

For the purpose of this section, vegetation is defined as all trees, shrubs, vines, legumes, grasses or other plant material existing within the County rights-of-way. Safety, aesthetics and the preservation of desired vegetation are prime considerations in the maintenance of vegetation. Vegetation maintenance will not detract from the natural beauty of the roadside and shall not provide or appear as an abrupt change in roadside vegetation conditions. Except for tree trimming in Paragraph 002 of this part, the removal, cutting, marring, defacing or destruction of any vegetation within County rights-of-way is prohibited unless specifically authorized by a utility permit or otherwise by the County Engineer. A 48 hour minimum notice shall be given to the County Engineer prior to the performance of operations.

Paragraph 002. Tree Trimming: Chapter 337.405, F.S., which regulates the removal or damage to trees in State rights-of-way is hereby adopted to regulate such removal or damage to trees in County rights-of-way, and this paragraph is intended to implement the rule as it shall apply to County rights-of-way. The trimming of trees where required to ensure and maintain the safe operation of utility facilities is authorized by a County Utility Maintenance Permit, providing such trimming is performed in accordance with recognized and approved principles of modern arboriculture methods with emphasis on tree health. Such trimming shall not damage trees and shrubs that are intended to remain in the work area. All waste and debris associated with the trimming shall be removed from County rights-of-way unless otherwise approved in writing by the County Engineer.

Paragraph 003. Removal of Vegetation: Manual or mechanical cutting of vegetation will be permitted on a routine or periodic basis, provided that the limits of work do not extend beyond the limits necessary for the proper maintenance. Grasses shall be mowed or cut at a height and in a manner that promotes low growing ground cover species. Areas dominant in brush may be cut as close to the ground line as practical. Mowing equipment shall be so equipped and operated in a manner to preclude the throwing of debris that would create a safety hazard. Brush cuttings or debris discharged into the routine maintained limits of the right-of-way shall be removed.

Paragraph 004. Chemical Control of Vegetation: The use of herbicides or plant growth regulators for the purpose of chemically maintaining vegetation may be approved by the County Engineer on a site or location specific basis. Authorization for chemical control will be considered on an individual basis and shall not be interpreted as authorization to extend beyond the specified

limits or the provisions of the work. All requests shall be submitted in a written proposal that outlines the extent of the proposed work, the type of herbicides or plant growth regulators including labels and material safety data sheets that are proposed to be used, and the intended timing and techniques of application. The UAO's applicator shall secure all necessary permits from jurisdictional State, federal, and local agencies, and copies of these permits shall be submitted to the County Engineer along with the request for the use of chemical control.

a. When the use of herbicides is permitted for control of vegetation, liability for damage to adjacent property and the County's right-of-way rests solely and entirely with the UAO. The use of herbicides will be authorized only if they are applied as a part of a definite scheduled program intended to control undesirable tree and brush growth.

b. In the initial application browning of vegetation will be permitted, however, subsequent applications on trees and brush should use individual stem, basal bark or stump treatments. The initial application will be followed by periodic, selective or spot treatments until undesirable tree and brush growth has been replaced by low growing ground covers. No application will be permitted on vegetation greater than 3 feet in height that will create an undesirable appearance or undesired browning or color change of vegetation. Special height considerations may be given to locations where physical man-made obstructions preclude or prevent the reduction of vegetation to the 3 foot height. In no case will applications be allowed at a height of greater than 6 feet. Vegetation that is to be maintained chemically shall be treated while in the first growing season after mowing or before it has reached a height of 3 feet. Locations with exceptional rapid plant growth conditions may be exempted provided the dead plant material is removed following successful performance of the herbicides. Herbicide applications that indiscriminately kill grass or other desired vegetation will not be permitted. Uncontrolled or indiscriminate use of highly residual or non-selective herbicides or the use of restricted use herbicides will not be permitted. Application of herbicides that are harmful to existing grasses, legumes or other low-growing ground cover plants will not be allowed on:

1) roadway cut or fill slopes where such vegetation has been planted or has become established naturally;

2) roadway shoulders and slopes between the pavement surface and the established County mowing limits; and

3) other areas where it is evident that mowing is done as a part of routine roadside maintenance or locations where such applications would be detrimental.

c. Applications that are conducive to the non-selective control of vegetation that will produce undesired bare ground will not be permitted. Individual stem and solid stream treatments that result in spot or narrow band control may be permitted provided that the field conditions and adjacent land use are compatible to such treatments.

d. Where specific plants have been selected and preserved, they shall be protected against damage by the herbicide treatment of adjacent vegetation. Careless or excess applications will

not be tolerated. Special precautions must be taken with all herbicide applications to ensure that they are made in accordance with all environmental considerations and associated regulations.

e. Personnel shall be trained, experienced, and competent in the particular type of work they are engaged in and licensed according to applicable law. Only experienced personnel having a thorough understanding of herbicide application and the technical complexities in this field of expertise are to be allowed to apply these chemicals.

f. A complete copy of the records detailing the dates, location, materials, rates, weather and other relevant data shall be maintained by the UAO and provided to the County Engineer upon request.

g. Authorization to control vegetation chemically must be secured in advance, in writing, with 48 hour minimum notice given to the County Engineer prior to the application of chemicals. Misuse or unsatisfactory performance results or failure to comply with these provisions will be sufficient cause for the denial of future use of chemicals for vegetation control.

Part I. Maintenance of Traffic

Paragraph 001. Background:

a. Whenever work is done on or near the roadway, drivers are faced with changing and unexpected traffic conditions. These changes may be hazardous for drivers, workers, and pedestrians unless strict protective measures are taken.

b. Since drivers do not make a distinction between construction, maintenance or utility operations, proper traffic control and safety are needed for all types of work.

c. Part VI of the *MUTCD* is the national standard for all traffic control devices used during construction, maintenance and utility activities. Florida has adopted this manual as the State Standard to be used on all streets and highways open to the public. As supplements to this Manual the FDOT publishes *Roadway and Traffic Design Standards (Index Series 600)* and the *Standard Specifications for Road and Bridge Construction.*

Paragraph 002. Traffic Control Plan: When a permit for utility installation, adjustment, or maintenance activity is required under Part C of this section, a proposed traffic control plan shall be submitted with the permit application. Site condition changes that warrant a change to the proposed MOT plan will require the UAO to notify the County Engineer. The proposed and final traffic control plan shall be designed in accordance with the standards set forth in the *MUTCD*, the FDOT *Roadway and Traffic Design Standards (Index Series 600)*, and the FDOT *Standard Specifications for Road and Bridge Construction.*

Paragraph 003. Training and Job Control: The UAO is responsible for insuring that each person supervising the selection, placement and maintenance of traffic control devices in utility work zones

shall be certified by attending a FDOT approved MOT training course or the UAO's approved training course through work zones. When changes are made to the *MUTCD*, *Roadway Design Standards (Index Series 600)* and/or the *Standard Specifications for Road and Bridge Construction*, the UAO will update its training program to reflect such changes. UAOs will furnish the County Engineer with a list of all personnel in its company certified in MOT when requested.

Paragraph 004. Non-Compliance: Upon notification by the County Engineer of deficiencies in the Traffic Control Plan or other matters involving traffic safety, the permittee shall immediately make improvements as directed by the County Engineer. Should the County Engineer deem conditions to be such that imminent danger is present, all work shall cease automatically until the conditions are corrected.

Part J: Location Criteria for Utilities

The following location criteria for utilities shall be observed on all County roads:

a. Utility/Light Poles: See FDOT's *Standard Index No. 700, Design Criteria Related to Highway Safety.*

b. Parallel (Underground): Parallel underground installations require a minimum vertical clearance of 36 inches below top of pavement and 30 inches below existing unpaved ground including ditch grade. In rural areas, every effort will be made to locate utility facilities in areas other than between edge of pavement and toe of slope and as near to the right-of-way line as practical. Minimum depth requirement can vary if utility is buried beneath a sidewalk or bike path.

c. Crossing (Aerial): Aerial crossings are permitted and will have a minimum of 18 feet vertical clearance over the roadway. Other governmental agencies or codes may require a greater clearance for certain voltages. The greater clearance required prevails as the rule.

d. Crossing (Underground): Underground crossings require a minimum vertical clearance of 36 inches below top of pavement and 30 inches below unpaved ground line including ditch grade.

e. Operating Railroad Corridors: All utility location criteria shall be in accordance with the criteria set forth by the FDOT *Standard Application Package* for operating railroad corridor use and/or occupancy.

f. Airport/Airport Properties: All utility location criteria shall be in accordance with the criteria set forth by the airport jurisdiction or as provided in Chapter 333, Florida Statutes.

