



Town of Chevy Chase
 4301 Willow Lane
 Chevy Chase, MD 20815

301-654-7144 (phone)
 301-718-9631 (fax)
townoffice@townofchevychase.org

Town Permit No.: <hr style="border: 0; border-top: 1px solid black; margin: 5px 0;"/>
--

Water Drainage Plan Application

Street Address: _____ Date: _____

Please ensure that you submit a complete application, as incomplete applications will not be reviewed. The Town has developed a guidance documents that should help explain the history, requirements, and methodology of the Town’s Water Drainage Ordinance. Copies are available online and in the Town Office. If you have any questions about the Water Drainage Plan approval process, please call the Town Office at 301-654-7144.

Applicant Information:

Name _____	Phone _____
Address _____	Cellular Phone _____
City _____ State _____ Zip _____	E-Mail _____

Contractor Information:

Name _____	Phone _____
Address _____	Cellular Phone _____
City _____ State _____ Zip _____	E-Mail _____

Water Drainage Plan Submittal Requirements – You must submit 2 paper copies and an electronic copy (.pdf)

- \$500 Application Fee
- Construction Drawings (including site plan, and detailed schematics)
- Completed Water Drainage Plan Application
- Results of soil infiltration tests, certified by a MD licensed geotechnical engineer
- Hydrologic, hydraulic, and volumetric computations for a three-month storm event
- Hydrologic, hydraulic, and volumetric computations for a ten-year storm event
- Report on the potential impacts of the proposed development activity on adjacent and nearby properties, including the public right-of-way
- Report on the effectiveness and acceptability of measures proposed for managing water drainage
- Maintenance Schedule
- Notarized Maintenance Agreement (attached)
- Performance Bond equal to estimated construction costs of drainage system (Include notarized Surety or Cash Bond Documents (attached) or Letter of Credit (on Bank Letterhead, sample attached))

If overflow pipes from containment vessels discharge water into the street:

- Right-of-Way usage agreement (available in office)

Estimated cost of installation of the proposed drainage system: _____

Please describe the project: _____

____ (initial) I hereby certify that this water drainage plan was prepared by a licensed professional civil engineer or land surveyor, licensed in the State of Maryland.

____ (initial) I hereby certify that the development activity will be conducted in strict compliance with the approved water drainage plan.

____ (initial) I hereby certify that I have obtained easements or necessary property interests if the proposed water drainage plan involves development activity such as grading and piping on another private property. I understand that approval of a water drainage plan does not create or affect any right with respect to any adjacent or nearby property without that property owner's permission.

Infiltration System Location Worksheet

An infiltration system shall be located at least five (5) feet from any property line, ten (10) feet from any proposed building on the subject property with a basement or cellar foundation, twenty (20) feet from any existing building on any adjoining property with a basement or cellar foundation, and five (5) feet from any existing and proposed building that does not have a basement or cellar foundation.

<u>Distance from:</u>	<u>Allowed</u>	<u>Proposed (at closest point)</u>
Any property line:	5'	_____
Building on subject property with basement or cellar:	10'	_____
Building on adjoining property with basement or cellar:	20'	_____
Building that does not have basement or cellar:	5'	_____

I understand that a condition for the issuance of this permit is that the proposed construction will comply at all times with the plans as approved by all applicable government agencies. I hereby declare and affirm, under penalty of perjury, that all matters and facts set forth in the permit application are true and correct to the best of my knowledge, information, and belief.

Applicant's Signature

Print Name

Date

I. Hydrologic, Hydraulic, and Volumetric Computations

1. Calculate the 3-Month Storm Event Required Storage Volume for the New Impervious Surface

Enter the Total Square Foot AREA of the New Impervious Surface: Box 1

Describe the Cover Type of the New Impervious Surface: _____

(Rooftop, concrete or asphalt driveway, semi-pervious surfaces)

Determine Curve Number (CN) for New Impervious Surface: Box 2

(go to Sec. III (Methodology) in Water Drainage Users' Guide for CN values)

Calculate the Required Storage Volume to Retain; Do this calculation for each different cover type that comprises all of the New Impervious Area.

