# SERVICES AND GOODS AGREEMENT

This Services and Goods Agreement (the "Agreement") is made and entered by and between New Braunfels Utilities, a Texas municipally owned utility ("NBU"), and Droptine Utility Construction, LLC, a Texas limited liability company (the "Vendor").

For good and valuable consideration, the receipt and sufficiency of which is acknowledged by the parties, and intending to be legally bound hereby, the parties agree as follows.

1. Term of Agreement. This Agreement will be effective on the latest date subscribed below (the "Effective Date"), and will remain in full force and effect for a period of one (1) year from December 1, 2024, to November 30, 2025 (the "Initial Term"), unless terminated as otherwise provided pursuant to the terms and conditions of this Agreement. After the expiration of the Initial Term, this Agreement shall automatically renew for four (4) successive one-year terms (each, a "Renewal Term"), unless either party provides written notice of its intent to terminate the Agreement to the other party at least thirty (30) days prior to the expiration of any term. The Initial Term and any Renewal Term(s) are collectively referred to herein as the "Term." Upon renewal, the terms and conditions of this Agreement will remain in full force and effect. In no event will the contract Terms extend beyond November 30, 2029.

# 2. Scope of Services, Purchases.

- 2.1. <u>Scope of Services</u>. The Vendor shall perform the Services described in Exhibit A (the "Services") within the timeframe specified therein.
- 2.2. <u>Purchase of Goods</u>. Unless otherwise directed in writing by NBU, the Vendor shall purchase, as needed, goods related to the Services described in Exhibit A, which shall be reimbursed in accordance with Section 3.

# 3. Payment.

- 3.1. <u>Amount</u>. NBU shall pay the Vendor in accordance with the terms and conditions herein the amount set forth in Exhibit B for the Services. Exhibit B shall contain the Total Compensation for the Vendor, which is the maximum dollar amount that the Vendor can be paid under this Agreement for Services and goods.
- 3.2. <u>Billing Period</u>. NBU shall pay the Vendor within thirty (30) days after receipt and approval of invoices to the extent the Services have been satisfactorily performed under the terms of this Agreement. NBU shall pay the Vendor for any goods purchased in accordance with the terms stated therein. All invoices provided by the Vendor to NBU shall include documentation and itemization that is satisfactory to NBU of all work completed to date. In the event NBU fails to timely pay any uncontested portion of any invoice within thirty (30) days of receipt and approval of the Vendor's invoice, the Vendor shall have the right to suspend work.
- 3.3. <u>Reimbursable Expenses and Goods</u>. In order for a Vendor expense, including the purchase of a good related to the Services hereunder, to be reimbursable under this Agreement, each

such expense must first have been described in detail and/or contemplated in Exhibit A and shall be specifically described in detail in an invoice provided by the Vendor to NBU after such expense has been incurred. All reimbursable expenses, including goods purchased in connection with performing the Services under this Agreement, shall be included in the calculation of the elements of the Total Compensation listed in Exhibit B. An expense not complying with these requirements shall not be reimbursable by NBU in NBU's sole discretion.

# 4. Obligations and Representations of Vendor.

4.1. <u>Performance and Compliance with Laws.</u> The Vendor shall perform the Services in compliance with all federal, state and local laws, statutes, ordinances, rules and regulations, and the orders and decrees of any courts, administrative, or regulatory bodies in any matter affecting the performance of this Agreement, including, without limitation, worker's compensation laws, minimum and maximum salary and wage statutes and regulations, and licensing laws and regulations. When requested in writing by NBU, the Vendor shall promptly furnish satisfactory proof of compliance to NBU.