Part K. General Requirements

General requirements for utility construction in County rights-of-way are listed below.

a. Devices such as signal strain poles, fire hydrants, down guys, telephone load pedestals and other items whose construction and size would cause extensive damage to a vehicle if struck are to be located according to the standards for utility poles. See FDOT's *Standard Index 700* for location criteria.

b. For the purpose of this section, frangible base poles will be accepted if in accordance with FDOT's *Roadway and Traffic Design Standards*.

c. On projects where the 4 feet minimum offset would place the utility or other obstruction in substantial conflict with the sidewalk and in the case of power poles, would create an unreasonable conflict with requirements of the National Electrical Safety Code and other alternatives are deemed impractical, the minimum may be reduced to 2½ feet from the face of the curb. The permittee shall insure that a minimum 36 inch accessible route is maintained as per Section 553.48, Florida Statutes, and the requirements of the "Americans With Disabilities Act."

d. Where possible, excavation will not be allowed within 8 feet of the edge of the pavement. See Part L, *Jacking and Boring*, of this section.

e. Clearances for above ground parallel lines will be 16 feet minimum except where the utility line crosses a connecting side road in which case an 18 foot minimum shall be required. This criteria shall not be applied to a minor segment of an existing utility installation in such a manner as to result in misalignment of the installation or adjustment of the entire installation.

f. The roadside clearances for above ground utility facilities shall be consistent with those clearances applicable to other roadside obstacles on the type of highway involved, reflecting good engineering and economic considerations.

g. Where feasible and practical, luminaries should be attached to utility poles which otherwise meet the offset criteria, thereby eliminating unnecessary number of poles along roadway facilities.

h. Manholes shall be outside the traveled lanes, to the greatest extent possible. The manhole ring, cover and pad must support the traffic for the area where it is being constructed and be finished flush with the existing grade.

i. Out of service or deactivated underground utility facilities must be removed under the permit conditions, but may be permitted to remain in place provided no future operations of the County are affected, as decided by the County Engineer or his designee. As a condition of permit for such facility, the UAO shall submit and maintain survey records of their location and type of material. Such underground facilities shall be shown on utility relocation plans required by the County. The County reserves the right to require the UAO seeking to leave its deactivated underground facilities within the County right-of-way, to be responsible for any costs, claims, damage, or injury which result from said UAO's facilities and to enter into an Agreement for the same.

j. Deactivated underground gas lines shall be shown on the utility relocation plans and shall be deactivated in accordance with 49 CFR, Part 192 and the rules of the Public Service Commission.

k. Appurtenances:

1) should be aesthetically acceptable and in compliance with industry standards;

2) shall be placed so as to provide minimum interference to traveling public and road maintenance operations;

3) must not conflict with other existing facilities; and

4) shall be located as close to the right-of-way limits as practical.

l. If any utility relocation is necessary to provide entrance to the roadway from adjacent property, the relocation expense should be borne by the secondary permittee and the permittee shall not interfere with the rights granted to any prior permittee. (This provision does not apply to public designated right-of-ways connecting to County roads, i.e., other County roads, city streets, state parks). If a dispute arises, the relocation expense should be considered a matter between the property owner and the prior permittee. In the case of an appeal, the final location will be determined by the County Engineer whose decision may be appealed to the Board of Adjustment as provided in Article Five, Section Three, Part G, *Appeals*, of these regulations.

m. With the exception of utility or single pole appurtenances mounted 15 feet or higher above the ground, appurtenances larger than 8 cubic feet must have their location and size, in cubic feet, shown on the permit.

n. Underground appurtenances less than 30 feet from the edge of pavement, excluding those considered not in traffic areas of curb and gutter sections, shall be designed to carry traffic. Those located in non-traffic areas of curb and gutter sections and those located greater than 30 feet from the edge of pavement shall be designed to support the County's maintenance equipment. The minimum wheel load, underground appurtenances should be designed for is 16,000 lb. This value in no way guarantees the UAO that these appurtenances will not be subject to grater loads.

o. Installation of above ground appurtenances larger than 80 cubic feet and any size appurtenances which do not meet these guidelines must be submitted to the County Engineer.

p. All new or replaced underground facilities within the right-of-way shall be detectable.

q. The removal, encapsulation, or enclosure of materials containing asbestos may require a licensed consultant/contractor under Sections 455.301 - 455.309, Florida Statutes.

Part L. Jacking and Boring

Paragraph 001. Introduction:

a. Purpose: The purpose of this part is to expand and standardize the guidelines pertaining to underground utility crossings by methods other than open cutting. The guidelines contained herein are intended solely to prevent unnecessary failures and to provide sufficient detail to insure uniform application of the guidelines.

b. Scope: The guidelines set forth in this part are to regulate and control all aspects of underground utility crossings by jacking, driving, pushing, boring, tunneling, pulling, or combination thereof and other methods except open cutting or trenching. The guidelines established herein are to provide such regulation and control and are not intended to provide complete step by step instructions for a proper underground crossing operation. These guidelines do, however, specify a wide range of procedural precautions necessary to insure that the very basic, essential aspects of a proper crossing operation are adequately controlled. In all cases the ultimate success or failure of a crossing will depend upon the experience and skill of the permittee or permittee's contractor. Furthermore, the wide range of possibilities concerning job site conditions, economics and future technological improvements dictate that this part be used as a guide. However, strict adherence shall be required under specifically covered conditions outlined herein.

Paragraph 002. Material: All material used in the execution of work authorized by the Utility Permit shall be as described in this paragraph.

a. Encasement Material Including Material for Uncased Carrier Pipe:

1) Composition and Strength: All casings shall conform to the applicable ASTM standards and additional requirements listed below.

a) The material must be chemically compatible with any material it is to transport or otherwise contact.

b) Unless otherwise tested and approved by the County Engineer prior to beginning work, all encasement pipes or uncased carrier pipes shall be new and of round, smooth wall, leakproof construction. Used pipe in good condition may be used if approved by the County Engineer prior to beginning work.

c) The use of casings (not encased carriers) with wrapped protective coverings will not be allowed.

d) **Plastic Pipe**: Plastic pipe may be installed by jacking and boring except when used as pressurized carrier pipes containing gases or fluids. Closed end jacking of plastic pipe, or open end jacking without an auger for continuous cleanout of the bore as the jacking progresses, will not be allowed.

e) Plastic pipe must meet or exceed the following strength and composition standards:

PVC (Polyvinyl-Chloride)	ASTM D 1785
PE (Polyethylene)	ASTM D 2447
PE (Polyethylene - Gas pipe over 3 1/2 inches)	ASTM D 2513
PB (Polybutylene)	ASTM D 2662
CAB (Cellulose Acetate Butyrate)	ASTM D 1503
ABS (Acrylonitrile-Butadiene Styrene)	ASTM D 1527
RTRP (Reinforced Thermosetting Resin Pipe)	ASTM D 2296 or D 2997

f) For all plastic pipe used, an air pressure test for leaks shall be conducted in the presence of the County Engineer or his representative immediately upon completion of each crossing at a minimum test pressure of 20 psi. The test shall be abandoned, if in the opinion of the County Engineer, the leaks are potentially damaging to the roadway. Either of the two test methods outlined below will be satisfactory.

(1) Standard 24 pressure test with recording chart.

(2) Pressure test utilizing a dragnet type leak detecting device, or other equivalent testing equipment capable of detecting pressure drops of 1/2 psi. Length of test is to be recommended by the testing equipment manufacturer for the conditions of the particular job.

g) Immediately following the pressure test, the results shall be furnished to the County Engineer or his representative. Leaking pipes that cannot be repaired to meet pressure tests are to filled with concrete by pressure grouting or other approved means and placed out of service if in the opinion of the County Engineer the leaks are potentially damaging to the roadway.

b. Length: Casings and uncased carrier pipes shall be of sufficient length to extend under all pavements and in no case shall the end of the casing be closer than 8 feet from the pavement edge, or 4 feet from back of curb plus additional length as necessary to extend to the excavated slopes of the jacking and receiving pits. Slope requirements are detailed in Paragraph 005, b, 4), *Jacking Pits*, of this part. The ends of casings for flammable materials shall be no closer to the pavement edge (including paved shoulders) than the toe of the front slope.

c. Joints and Couplings:

1) Steel Pipe

a) Couplings: Couplings shall be tight, tack welded if necessary, and sufficiently rigid (no noticeable movement in joint) to prevent misalignment

during driving or pushing operation. Tack welding of couplings is only required where necessary to ensure the integrity of the joint.

b) Welded Joints: Joint welds shall be made in a neat workmanlike manner by a certified welder and shall be air tight and continuous over the entire circumference of the pipe with a bead equal to the minimum wall thickness, and shall increase the outside diameter by no more than 3/4 inch total.