Solve for S (potential maximum retention after runoff begins, unit less value)

$$S = \frac{1000}{CN} - 10 \qquad S = \text{Box 3} \quad \text{[input box]}$$

Now Solve for Q:

$$Q = \frac{(1.25 - 0.2S)^2}{(1.25 + 0.8S)}$$

Where:
Q = runoff (inches)
P = rainfall (1.25 inches for 3-Month Event)
S = potential maximum retention after runoff begins (inches)

Q = _____ Inches of Runoff

Convert the Inches of Runoff (Q) to Cubic Feet of Runoff by dividing Q by 12 and multiplying the result by the New Impervious Area (Box 1)

$$(Q \text{ (inches)} \div 12) \times \text{Impervious area (square feet)} = \text{Required Storage Volume (cubic feet)}$$

Required Storage Volume (cubic feet) = _____

If there is more than ONE type of New Impervious Surface, add up all the calculated values for the Total Required Storage Volume.

$$\text{Area 1} \text{ _____} + \text{Area 2} \text{ _____} = \text{_____ Total Required Storage Volume (Cubic Feet)}$$

3-Month Storm Event Total Required Storage Volume (cubic feet) to Retain:

$$S = \frac{1000 - 10}{CN}$$

$$S = \underline{\hspace{2cm}}$$

Now Solve for Q

$$Q = \frac{(5.1 - 0.2S)^2}{(5.1 + 0.8S)}$$

Where:

Q = runoff (inches)

P = rainfall (5.1 inches for 5-Year Event)

S = potential maximum retention after runoff begins (inches)

$$Q = \underline{\hspace{2cm}} \text{ Inches of Runoff}$$

Convert the Inches of Runoff (Q) to Cubic Feet of Runoff by dividing Q by 12 and multiplying the result by the New Impervious Area (Box 1)

$$Q \text{ (inches)} \div 12 \times \text{Impervious area (square feet)} = \text{Required Storage Volume (cubic feet)}$$

$$\text{Existing Conditions Runoff Volume (cubic feet)} = \underline{\hspace{2cm}}$$

If there is more than ONE type of Existing Surface, add up all the calculated values for the Total Existing Conditions Runoff Volume.

$$\text{Area 1 } \underline{\hspace{1cm}} \text{ cf} + \text{Area 2 } \underline{\hspace{1cm}} \text{ cf} = \underline{\hspace{1cm}} \text{ Total Required Storage Volume (Cubic Feet)}$$

10-Year Storm Event Total Runoff Volume for Existing Conditions (cubic feet):

Box 6

4. Calculate the Required Storage Volume to Retain for the Proposed Project

Determine the INCREASE in runoff for the 10-Year Storm event by Subtracting the Existing 10-Year Runoff (Box 6) from Proposed 10-Year Runoff (Box 5)

$$\text{Increase in 10-Year Storm Event Runoff} = \text{Box 7}$$

COMPARE the Values in Box 4 and Box 7. The LARGER value is the Required Storage Volume to Retain for the Proposed Project.

Box 8

II. Infiltration Test Results

All soil infiltration tests must be certified by a MD licensed geotechnical engineer. Infiltration testing data shall be documented, and include a description of the infiltration testing method. This is to ensure that the tester understands the procedure.

Test Pit/Boring Requirements

- Excavate a test pit or dig a standard soil boring to a depth of 4 feet below the proposed facility bottom;
- Determine depth to groundwater table (if within 4 feet of proposed bottom) upon initial digging or drilling, and again 24 hours later;
- Conduct Standard Penetration Testing (SPT) every 2' to a depth of 4 feet below the facility bottom;

Infiltration Testing Requirements

- Install casing (solid 5 inch diameter, 30" length) to 24" below proposed BMP bottom (see diagram).
- Remove any smeared soiled surfaces and provide a natural soil interface into which water may percolate. Remove all loose material from the casing. Upon the tester's discretion, a two (2) inch layer of coarse sand or fine gravel may be placed to protect the bottom from scouring and sediment. Fill casing with clean water to a depth of 24" and allow to pre-soak for twenty-four hours.
- Twenty-four hours later, refill casing with another 24" of clean water and monitor water level (measured drop from the top of the casing) for 1 hour. Repeat this procedure (filling the casing each time) three additional times, for a total of four observations. Upon the tester's discretion, the final field rate may either be the average of the four observations, or the value of the last observation. The final rate shall be reported in inches per hour.
- May be done through a boring or open excavation.
- The location of the test shall correspond to the BMP location.
- Upon completion of the testing, the casings shall be immediately pulled, and the test pit shall be back-filled.