2) Plastic Pipe

a) Couplings: Plastic pipe couplings shall meet or exceed all applicable ASTM strength and composition standards for the particular type being used.

b) Joints: Plastic pipe joints shall be made in accordance with applicable ASTM standards. In all cases, the joints shall be made sufficiently strong to withstand the stresses of jacking, with joints completely set and cured prior to placement of the pipe.

3) Coupling Thickness: Coupling thickness shall be such that the overall casing diameter is increased by no more than 3/4 inch total. All couplings shall be leakproof.

d. Drilling Fluids: If drilling fluids are used to lubricate the auger and facilitate the removal of cuttings, they shall consist of a mixture of water and gel-forming colloidal material such as bentonite, or a polymersurfactant mixture producing a slurry of custard-like consistency. Plain water may be used if appropriate under the conditions outlined in Paragraph 005, b, 6), e), (2), (c) of this part.

e. Shoring and Bracing Material: Materials used for sheeting, sheet piling, cribbing, bracing, shoring and underpinning shall be in good serviceable condition, and timbers shall be sound, free from large or loose knots and of proper dimensions, as required by OSHA regulations.

Paragraph 003. Equipment:

General: In keeping with the overall objective of this section, this paragraph is intended to set forth guidelines for the use of equipment solely to prevent unnecessary stoppages and subsequent damage to the roadway. All equipment used in the execution of work covered under the Utility Permit shall have the built-in capacity, stability and necessary safety features required to fully comply with the specifications and requirements of this section without showing evidence of undue stress or failure. It shall be the responsibility of the permittee to assure that the equipment to be used in the crossing operation is in sound operating condition. Backup equipment may be required where job site conditions indicate that severe damage to the roadway or a hazardous condition may result because of an equipment breakdown and where the condition of the equipment to be used indicates that routine component replacement or repair is likely to be necessary during the crossing.

1) Auger Power Units: These are power units providing rotational force to the cutting head and/or the auger used to remove spoil material as the bore progresses, and may also provide power for jacks used to push the casing. Power units shall be in proper operating condition and shall have sufficient power to satisfactorily complete the proposed crossing according to the manufacturer's recommendations.

2) Augers: These are screw-type steel drive tubes or shafts with one male end and one female end for coupling and welded steel fighting (threads).

a) Auger shafts shall be straight and otherwise undamaged.

b) Fighting shall be undamaged and securely welded to the body of the auger shaft and be continuous with no gaps from end to end of each auger section.

3) Cutting Heads: These are boring attachments fastened to the leading end of first auger section equipped with special teeth, bits, blades, chippers or cutters used to cut or chip away rock or hard soils in advance of auger.

a) Cutting heads shall be undamaged and have no missing or broken teeth or bits.

b) Pinned or hinged wing cutters must be constructed in such a manner as to ensure overboring does not exceed limits specified in Paragraph 005, b, 5), d), *Methods of Reducing Skin Friction*, of this part.

4) Auger Tracks: These support the boring machine and provide line and grade control.

a) Tracks shall be straight and otherwise undamaged with no broken welds.

b) Tracks shall be constructed so as to remain rigid at joints and allow no appreciable flexing as power unit passes.

5) Jacks: These are hydraulic, mechanical, or manual power units providing horizontal thrust for pushing casing or carrier pipe. Jacks shall have sufficient power to satisfactorily complete the proposed crossing according to the manufacturer's recommendations.

a) Hydraulic: Hydraulic jacks shall be in sound operating condition. Hoses shall not be cracked or split; all couplings and fittings shall be tight and entire system reasonably free from leaks. Hydraulic cylinder rods should be clean and smooth to prevent damage to cylinder seals.

b) Mechanical: Mechanical jacks include manual, power drive, and ratchet type jacks, and winch and pulley systems. All mechanical jacking systems shall be in sound operating condition with no broken welds, excessively worn

parts, broken teeth, or badly bent or otherwise misaligned components. All ropes, cables, clamps and other non-mechanical but essential items shall be in sound condition.

c) **Other**: Devices or systems for providing horizontal thrust other than those previously defined in the preceding paragraphs shall not be used unless approved for use by the County Engineer prior to commencement of work. Consideration for approval will be made on an individual basis for each properly permitted crossing. The proposed device or system will be evaluated prior to approval or rejection on it's potential ability to complete the crossing satisfactorily without undue stoppage and to maintain line and grade within the tolerances prescribed by the particular conditions of the job. Jetting or water sluicing methods, jetting with compressed air, or boring or tunneling devices with vibrating type heads that do not provide positive control of line and grade shall not be allowed.

6) **Anchors and Braces**: These are jacking bases or deadmen used to provide a rigid base from which the horizontal thrust from the jacking unit is transferred to the casing. The jacking base or deadman must be sufficiently strong to withstand the pressures generated by the jacking unit throughout the jacking operation without appreciable movement or deformation.

7) **Dewatering Equipment**: Equipment used to evacuate ground and surface water from jacking and receiving pit areas and along the path of a proposed bore.

a) **Pump**: The pump shall be in proper operating condition and of sufficient capacity to satisfactorily dewater the pit and bore areas under the conditions of a particular job.

b) **Header Line**: This line is a collector pipe connecting the pump with individual swing joints, risers and well points in a well point dewatering system. Header line shall be straight, free from large dents, kinks, or cracks and sufficient in size to pass the anticipated flow.

c) **Swing Joints or Half Swings**: These are hoses or pipes that connect individual well points and risers to the header line. Swing joints shall be undamaged and feature a workable stop cock or equivalent device for controlling air intrusion into the system.

d) **Risers**: These pipes connecting well points to swing joints should be reasonably straight and otherwise undamaged.

e) **Well Points**: These connect to the bottom end of a riser pipe and are perforated and screened to draw water from surrounding area without allowing the intrusion of soil. Well points must be undamaged with clear and unclogged screens.

8) Directional Boring: A directional bore must use an auger or mechanical cutting type head and shall be controlled as to depth and angle while boring. The distance between the top elevation of the bore (pipe) and the surface must be at least 3 ½ times greater than the outside diameter of the bore (pipe). In all cases, the top elevation of the bore (pipe) must be equal to or greater than the requirements found elsewhere in this section. When directional boring is used, the UAO shall furnish the County Engineer with elevation readings every 5 feet on the "As Built" drawings, or as otherwise directed by the County Engineer. The maximum diameter on any directional bore or pull back can only be up to 6 inches inside diameter unless approved by the County Engineer or his designee.

a) Horizontal Boring Equipment: This equipment includes locking devices, surveying instruments, power plants, hydraulic motors and attachments as mud mixing units and related equipment.

b) Proof of Competence: The UAO shall require all directional boring contractors to provide proof of competence from the FDOT before any permit could be approved.

Note: A COUNTY INSPECTOR SHOULD BE ON JOB SITES FOR ALL DIRECTIONAL BORES CROSSING A COUNTY ROADWAY.

9) Other Equipment: Any equipment used on the job that has not been defined and covered previously in this paragraph must be in proper working order and otherwise conform to the requirements as outlined in this paragraph.

Paragraph 004. Personnel Requirements:

a. A responsible representative of the permittee must be present at all times during the actual crossing operation on all crossings.

b. The permittee or the permittee's contractor shall have a sufficient number of competent workers on the job at all times to insure the crossing is made in a timely and otherwise satisfactory manner. Adequate personnel for carrying out all phases of the actual crossing operation must be on the job site at the beginning of work. These shall include, where applicable, boring machine operator, certified welder(s) for joining additional casing sections, crane or lift operator for removing spoil material, and laborers as necessary for various related tasks. A competent and experienced supervisor representing the contractor who is thoroughly familiar with the equipment and type of work being performed, must be in direct charge and control of the operation at all times. In all cases the supervisor must be continually present at the job site during the actual crossing operation.

c. As stated in the Utility Permit, the office of the County Engineer must be notified 24 hours in advance of starting work. In addition, the actual crossing operation shall not begin except as otherwise allowed by this paragraph until the County Engineer or his designee is present at the job site and agrees that proper preparations for the crossing have been made. The

County Engineer's approval for beginning the crossing shall in no way relieve the permittee of the ultimate responsibility for satisfactory completion of the work as authorized by the Utility Permit. The County Engineer or his designee must be present on the job site at all times during the actual crossing operation on "Major Crossings", or where plastic pipe is used.

d. It shall be the responsibility of the County to provide inspection personnel at such times as appropriate without causing undue hardship by reason of delay to the permittee or the permittee's contractor. If the permittee or permittee's contractor fails to begin the crossing operation at the agreed time, the County Engineer or his designee will establish the next mutually convenient time to begin. On the other hand, the permittee or permittee's contractor shall not be required to delay the operation beyond the agreed starting time if the County fails to have its representative present at that time. To avoid undue hardship on either party, reasonable and mutual cooperation should be exercised where starting times are concerned. If one party fails to meet the agreed schedule, the other party is expected to consider a delayed start if the crossing can be completed during daylight hours in keeping with the requirements of Paragraph 005, b, 6), *Crossing Operation*, of this part.

Paragraph 005. Procedure:

a. Safety: Erection or installation of appropriate safety and warning devices shall be complete prior to beginning work. See Part I of this section for MOT requirements.

b. Subsurface Soil and Drainage Investigation:

1) In general, the greatest influences on the success or failure of an underground crossing are the existing subsurface soil and water conditions. To correctly plan individual crossing procedures such as dewatering, use of cutting heads, and positioning of auger within the casing, and to accurately locate potential problem areas, a subsurface investigation must be made by the permittee or permittee's contractor.

2) Prior to beginning work on "Major Crossings," and when requested, the permittee must submit to the County Engineer a report of subsurface soil and ground water conditions as they exist in the area of the jacking pits and along the path of the proposed crossing. The purpose of the report is to insure that the subsurface conditions are known to the permittee or his contractor and his proposed crossing procedure is based on factual information. The report must be in writing and contain:

a) general classification of soils along the path of a proposed crossing;

b) ground water elevation(s) along the path of a proposed crossing;

c) location and size of underground utilities or obstructions discovered during the investigation that were not shown, or were shown inaccurately on the Utility Permit sketch;

d) Invert elevations of proposed bore, and existing utilities and obstructions;

e) jacking and receiving pit floor elevations(s);

f) profile drawing showing roadway cross section and subsurface conditions such as location, cover, diameter, type of material and carried product of all known existing utilities along the path of a proposed bore, with pertinent information clearly labeled and dimensioned;

g) project identification and testing log;

(1) Utility Permit number and location of project;

(2) name of person collecting data, firm employed by, and position with firm;

(3) dates and times of ground water observations including the time and date the test hole was made;

(4) equipment used in making the tests;

(5) comments and pertinent information not shown in the body of a report, including any information concerning the subsequent design of a dewatering system that might not have any other effect on the proposed crossing procedure.

(a) For example, a thin but impervious layer of clay that would have little or no effect on jacking procedure itself could indicate a perched water table that would certainly have to be considered in the design of a dewatering system.

(b) The purpose of the subsurface investigation report must be considered foremost in collecting the required data. The detailed classification of soils necessary for most engineering purposes would be difficult to interpret and relate to the job at hand from a boring contractor's view-point.

(c) Therefore, rather than utilizing one of the several formal soil classification systems currently in use, the data should be separated into broad categories of materials that have a direct and clear bearing on what procedure should be followed on an individual crossing.

(d) The determination of ground water levels is an important aspect of a sub-surface investigation. Saturated soil conditions along the path of a proposed crossing dictate a

crossing procedure quite different from that of a crossing through dry materials. Every effort should be made therefore, to secure accurate and complete water table information.

(e) The method of obtaining the required data will vary depending upon the type of roadway facility and the nature of the utility involved; for example, for small diameter crossings under rural two lane roads where solid conditions are not subject to great variation, a test hole on either side of the pavement made with a post hole digger or hand auger might be sufficient.

(f) The other extreme would be a large diameter bore under a multilane facility in an urbanized curb and gutter section where the possibility of a damaging and possibly hazardous failure due to unknown subsurface problems requires that considerably more effort be made in the subsurface investigation. Core borings through the pavement slightly offset from the proposed bore might be in order. The corings would be spaced at intervals dictated by sound local practice that will produce an accurate profile of subsurface conditions.

(g) Corings through pavement would be unnecessary in areas known to have no significant soil variations; however, when pavement coring is in order it shall be done by qualified persons with appropriate equipment and with the test holes being properly refilled and patched at the end of each operation.

(h) If dewatering is required, (see following subparagraph) one test hole on either side of the pavement and in median areas where applicable, shall be cased for use as piezometers to monitor ground water levels during the actual crossing. The casings will be allowed to protrude above ground only when adequately delineated and while work is in progress.

(i) Prior to conducting a subsurface investigation, the proposed means of obtaining the required data and corings through any paved area must be approved in advance by the County Engineer.

(j) If the subsurface conditions are known to the permittee or his contractor by previous work done in the immediate vicinity of the area, the information can be recorded in the subsurface investigation report with no physical testing required.

(k) If the permittee or permittee's contractor is not adequately equipped or experienced to satisfactorily meet the requirements of this section of these regulations, or if preceding subsurface investigation reports as submitted for previous jobs proved to be significantly inaccurate, the County Engineer may require that the subsurface investigation and report be done by the permittee's choice of reputable soils engineering firms experienced in the type of work herein required.

3) Dewatering: This process is the evacuation of ground and surface water from jacking and receiving pits and from the path of a proposed crossing.

a) Where the ground water level is above the invert of the proposed crossing, or above the floor level of the jacking pits, dewatering is necessary to reduce the water level to below the jacking pit floors and the invert of the proposed crossing, and must be designed, installed and in operation prior to beginning the crossing as follows:

(1) on all "Major Crossings" except where rock is present throughout the length of the bore and no likelihood of sand pockets exists; and

(2) on a crossing not otherwise classified as major where the existing groundwater level and particular soil type involved indicated that excessive flowback of spoil material as the jacking progresses is likely.

b) Dewatering shall not be necessary where remote-powered hydraulic equipment is used to make the crossing underwater.

c) When dewatering is necessary, and if requested, a plan showing the proposed method must be submitted to the County Engineer prior to beginning work. It must be in writing and should be included with the subsurface investigation report. The dewatering report shall contain where appropriate:

(1) plan and profile drawing of the area to be dewatered, showing:

(a) location on plan view of pumps, headers, well points, berms, sump holes, discharge points and their relationship to the roadway, jacking pits and path of the proposed crossing; and

(b) elevations or depths on profile view of the same features and equipment as above; and

(2) project identification and system design information as follows:

(a) Utility Permit number and location of project;

(b) name of person who designed the proposed dewatering system, firm employed by, and position with the firm;

(c) data upon which the design is based:

i. subsurface investigation as previously required;

ii. previous experience in the same area; and

iii. other data (describe);

(d) party responsible for operation and maintaining the proposed system; and

(e) comments and pertinent information not otherwise given.

d) The importance of a properly functioning dewatering system cannot be overemphasized. If the permittee or his contractor does not possess the experience and expertise necessary to properly design, operate and maintain the dewatering system as dictated by individual project conditions, the County Engineer may require that the system be designed and/or operated by the permittee's choice of reputable firms specializing in dewatering operations. Dewatering systems shall be in conformance with all applicable federal, State, County, and local pollution control and environmental protection regulations.

4) Jacking Pits: These are excavated areas from which jacking and receiving operations are accomplished.

a) Jacking Pit Excavation: Pit excavation shall be no closer than 8 feet from the roadway pavement edge or 4 feet from back of curb, whichever is applicable. When deemed necessary for safety, the County Engineer may require a greater distance than 8 feet from the edge of pavement.

(1) The pit dimensions shall be large enough to provide a safe, adequate working area with slopes no steeper than allowed by the *Florida Safe Trench Act.*

(2) All soil classifications shall be the same as OSHA's.

(3) Slopes shall extend from the proposed casing invert elevation to the existing ground level. Slopes are not required in solid rock.

(4) If slopes are not used, the pit walls shall be shored, sheeted, braced or otherwise supported by means of sufficient strength to protect the employees and inspectors working within them.

b) Pit Floor Stabilization: Where necessary to insure a solid, stable base for boring machinery, some means of stabilizing the pit floor must be provided. Stabilizing may vary, depending upon job site conditions, from timber supports under tracks, addition of clean sand or gravel to pit floor, or in some cases construction of concrete slabs on the pit floor. All stabilizing materials other than sand, gravel, and like materials must be removed upon completion of the project.

5) Equipment Set-Up:

a) Aligning and Leveling of Auger Tracks: To properly control line and grade during the crossing operation, it is imperative that the jacking unit tracks be rigidly set to the predetermined level and alignment requirements of the job. Control should be insured by the use of appropriate engineering instruments.

b) Auger and Casing Section Lengths: These should be determined prior to beginning the crossing operation to insure that the leading end of the first casing section will not be under, or within 3 feet of, any roadway pavement when the crossing operation is halted to join new auger and casing sections. As an exception, in areas where jacking pit space is restricted by narrow County right-of-way, or obstructions and will not allow continuous operations under paved areas as stipulated in this section, all preparations for adding additional casings and augers should be made prior to stopping under the pavement and joint made as quickly as possible.

c) Exceptions: Crossings made by closed end jacking method or crossings made in materials other than loose unstable soils, are not subject to the provisions of this section.

d) Methods of Reducing Skin Friction: Friction between the outer surface of the casing and the surrounding soil may be reduced by increasing the diameter of the casing hole by no more than 3/4 inch greater than the outside diameter of the casing itself, and may be accomplished as described below.