Laboratory Testing

Use grain-size sieve analysis and hydrometer tests (where appropriate) to determine USDA soils classification and textural analysis. Visual field inspection by a qualified professional may also be used, provided it is documented. The use of lab testing to establish infiltration rates is prohibited.

Results

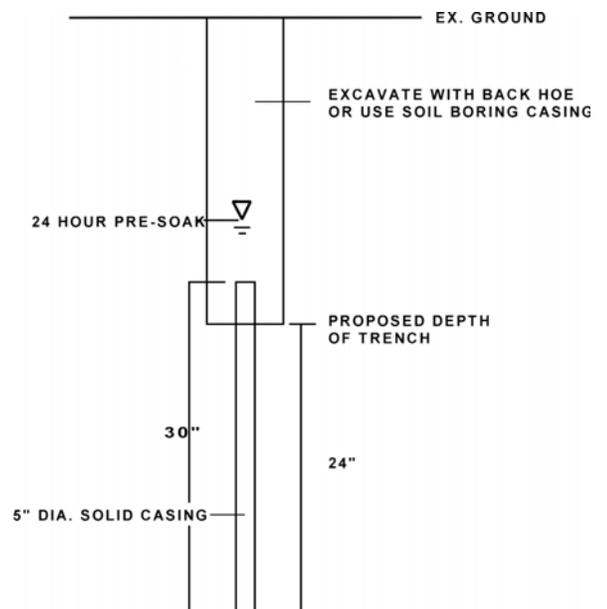
A site plan showing the location of all test pits and infiltration test locations shall be provided with an application.

USDA soils classification: _____

Test Pit A Infiltration Rate: _____

Test Pit B Infiltration Rate (if any): _____

Test Pit C Infiltration Rate (if any): _____



Property: _____, Chevy Chase
Montgomery County, Maryland 20815
(Parcel Identification Number: - - _____)

WATER DRAINAGE PLAN INSPECTION AND MAINTENANCE AGREEMENT

This Water Drainage Plan Inspection and Maintenance Agreement (this “Agreement”) is made this _____ day of _____, 20__ by _____, hereinafter referred to as the “Owner,” for the benefit of the Town of Chevy Chase, a municipal corporation in Montgomery County, Maryland hereinafter referred to as the “Town.”

WITNESSETH:

WHEREAS, the Owner is the owner of all of that property conveyed to Owner by deed dated _____ and recorded among the Land Records of Montgomery County, Maryland in Liber _____ at Folio _____. Said property also being known as Lot _____, Block _____ in the “_____” subdivision, depicted on a plat recorded among the Land Records of Montgomery County, Maryland in Plat Book No. _____ at Plat No. _____, hereinafter referred to as the “Subject Property.”

WHEREAS, Owner desires to develop or redevelop all or portions of the Subject Property; and

WHEREAS, prior to said developing or redeveloping, and as a prerequisite for the issuance of a building permit, the Owner is required by Chapter 28 of the Town of Chevy Chase Municipal Code (the “Chevy Chase Code”) to execute an inspection and maintenance agreement upon approval of the Owner’s water drainage plan; and

WHEREAS, the Owner has full authority to execute this Water Drainage Plan Inspection and Maintenance Agreement so as to bind the Subject Property and all current and future owners, successors, and assigns.