(1) Overboring: Use of a cutting head with an overall diameter of no more than 3/4 inch greater than the casing diameter. Maximum diameter includes wing cutters which must be securely blocked to limit the overall diameter in order to meet this requirement.

(2) Use of bands, couplings, collars or welds will be allowed, provided the casing diameter is increased by no more than 3/4 inch.

Any such device or method used shall be rigidly affixed and shall in no way weaken the leading edge of the casing. Collars and couplings used to reduce skin friction on steel pipe must be welded in place when cutting heads are used, eliminating the possibility of the cutting head unscrewing or dislodging the collar or coupling during the operation.

(3) **Use of lubricating materials** on the outer surface of the casing to reduce skin friction is acceptable, subject to the requirements of the Florida Department of Environmental Protection.

(4) **Flaring** of the casing end will be allowed provided that the original casing diameter is exceeded by no more than 3/4 inch.

e) Any cuts, tears, or cracks made to facilitate flaring shall be repaired and reinforced by welding to ensure that the strength of the flared section is equal to or greater than the original section. The use of a misaligned, undersized auger to cut an oversized hole is prohibited.

f) Relationship Between Auger or Cutting Head to the Leading End of the First Casing Section: The leading end of the first casing section shall be straight cut ninety degrees to the centerline of the casing; and the distance between the back of the cutting head or leading edge of the first bare auger section, to the leading end of the casing shall be as follows under the appropriate soil condition.

(1) **Rock**: On crossings made through solid rock, where the cutting head must precede the casing, the space between the back of the cutting head and the end of the casing shall be limited to the clearance necessary to allow the cutting head to function without coming in contact with the end of the casing. In areas where sand pockets may be encountered the cutting head must be constructed so that it can be retracted into the casing, to within the limits specified below for the particular material encountered.

(2) **Hard Pan, Clay, Hard Sand-Clay and Stable Cohesive Soils**: As in rock, the cutting head should normally precede the casing but the type of cutting head used must allow no more than 2 inches between the back of the head and leading end of the casing. Cutting heads with cylindrical, pointed chippers designed for use in solid rock shall not be used.

(3) **Loose, Unstable Soil**: The distance between the leading end of the first auger section and leading end of the casing shall be as necessary to maintain a solid plug of spoil material inside the forward portion of the casing.

(4) For casing diameters 8 inches or greater, the minimum space between the leading end of the auger, or cutting head as allowed below, and the leading end of the casing shall be no less than 1/2 the casing diameter. However, the setback shall be increased if necessary to prevent undue flowback of the spoil material. No setback is required for casing diameters less than 8 inches.

(5) Cutting heads may be used only where the subsurface investigation report or other reliable information indicates the likelihood of encountering a very hard soil strata, rock, or other obstructions such as tree stumps, and it is determined prior to beginning work that the area of difficulty may be passed by the use of an appropriate cutting head. The cutting head shall remain inside the casing as outlined above except during the passage of such obstructions.

(6) On large diameter jacked crossings where cleanout of the bore is accomplished by special digging machinery or by hand, the distance between the leading end of the casing and the actual cleanout operation shall be no less than that necessary to insure that voids will not form around the outside of the casing.

(7) The use of tunnel liners will be allowed only where the installation method and soil conditions insure that voids will not be formed around the outside of the liner during installation.

g) Auger Size and Spacing: The leading auger section used in conjunction with a cutting head must be full-sized having an outside diameter not less than the inside diameter of the casing less the amount needed to provide the minimum working clearance necessary. In no case shall the auger diameter be less than 1/2 inch smaller than the inside casing diameter unless some other positive means of restricting the movement of the cutting head as previously required is assured. Less than full-sized augers that are large enough to remove spoil satisfactorily will be allowed when the auger is not used in conjunction with a cutting head and is to remain within the casing at all times, except as follows:

Crossing Conditions	Minimum Length in Feet of Full-Sized Auger from Leading End of Casing
Rock	0
Hard Pan, clay, hard sand-clay	(dry) 0* (wet) 20
Stable cohesive soils	(dry) 0 (wet) 20

Loose unstable soils	(dry) 20	(wet) 40

Crossings requiring dewatering are to be considered as wet in the above table.

*Full-sized augers are not required if lateral movement of the cutting head has been otherwise restricted in a satisfactory manner.

h) Steel Shelving: Steel shelving welded inside the casing at the leading end to prevent undue flowback of spoil material, must be approved by the County Engineer or his designee prior to use. The casing, auger and cutting head requirements specified for the most restrictive condition to be encountered shall govern the set-up procedure for a particular crossing.

6) Crossing Operation:

a) The actual crossing operation shall be accomplished during daylight hours and shall not begin after the hour pre-established as the latest starting time that will allow completion during daylight hours except as allowed by b) below.

b) In emergency situations, or where delay would increase the likelihood of a failure, night time work will be allowed to complete a delayed crossing. In addition, where the obvious hazards of nighttime work are carefully considered and determined to be insignificant, nighttime work will be allowed to complete a properly planned crossing if the County Engineer agrees that the delay was caused by reasonably unavoidable circumstances, when such nighttime work is necessary to avoid placing an undue economic hardship on the permittee or his contractor.

c) Planned nighttime work is expressly prohibited and will not be allowed except as allowed in the special conditions of the Utility Permit.

d) **Any nighttime work shall be** in strict conformance with Part I, *Maintenance of Traffic*, of this section.

e) Crossing operation requirements under the appropriate method used and subsurface conditions are as follows:

(1) Driving or Jacking, Without Auger: For casings with outside diameters of 3 inches or less, at a minimum depth of 36 inches, and up to 5 inches outside diameter for depths of cover exceeding 6 feet, closed end jacking or driving is permitted.

(2) Hydraulic or Mechanical Jacking, With Auger: The use of an auger is required by the County on all crossings using casings greater than 5 inches outside diameter (greater than 3 inches outside diameter

if less than 6 feet deep) and is intended to prevent the formation of a rigid plug of spoil material at the head of the casing.

(a) If a drilling fluid is used to lubricate the outside of the casing, or the auger and cuttings, it shall not be pumped under pressure great enough to cause any jetting action whatsoever, or to otherwise saturate the soil ahead of the casing.

(b) External drilling fluid carriers shall be no larger than 3/4 inch O.D. and must be permanently fastened to the casing with the leading end shielded from damage.

(c) In soils with a high clay content only, plain water may be used to clean the augers as necessary to prevent binding. When plain water is used, it must be hand pumped or gravity fed through a carrier pipe permanently and securely fastened to the casing.

(d) The point at which the water enters the casing shall be no closer to the leading end of the casing than 1/2 the casing diameter or 12 inches, whichever is less.

7) **Equipment Breakdowns or Other Unforeseen Stoppages**:

a) If forward motion of the casing is halted at any time other than for reasons planned for in advance (addition of casing and auger sections, etc.) and prevention of voids under paved areas cannot be assured, the casing must be filled with concrete by pressure grouting as soon as possible and abandoned. If removal of the augers from a casing to be abandoned will allow voids to form under paved areas at the casing head, the augers must be abandoned also.

b) When an obstruction is encountered that cannot be passed or an existing utility is damaged, cutting of the pavement for inspection will be approved by the County Engineer, but only after careful consideration if all pertinent facts indicate that such action would offer the most practical solution to the problem for all parties concerned. Any such authorized pavement opening shall be performed and repaired according to the requirements of Part F, Paragraph 002, c. of this section, *Pavement Cutting*.

8) Permit on Job Site: A copy of the approved Utility Permit and plan sheet(s) with the County approved MOT plan shall be kept by the permittee or permittee's contractor at the job site at all times. If a subsurface investigation report and/or dewatering plan is required, they too shall be kept at the job site along with the other required documents, and shall be shown to the County's representative upon request.

Paragraph 006. Waiver of Requirements: The requirements and recommendations contained in this section are appropriate for the most common crossing situations. Under unusual conditions, not adequately covered herein, these requirements may be altered or waived when their strict adherence would increase the likelihood of a crossing failure. Any such alteration or waiver shall be based on sound engineering judgement and must be fully documented. The applicant may also appeal any decision of the County Engineer to the Board of Adjustment as provided in Article Five, Section Three, Part G of these regulations.

Paragraph 007. New Techniques: Notwithstanding the provisions of this section relating to jacking and boring, other methods and techniques for installing utility crossings may be used subject to the approval of the County Engineer on a case by case basis.