NOW, THEREFORE, in compliance with the requirements of Chapter 28 of the Chevy Chase Code and in consideration of the issuance by the Town of a building permit, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Owner does grant, covenant, and agree as follows:

1. The Owner shall construct a water drainage system (hereinafter the “System”) within the Subject Property described above in accordance with the water drainage plan approved by the Town. The Owner shall maintain in good condition and promptly repair and restore all grade surfaces, structures, drains, and other elements of the System in accordance with the maintenance schedule approved by the Town to ensure that the System is and remains in proper working condition in accordance with approved design standards, rules and regulations, and applicable laws.
2. The Owner shall grant to the Town Manager, or the Town Manager’s agent or contractor, the right of entry upon the Subject Property at reasonable times to ensure compliance with this Agreement and the approved water drainage plan.
3. The Town may, but is not obligated to, inspect the System. If, after thirty (30) days notice by the Town Manager, the Owner shall fail to construct, repair, maintain, or operate the System in accordance with the approved water drainage plan and with all applicable laws, rules and regulations, or fail to satisfactorily correct a violation requiring maintenance work, the Town Manager may, but is not obligated to, have all necessary construction, repair, maintenance and/or operating work performed to place the System in proper working condition, and the Owner shall be assessed the cost of the work and applicable penalties. The assessment shall constitute a lien on the property. The unpaid portion of the assessment may be placed on the tax bill and collected as property taxes or collected by a suit for damages.
4. If any part of the System is located on another property, all owners of that property have signed this Agreement confirming their consent to the presence of the System on their property and grant to the Owner, Town, and their respective successors in interest, a right of entry onto such property to repair and maintain the system.
5. In the event of a breach of this Agreement, the Town may enforce the provisions of this Agreement through a court of competent jurisdiction and may seek additional relief including, but not limited to, additional damages and injunctive relief.

6. The Owner shall indemnify and save the Town harmless from any and all claims for damages to persons or property arising from the construction, maintenance, repair, operation, and use of the System.

7. The Owner shall notify the Town of the legal and/or equitable transfer of any of the Owner's responsibilities for the System within thirty (30) days of such transfer, and shall supply the Town with a copy of any executed documents of said transfer. The Owner shall provide all subsequent owners, successors, assigns and any other party responsible for the maintenance of the System with a copy of this Agreement and with accurate as-built construction plans detailing the System and its appurtenances.

8. This Agreement shall not in any way relieve the Owner of responsibility for providing water drainage in addition to the System as may be deemed necessary by the Town or other appropriate agency.

9. This Agreement (including all terms, covenants and agreements contained herein) shall run with the title to the Subject Property and shall bind the Owner and the Owner's heirs, executors, administrators, personal representatives, successors, and assigns, and shall bind all present and subsequent owners of the property served by the System.

10. The Owner hereby represents and warrants that there are no suits, liens, leases, mortgages, or trusts affecting the Subject Property, other than those for which the holder in interest has signed this document or otherwise consented in writing to this Agreement. The Owner further represents and warrants that all parties with an interest in the Subject Property necessary to give full effect to this Agreement have signed, or otherwise consented in writing to, this Agreement.

11. The Owner does further agree to record this Agreement in the Land Records of Montgomery County, Maryland, at the Owner's expense within ten (10) days of the date hereof, and shall provide the Town Manager with a certified copy of this Agreement as recorded, within thirty (30) days of said recordation.

IN WITNESS WHEREOF, the Owner has executed this Water Drainage Plan Inspection and Maintenance Agreement as of the date and year first above written.

Owner: _____ Owner: _____

Signature: _____ Signature: _____

Print name, title: _____ Print name, title: _____

[If Owner is an individual:]

STATE OF _____ :

SS:

COUNTY OF _____ :

I hereby certify that on this ____ day of _____, 20____, before me, the undersigned officer, personally appeared _____, known to me (or satisfactorily proven) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged that he/she/they executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Notary Public: _____

My Commission Expires: _____

[If Owner is an entity:]

STATE OF _____ :

SS:

COUNTY OF _____ :

I hereby certify that on this ____ day of _____, 20____, before me, the undersigned officer, personally appeared _____, known to me (or satisfactorily proven) to be the person

SURETY BOND

KNOW ALL MEN BY THESE PRESENTS:

That _____ as principal (“Principal”), and _____, as surety (“Surety”), and authorized to execute bonds and undertakings as sole surety, are held and firmly bound unto the Town of Chevy Chase, as obligee (“Obligee”), in the sum of

_____ (\$_____); for the payment thereof, well truly to be made, said Principal and Surety bind themselves, their administrators, successors and assigns, jointly and severally, firmly by these presents.