Part M: Bridge Attachment, Corrosion Certification Guidelines

Paragraph 001. Bridge Attachment Guidelines: Listed below are guidelines to assist in the proper design of bridge attachments regarding corrosion certification. These basic criteria are used to minimize the amount of corrosion interference resulting from the attachment of utilities to bridge structures.

a. Provide a dielectric barrier between the utility and bridge structure which will insulate them electrically. This objective can be accomplished by using a non-metallic material for mounting hardware, supporting the pipe on an insulating pipe roll, encasing the utility in non-metallic pipe or providing a coating or wrapping such as neoprene between the utility and the mounting hardware. Additional precautions shall be taken by avoiding contact between metal components in the bridge and metal inserts and anchor bolts. Where the pipe or utility is mounted on saddles and guides to allow for movement, additional provisions should be made to compensate for wear. All contact between dissimilar metals should be avoided.

b. The installation of insulating joints in the utility on each end of the bridge structure will help reduce the possibility of corrosion interference. Electrical test leads installed on each side of an insulated joint will provide the necessary means for periodic testing.

c. One utility shall not have electrical continuity with another in any of the sections attached to the bridge. Individual isolation will allow for correction of future problems which might occur and will expedite periodic maintenance checks and tests.

d. Where the utility passes through any part of the concrete bridge structure into the soil or water, provisions shall be made to separate the contact area. This task can be accomplished by installing a non-metallic sleeve through the concrete or by wrapping the utility with a mastic or neoprene material. Consideration should be given to separating the utility and concrete in buried thrust blocks.

e. Selection of the proper materials is extremely important. Corrosion resistant material, such as stainless steel or galvanizing, for mounting hardware is necessary. It is the responsibility of each permittee/UAO to install and maintain its facilities and not create undue maintenance

problems for other utilities or the bridge structure. **Such conditions as rust** streaks, discoloration and deterioration can be eliminated through proper material selection.

Paragraph 002. Coating System for Pipe Attachments:

a. Coating Requirements: Materials and procedures described in Subparagraphs 1) through 4) should be used for potable water mains attached to bridges and bridge appendages. Those described in Subparagraphs 1) through 3) should be used for gas, sewer or other ferrous piping systems attached to bridges and bridge appendages.

1) Surface Preparation: Near white metal blast cleaning with silica sand (1.0 to 3.0 mil anchor pattern) according to SSPC-CP 10-63.

2) Exterior Metal Surface (excluding pipe flange face):

a) Primer Coat: 3.0 mils to 5.0 mils (dry mils) of a two package selfcuring alkyl silicate inorganic zinc rich primer (80% to 85% metallic zinc in cured dry film);

b) Intermediate Coat: 4.0 mils to 6.0 mils (dry mils) of catalyzed polyamide epoxy (white); and

c) Top Coat: 2.0 mils to 4.0 mils (dry mils) of catalyzed aliphatic polyurethane (grey color matching color no 36622 of the Federal Standard No. 595a). Color banding should be used at the abutments and at 500 feet intervals along pressure pipe. This band, 6 inches wide, should conform with OSHA color codes according to the material being transmitted.

3) Pipe Flange Face Primer Coat: 3.0 mils to 5.0 mils (dry mils) of a two package selfcuring alkyl silicate inorganic zinc rich primer (80% to 85% metallic zinc in cured dry film). No intermediate coat or topcoat should be applied to the pipe flange face.

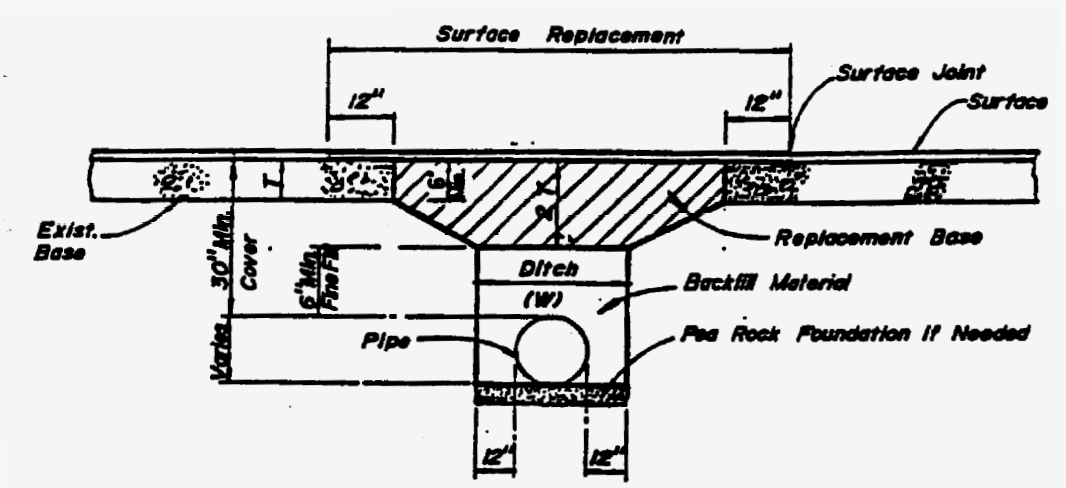
4) Internal Metal Surfaces: Internal metal surfaces must be lined with cement or other linings. An alternate to lining the pipe would be to coat the surfaces as described below.

a) Primer Coat: 5.0 mils to 8.0 mils (dry mils) of potable water approved catalyzed high build epoxy (grey); and

b) Top Coat: 5.0 mils to 8.0 mils (dry mils) of potable water approved catalyzed high build epoxy (white).

b. Coating Products Approval: All coating products used are subject to the approval of the Bureau of Materials and Research, Florida Department of Transportation, Gainesville.

Part N: Reserved



PAVEMENT RESTORATION DETAIL

NTS

GENERAL NOTES

1. Replaced base material over ditch shall be twice the thickness of the original base, or 12 inches minimum.

2. All backfill, including base material shall be replaced in 6 inches minimum lifts and each lift compacted to 98% density as per AASHTO T-180.

3. Asphalt Concrete pavement joints shall be mechanically sawed.

4. Surface treated pavement joints shall be lapped and feathered.

5. Surface material shall be 1 inch minimum Asphalt Concrete, Type S-III.

6. If a median is crossed, the area will be restored and seeded or sodded.

7. Backfill material shall meet FDOT standard specifications.

Directional Bore

P & M Communications Contractors

1242 W Olive St
Lakeland, FL 33815
Phone 863.683.5599
Fax 863.683.5483

Estimate

Date	Estimate #
03/11/2005	

Name / Address
Placid Lakes Utilities, Inc 2000 Jefferson Avenue Lake Placid, Florida 33852 Attn: Scott Hutchins Fax (863-465-1313)

Job	P.O. No.	Terms	Due Date
		Net 30	04/10/2005

Item	Description	Qty	Rate	Total
	9003 Placid Lakes Blvd			
LABOR	Directional bore 2" continuous conduit The above labor price includes utility locates, bentonite removal, rough backfill of bore pits. Does NOT include any pipe connection, pipe testing survey, bonding or permitting, seeding, sodding.	35	13.50	472.50
MATERIAL	2" Gray continuous conduit schedule 40	35	1.00	35.00
	**** Note: P & M is not responsible for any utilities not located by Sunshine Locates Service or made known to P & M by the "as built drawing".			

Thank you for your business - This estimate is good for 30 days from this date.

Total $507.50

Customer Signature Scott Hutchins

P & M Communications Contractors

1242 W Olive St
Lakeland, FL 33815
Phone 863.683.5599
Fax 863.683.5483

Estimate

Date	Estimate #
4/12/2005	

Name / Address
Placid Lakes Utilities, Inc 2000 Jefferson Avenue Lake Placid, Florida 33852 Attn: Scott Hutchins Fax (863-465-1313)

Job	P.O. No.	Terms	Due Date
		Net 30	5/12/2005

Item	Description	Qty	Rate	Total
	107 Bougar Villa			
LABOR	Directional bore 2" casing. The above labor price includes utility locates, bentonite removal, rough backfill of bore pits. Does NOT include any pipe connection, pipe testing survey, bonding or permitting, seeding,sodding	35	13.50	472.50
MATERIAL	2" gray continuous conduit schedule 40	35	1.00	35.00
	*** Note: P & M is not responsible for any utilities not located by Sunshine Locates Service or made known to P & M by the "as built drawing".			

Estimate for labor is good for 30 days.
Estimate for material is good for 7 days.