The condition of the foregoing obligation is such that:

WHEREAS, the above bounden Principal has received a building permit, no. _____ dated _____ to construct _____ at _____ from the Obligee for the Principal to perform work that requires the construction of a water drainage system in accordance with the Principal’s water drainage plan as approved by the Obligee.

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said Permit and water drainage plan during the original terms thereof, and any extensions thereof which may be granted by the Obligee, with or without notice to the Surety, and if it shall satisfy all claims and demands incurred under such Permit and water drainage plan and shall fully indemnify and save harmless the Obligee from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Obligee all outlay and expenses which the Obligee may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Permit, or water drainage plan, or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Permit or to the work or to the specifications

PROVIDED, HOWEVER, that this bond is issued subject to the following express conditions:

1. This bond shall be deemed continuous in form and shall remain in full force and effect until cancelled under Section 3, after which all liability ceases except as to any liability incurred or accrued prior to the date of such cancellation.
2. The aggregate liability of the Surety hereunder on all claims whatsoever shall not exceed the penal sum of this bond in any event.
3. The Surety reserves the right to withdraw as surety from this bond except as to any liability incurred or accrued, and may do so upon giving the Obligee ninety (90) days written notice.

SIGNED AND SEALED this ____ day of _____, 200__.

PRINCIPAL:

SURETY:

(Print company name)

By: _____(SEAL)

By: _____(SEAL)

Print Name _____

Print Name _____

Title _____

Title _____

Street _____

City _____ State ____ Zip _____

Telephone _____

Fax _____

[If Principal is an individual:]

STATE OF _____ :

SS:

COUNTY OF _____ :

I hereby certify that on this ____ day of _____, 20____, before me, the undersigned officer, personally appeared _____, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged that he/she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Notary Public: _____

My Commission Expires: _____

[If Principal is an entity:]

STATE OF _____ :

SS:

COUNTY OF _____ :

I hereby certify that on this ____ day of _____, 20____, before me, the undersigned officer, personally appeared _____, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged that he/she is an authorized officer/partner/member/trustee of Permittee, and being authorized so to do, executed the foregoing instrument on behalf of Permittee for the purposes therein contained, by signing the name of Permittee by himself/herself as _____ (title).

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Notary Public: _____

My Commission Expires: _____

[Surety:]

STATE OF _____ :

SS:

COUNTY OF _____ :

I hereby certify that on this ____ day of _____, 20____, before me, the undersigned officer, personally appeared _____, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged that he/she is an authorized officer/partner/member of Surety, and being authorized so to do, executed the foregoing instrument on behalf of Surety for the purposes therein contained, by signing the name of Surety by himself/herself as _____ (title).

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Notary Public: _____

My Commission Expires: _____

CASH PERFORMANCE BOND FOR CONSTRUCTION OF WATER DRAINAGE SYSTEM

RE: Permit No. _____ for _____ dated _____.

KNOW ALL MEN BY THESE PRESENTS as a requirement for, and condition of the above-referenced permit

(the "Permit"), _____ ("Permittee"), hereby binds themselves, and Permittee's successors and assigns, to the Town of Chevy Chase (the "Town") in the amount of _____ (\$ _____), by depositing said amount (the "Security") with the Town Manager, subject to the conditions stated below.