Total $507.50

Customer Signature

P & M Communications Contractors

1242 W Olive St
Lakeland, FL 33815
Phone 863.683.5599
Fax 863.683.5483

Estimate

Date	Estimate #
03/01/2005	

Name / Address
Placid Lakes Utilities, Inc 2000 Jefferson Avenue Lake Placid, Florida 33852 Attn: Scott Hutchins Fax (863-465-1313)

Job	P.O. No.	Terms	Due Date
		Net 30	04/10/2005

Item	Description	Qty	Rate	Total
	804 Dunnon Ave			
LABOR	Directional bore 2" continuous conduit The above labor price includes utility locates, bentonite removal, rough backfill of bore pits. Does NOT include any pipe connection, pipe testing survey, bonding or permitting, seeding, sodding.	35	13.50	472.50
MATERIAL	2" Gray continuous conduit schedule 40	35	1.00	35.00
	**** Note: P & M is not responsible for any utilities not located by Sunshine Locates Service or made known to P & M by the "as built drawing".			

Thank you for your business - This estimate is good for 30 days from this date.

Total $507.50

Customer Signature

P & M Communications Contractors

1242 W Olive St
Lakeland, FL 33815
Phone 863.683.5599
Fax 863.683.5483

Estimate

Date	Estimate #
03/11/2005	

Name / Address
Placid Lakes Utilities, Inc 2000 Jefferson Avenue Lake Placid, Florida 33852 Attn: Scott Hutchins Fax (863-465-1313)

Job	P.O. No.	Terms	Due Date
		Net 30	04/10/2005

Item	Description	Qty	Rate	Total
	[redacted] 13 Coolidge Ave - Lot 21 Blk 13			
LABOR	Directional bore 2" continuous conduit The above labor price includes utility locates, bentonite removal, rough backfill of bore pits, Does NOT include any pipe connection, pipe testing survey, bonding or permitting, seeding, sodding.	35	13.50	472.50
MATERIAL	2" Gray continuous conduit schedule 40	35	1.00	35.00
	**** Note. P & M is not responsible for any utilities not located by Sunshine Locates Service or made known to P & M by the "as built drawing".			

Thank you for your business - This estimate is good for 30 days from this date.

Total $507.50

Customer Signature

Pugh Utilities Service, Inc.
760 Henscratch Road
Lake Placid, Florida 33852
(863) 465-6911
Fax (863) 465-5159

March 1, 2004

Price List

The following is an updated price list for daily operator coverage, pushunders and line extension charges per foot.

Pushunders:

	125.00	
1"	$150.00	
2"	~~$125.00~~	150.00
3"	$175.00	
4"	$325.00	
5"	$375.00	
6"	$450.00	

Over 6", please call for a quote.

Daily operator coverage, per plant, per day $55.00

Line Extensions (per foot):

Dry	$4.50
Wet	$5.00

SUNSTATE METER & SUPPLY, INC.

14001 W. NEWBERRY ROAD
NEWBERRY, FLORIDA 32669-2710
PHONE (352) 332-7106 • FAX (352) 332-5604

"DISTRIBUTOR FOR MAJOR BRANDS OF WATER AND SEWER SYSTEMS SUPPLIES"

HAVE A NICE DAY

CUST NO.	JOB NO.	PURCHASE ORDER NO.	REFERENCE	TERMS	CLERK	DATE	TIME
200657	1	BILLY	PO # BILLY ORDR # 12334	NET 30 DAYS	SONYA	3/14/05	1:43

SOLD PLACID LAKES UTILITIES
410 WASHINGTON BLVD. N.W.

LAKE PLACID FL 33852
(863) 465-0345

SHIP PLACID LAKES UTILITIES
410 WASHINGTON BLVD. N.W.

TO LAKE PLACID FL 33852
(863) 465-0345

DUE DATE: 4/13/05

SLSPR: 03 VALUE ADDED SALES,INC.
TAX : 001 FLORIDA SALES TAX

DOC# 40794
****
* INVOICE *
****

ORDR 123346

A FINANCE CHARGE IS COMPUTED BY A PERIODIC RATE OF 1½% PER MONTH, WHICH IS AN ANNUAL RATE OF 18% PER YEAR APPLIED TO THE PREVIOUS BALANCE WITHOUT DEDUCTING CURRENT PAYMENTS AND/OR CREDITS APPLIED ON THIS ACCOUNT. OUR CURRENT PRICE POLICY IS PRICE IN EFFECT AT TIME OF SHIPMENT.

LN	SHIPPED	ORDERED	UM	SKU	DESCRIPTION	UNITS	PRICE/PER	EXTENSION
5					READ HOLE			
6	6		EA	F1000-4	1" CORP STOP, CC X PJ/CTS	6	25.99 /EA	155.94
7	25		EA	C14-33	3/4" STRAIGHT COUPLING FIP x	25	8.08 /EA	202.00
8					PJ/CTS			
9	8		EA	Y44-243	1 x 3/4 x 3/4 Y-BRANCH PJ/CTS	8	19.39 /EA	155.12
0	4		EA	S70-304	3x1 CC BRASS SADDLE	4	18.05 /EA	72.20
1	6		EA	S70-604	6x1 CC BRASS SADDLE	6	31.70 /EA	190.20
2	12		EA	2 FO	2" BRONZE GATE VALVE	12	39.06 /EA	468.72
3					"FULL OPEN" FIP X FIP			
4					TRUCK ADD SHIPPED 03/11/05			
5	1		EA	SHIP	SHIPPING INFORMATION	1	53.77 /EA	53.77 N

** AMOUNT CHARGED TO STORE ACCOUNT ** 6,845.04

TAXABLE	6391.78
NON-TAXABLE	53.77
SUBTOTAL	6445.55
TAX AMOUNT	399.49
TOTAL AMOUNT	6845.04

SUNSTATE METER & SUPPLY, INC.

14001 W. NEWBERRY ROAD
NEWBERRY, FLORIDA 32669-2710
PHONE (352) 332-7106 • FAX (352) 332-5604

"DISTRIBUTOR FOR MAJOR BRANDS OF WATER AND SEWER SYSTEMS SUPPLIES"

HAVE A NICE DAY

CUST NO	JOB NO	PURCHASE ORDER NO	REFERENCE	TERMS	CLERK	DATE	TIME
200657	1	BILLY	PO # BILLY ORDR # 12519	NET 30 DAYS	SONYA	4/ 8/05	1:55

SOLD TO: PLACID LAKES UTILITIES
410 WASHINGTON BLVD. N.W.
LAKE PLACID FL 33852
(863) 465-0345

SHIP TO: PLACID LAKES UTILITIES
410 WASHINGTON BLVD. N.W.
LAKE PLACID FL 33852
(863) 465-0345

DUE DATE: 5/ 8/05

DOC# 41331
****
* INVOICE *
****

SLSPR: 03 VALUE ADDED SALES,INC.
TAX : 001 FLORIDA SALES TAX

ORDR 125197

A FINANCE CHARGE IS COMPUTED BY A PERIODIC RATE OF 1½% PER MONTH, WHICH IS AN ANNUAL RATE OF 18% PER YEAR APPLIED TO THE PREVIOUS BALANCE WITHOUT DEDUCTING CURRENT PAYMENTS AND/OR CREDITS APPLIED ON THIS ACCOUNT. OUR CURRENT PRICE POLICY IS PRICE IN EFFECT AT TIME OF SHIPMENT.

LN	SHIPPED	ORDERED	UM	STOCK	DESCRIPTION		UNITS	PRICE/UM	EXTENSION	
	42		EA	ED2B21R6G8S955	5/8X3/4 T10 PROREAD GALLON METER		42	78.50 /EA	3,297.00	
					W/BRZ BTM, 6-WHEEL ENCODER					
					SA46 OPTION - PREWIRED &					
					POTTED TO BUTTON PIT PAD					
					WITH 6ft WIRE					
					S/N 80692954-2995					
	24		EA	G148-233T	FORD SINGLE GULFBOX		24	92.58 /EA	2,221.92	
					3/4" PJ/CTS INLET X 3/4" MIPT					
					OUTLET - W/LOCKING LID & TOUCH					
)					READ HOLE					
1	4		EA	S70-404	4 X 1 CC BRASS SADDLE		4	21.79 /EA	87.16	
					TRUCK ADD SHIPPED 04/08/05					
3	1		EA	SHIP	SHIPPING INFORMATION		1	69.96 /EA	69.96	N
					** AMOUNT CHARGED TO STORE ACCOUNT **		6,026.42	TAXABLE	5606.08	
								NON-TAXABLE	69.96	
								SUBTOTAL	5676.04	
								TAX AMOUNT	350.38	
								TOTAL AMOUNT	6026.42	

SUNSTATE METER & SUPPLY, INC.

14001 W. NEWBERRY ROAD
NEWBERRY, FLORIDA 32669-2710
PHONE (352) 332-7106 • FAX (352) 332-5604

PAGE NO 1

"DISTRIBUTOR FOR MAJOR BRANDS OF WATER AND SEWER SYSTEMS SUPPLIES"

HAVE A NICE DAY

CUST NO.	JOB NO.	PURCHASE ORDER NO.	REFERENCE	TERMS	CLERK	DATE	TIME
200657	1	BILLY	PO # BILLY ORDR # 11915	NET 30 DAYS	SONYA	1/11/05	1:34

SOLD TO
PLACID LAKES UTILITIES
410 WASHINGTON BLVD. N.W.
LAKE PLACID FL 33852
(863) 465-0345

SHIP TO
PLACID LAKES UTILITIES
410 WASHINGTON BLVD. N.W.
LAKE PLACID FL 33852
(863) 465-0345

DUE DATE: 2/10/05

DOC# 39343
****
* INVOICE *
****

SLSPR: 03 VALUE ADDED SALES,INC.
TAX : 001 FLORIDA SALES TAX

ORDR 119154

A FINANCE CHARGE IS COMPUTED BY A PERIODIC RATE OF 1½% PER MONTH, WHICH IS AN ANNUAL RATE OF 18% PER YEAR APPLIED TO THE PREVIOUS BALANCE WITHOUT DEDUCTING CURRENT PAYMENTS AND/OR CREDITS APPLIED ON THIS ACCOUNT. OUR CURRENT PRICE POLICY IS PRICE IN EFFECT AT TIME OF SHIPMENT.

LN#	SHIPPED	ORDERED	UM	SKU	DESCRIPTION		UNITS	PRICE/PER	EXTENSION
1	30		EA	ED2B21R6G8S955	5/8X3/4 T10 PROREAD GALLON METER		30	78.50 /EA	2,355.00
2					W/BRZ RTM, 6-WHEEL ENCODER				
3					SA46 OPTION - PREWIRED &				
4					POTTED TO BUTTON PIT PAD				
5					WITH 6ft WIRE				
6					S/N 80130069-0098				
7	8		EA	S70-304	3x1 CC BRASS SADDLE		8	16.22 /EA	129.76
8	8		EA	S70-404	4 X 1 CC BRASS SADDLE		8	20.29 /EA	162.32
9	36		EA	Y44-243	1 x 3/4 x 3/4 Y-BRANCH PJ/CTS		36	17.42 /EA	627.12
10	24		EA	F1000-4	1" CORP STOP, CC X PJ/CTS		24	23.35 /EA	560.40
11	25		EA	C14-33	3/4" STRAIGHT COUPLING FIP x		25	7.26 /EA	181.50
12					PJ/CTS				
13	25		EA	3/4-X117	3/4" BRASS CORED PLUG		25	1.24 /EA	31.00
14					IMPORTED				
									CONT'D

INVOICE

INVOICE	INVOICE NUMBER
03/18/05	S114391859.002
DUE DATE	PAGE #
04/17/05	2 of 3

REMIT TO:
HUGHES SUPPLY INC
PO BOX 101888
ATLANTA GA 30392-1888

BRANCH: 7002
#7002 LAKELAND WATER & SEWER HSI
HUGHES SUPPLY INC
2515 AZ PARK RD
LAKELAND FL 33801-6803
863-665-5611 Fax 863-665-9616

SOLD TO: 38422 38422
LAKE PLACID HOLDING COMPANY
DBA PLACID LAKE UTIL INC
410 WASHINGTON BLVD NW
LAKE PLACID, FL 33852

SHIP TO: 38422
LAKE PLACID HOLDING COMPANY
DBA PLACID LAKE UTIL INC
410 WASHINGTON BLVD NW
LAKE PLACID, FL 33852

Ordered By	Telephone	Pricing Branch	Order Date	Purchase Order Number
	863-465-0345	7002	03/16/05	SCOTT
Salesperson	**Ship Via**		**Ship Date**	**Release Number**
Larry Watkins	OT OUR-TRUCK		03/18/05	
Writer	**Bill of Lading**		**Terms**	
J. Ray Williams			NET 30 DAYS 1.5% SC 30	

Ordered	Shipped	UM	FD	Product Description	Unit Price	UM	Net Amount
100	100	ea		VANG 3/4 PE CTS SDR9 BLUE 100	20.000	C	20.00
500	500	ea		VANG 1 PE CTS SDR9 BLUE 100	31.000	C	155.00
8	8	ea		SIGMA PLB-Q PIPEJOINT LUBE - QUART	0.000	ea	0.00
25	25	ea		EBAA 2003PV 3IN MEGALUG ONLY FOR PVC IPS PIPE	20.000	ea	500.00
25	25	ea		EBAA 2004PV 4IN MEGALUG ONLY FOR PVC C900/IPS PIPE	22.500	ea	562.50
10	10	ea		EBAA 2006PV 6IN MEGALUG ONLY FOR PVC C900/IPS PIPE	27.500	ea	275.00
1	1	ea		TY 077589 4IN X 3IN MJ REDUCER C153	55.000	ea	55.00
2	2	ea		TY 072201 4IN MJ 90 BEND C153 C/L L/ACC	45.000	ea	90.00
1	1	ea		TY 072188 3IN MJ 90 BEND C153 C/L L/ACC	34.000	ea	34.00

Continued on next page ...

PLACID LAKES UTILITIES, INC.

ACC #	JOB DESCRIPTION	4-14 THURSDAY	4-15 FRIDAY	4-16 SATURDAY	4-17 SUNDAY	4-18 MONDAY	4/19 TUESDAY	4/20 WED
601.1	Daily Water Plant Readings							
601.1	Billy/Vacation,Holiday, Sick							
601.2	Emergency Main/Plant							
601.2	Annual Tank Maintenance		6					
601.3	Daily Water Plant Tests							
601.3	Monthly Water Samples							
601.3	Mo Water Operating Report							
601.3	DEP Visits							
601.3	Scott/Vacation,Holiday, Sick							
601.4	Emergency Main/Treatment							
601.5	Locates	1					2	
601.5	Flushing Lines					1		3
601.5	Emergency Locates							
601.5	Valve Exercising							
601.5	CB/Vacation, Holiday, Sick							
601.6	Vehicle Main/Trucks							
601.6	Barn Maintenance					3	3	2
601.6	Emergency Main/Distribution							
601.6	Water Line Break							
	Pick up supplies/What for							
601.7	Customer Work Orders	2	2			2	1	3
601.7	Emergency Customer Orders							
601.7	Monthly Meter Reading							
601.7	Vehicle Main/Golf Cart							
601.7	Fold & Stuff Env/PSC Notices							
601.7	Lou/Vacation, Holiday, Sick							
601.8	CEU Classes							
601.8	OSHA/Post if not specific							
601.8	PSC Meetings							
333.4/334.4	New Meter Services	5				2		
334.4	Meter Replacements							
334.4	Meter & Access Assembly						2	
331.4	Office/call locates,paperwork							
331.4	Meet w/county-Line Extens							
331.4	Install Pipe Under Driveways							
		8	8			8	8	8

J.D.

Billy

TIMESHEET/WORKSHEET								
PLACID LAKES UTILITIES, INC.								
		4-14	4-15	4-16	4-17	4-18	4-19	4-20
ACC #	JOB DESCRIPTION	THURSDAY	FRIDAY	SATURDAY	SUNDAY	MONDAY	TUESDAY	WED
601.1	Daily Water Plant Readings			ON	CALL			
601.1	Billy/Vacation,Holiday, Sick							
601.2	Emergency Main/Plant							
601.2	Annual Tank Maintenance		4					
601.3	Daily Water Plant Tests							
601.3	Monthly Water Samples							
601.3	Mo Water Operating Report							
601.3	DEP Visits							
601.3	Scott/Vacation,Holiday, Sick							
601.4	Emergency Main/Treatment							
601.5	Locates		2					
601.5	Flushing Lines							
601.5	Emergency Locates							
601.5	Valve Exercising							
601.5	CB/Vacation, Holiday, Sick							
601.6	Vehicle Main/Trucks							
601.6	Barn Maintenance							
601.6	Emergency Main/Distribution							
601.6	Water Line Break							
	Pick up supplies/What for							
601.7	Customer Work Orders		2			2		
601.7	Emergency Customer Orders							
601.7	Monthly Meter Reading							
601.7	Vehicle Main/Golf Cart							
601.7	Fold & Stuff Env/PSC Notices							
601.7	Lou/Vacation, Holiday, Sick							
601.8	CEU Classes							
601.8	OSHA/Post if not specific							
601.8	PSC Meetings							
333.4/334.4	New Meter Services	6				2		
334.4	Meter Replacements						8	4
334.4	Meter & Access Assembly	2				4		4
331.4	Office/call locates,paperwork							
331.4	Meet w/county-Line Extens							
331.4	Install Pipe Under Driveways							