Performance bond paid by (Town will return to this party): _____
Name Phone Check Number

The condition of this Cash Bond is that if Permittee shall fully perform the following requirements in a manner satisfactory to the Town, then this Security shall be discharged, but otherwise it shall remain in full force and effect:

1. Faithfully complete the construction and work specified in the Permittee's water drainage plan, as approved by the Town of Chevy Chase, within the time specified by the Town Manager and comply with all the terms and conditions of the permit referenced above.
2. Comply with all applicable ordinances and requirements of the Town, Montgomery County and the State of Maryland with respect to the water drainage plan, including but not limited to all the provisions of Chapter 28 of the Town of Chevy Chase Code.
3. Save harmless the Town of Chevy Chase from any expense incurred through the failure of the Permittee, or the Permittee's agents and servants, to complete the required construction and work, or from any damages growing out of the negligence of the Permittee or the Permittee's agents or servants.
4. The Town shall retain the Security for up to the full amount thereof until Permittee promptly completes, and has accepted by the Town, all work required under the Permit and this Bond, or, when applicable, posts substitute security. If Permittee fails to satisfy any of the conditions of this Bond the Town has the option, but in no way is required to utilize the Security to complete the work covered by this Bond. Upon the satisfactory completion of the work as required, the Town shall return the Security or its proceeds less the amount of any claims, damages, or costs incurred by the Town in connection with this Bond.

WITNESS: _____

PERMITTEE: _____

By: _____

[If Permittee is an individual:]

Print Name: _____

STATE OF _____ :

Title: _____

SS:

COUNTY OF _____ :

I hereby certify that on this ____ day of _____, 20____, before me, the undersigned officer, personally appeared _____, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged that he/she executed the same for the purposes therein contained.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Notary Public: _____

My Commission Expires: _____

[If Permittee is an entity:]

STATE OF _____ :

SS:

COUNTY OF _____ :

I hereby certify that on this ____ day of _____, 20____, before me, the undersigned officer, personally appeared _____, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged that he/she is an authorized officer/partner/member/trustee of Permittee, and being authorized so to do, executed the foregoing instrument on behalf of Permittee for the purposes therein contained, by signing the name of Permittee by himself/herself as _____ (title).

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

Notary Public: _____

My Commission Expires: _____

IRREVOCABLE LETTER OF CREDIT (SAMPLE)

[ON FINANCIAL INSTITUTION'S LETTERHEAD]

Date:

Irrevocable Letter of Credit No. _____

Town of Chevy Chase:

We hereby issue in your favor this irrevocable letter of credit upon which you may draw up to an aggregate amount of _____ (\$ _____), available on demand upon the production of a written demand for payment and a written statement by the Town Manager of the Town of Chevy Chase, or the Town Manager's designee, that _____ ("Permittee") failed to complete the construction and work specified in the Permittee's approved water drainage plan, or failed to comply with all applicable ordinances and requirements of the Town, Montgomery County, and the State of Maryland with respect to the water drainage plan, including but not limited to all the provisions of Chapter 28 of the Town of Chevy Chase Code, within the time specified by the Town Manager, or otherwise failed to comply with all the terms and conditions of the permit issued by the Town of Chevy Chase, Maryland to Permittee, dated _____ (Permit No. _____), including but not limited to the requirement that the Permittee shall save harmless the Town of Chevy Chase from any expense incurred through the failure of the Permittee to complete the required construction and work, or from any damage growing out of the negligence of the Permittee or the Permittee's agents or servants.

This letter of credit shall be valid, and our obligations hereunder shall continue uninterrupted, for a period of three (3) years following the date of issuance indicated above, provided that on that date this letter of credit shall automatically be extended for an additional one (1) year period and shall further be automatically extended annually for additional one (1) year periods, unless _____ (Name of Financial Institution) notifies the Town Manager by registered letter at least thirty (30) days prior to such initial or subsequent expiration date that this letter of credit will not be extended for such additional period. We further agree that no change, extension of time, alteration or addition to the work to be performed or to the plans or specifications relating to the same, shall in any way affect our obligation under this letter of credit, and we specifically waive notice of any such change, extension of time, alteration, or addition.

We further agree that all demands for payment made under and in compliance with the terms and conditions of this letter of credit will be duly honored by us and that no defenses that may be available to the contractor will be asserted against any demand for payment made hereunder.

[NAME OF FINANCIAL INSTITUTION]

By: _____
(Signature)

(Please type or print name and title)