# 4.2. Warranties.

- a. <u>Performance Warranty</u>. The Vendor warrants that the Services provided under this Agreement shall be of the highest quality and standards in accordance with such industry in this country. This warranty shall be in addition to and not in lieu of all other warranties or guaranties offered or provided by the Vendor for the Services and goods.
- b. Warranties for Goods. All manufacturer warranties and guaranties of goods provided pursuant to this Agreement shall inure to the benefit of NBU. The Vendor shall warrant all work free of defects in materials and workmanship for a period of one (1) year from the date of final acceptance of all work. The Vendor shall, within 30 calendar days after receipt of written notice, repair defects in materials and workmanship that may develop during said one (1) year period, and any damage to other work caused by such defects or the repairing of same, at the Vendor's expense, in a manner acceptable to NBU. The Vendor shall provide NBU the full original equipment manufacturer ("OEM") warranties and guaranties provided by the OEM for all Services and goods under this Agreement free of all liens, claims, and encumbrances. For example, if an OEM offers full replacement of a warranted product at no charge to the Vendor, then the Vendor shall replace such item and shall not charge NBU for such replacement.
- 4.3. Personnel. The Vendor shall provide adequate, experienced personnel, capable of and devoted to the successful completion of the Services to be performed under this Agreement. The Vendor agrees that, upon commencement of the Services to be performed under this Agreement, key personnel will not be removed or replaced without prior written notice to NBU. If key personnel are not available to perform the Services for a continuous period exceeding thirty (30) calendar days, or are expected to devote substantially less effort to the Services than initially anticipated, the Vendor shall immediately notify NBU of same and shall replace such personnel with personnel possessing substantially equal ability and qualifications.

- 4.4. <u>Licenses; Materials.</u> The Vendor shall maintain in current status all federal, state, and local licenses and permits required for the Vendor to perform the Services and operate its business. NBU has no obligation to provide the Vendor, its employees or subcontractors any business registrations or licenses required to perform the Services described in this Agreement. NBU has no obligation to provide tools, equipment, or materials to the Vendor.
- 4.5. Indemnity. To the fullest extent permitted by law, the Vendor shall indemnify, defend, and hold harmless NBU and each board member, officer, employee or agent thereof (NBU and any such person being herein called an "Indemnified Party"), for, from and against any and all losses, claims, damages, liabilities, costs and expenses (including, but not limited to, reasonable attorneys' fees and court costs) to which any such Indemnified Party may become subject, under any theory of liability whatsoever ("claims"), insofar as such claims (or actions in respect thereof) relate to, arise out of, or are caused by the goods or services provided by the Vendor, its officers, employees, agents, or any tier of subcontractor in the performance of this Agreement. The amount and type of insurance coverage requirements for the Vendor set forth herein shall in no way be construed as limiting the scope of the indemnity in this Section.
- 4.6. <u>Insurance</u>. The Vendor shall continuously during the Term comply with the following requirements regarding insurance:
  - a. <u>Insurer Qualifications</u>. Without limiting any obligations or liabilities of the Vendor, the Vendor shall purchase and maintain, at its own expense, hereinafter stipulated minimum insurance with insurance companies authorized to do business in the State of Texas with an A.M. Best, Inc. rating of A-VII or above with policies and forms satisfactory to NBU. Failure to maintain insurance as specified herein may result in termination of this Agreement at NBU's option.
  - b. No Representation of Coverage Adequacy. By requiring insurance, NBU does not represent that coverage and limits will be adequate to protect the Vendor. NBU reserves the right to review any and all of the insurance policies and/or endorsements cited in this Agreement, but has no obligation to do so. Failure to demand such evidence of full compliance with the insurance requirements set forth in this Agreement or failure to identify any insurance deficiency will not relieve the Vendor from, nor be construed or deemed a waiver of, its obligation to maintain the required insurance at all times during the performance of this Agreement.
  - c. Additional Insured. All insurance coverage and self-insured retention or deductible portions, except Workers' Compensation insurance and Professional Liability insurance, if applicable, shall name, to the fullest extent permitted by law for claims arising out of the performance of this Agreement, NBU, its agents, representatives, officers, directors, officials and employees as an Additional Insured (CG 2010 1001 and CG 2037 1001 or an equivalent on the general liability policy) as specified under the respective coverage sections of this Agreement.

- d. <u>Coverage Term</u>. All insurance required herein shall be maintained in full force and effect until all the Services required to be performed under the terms of this Agreement are satisfactorily performed, completed and formally accepted by NBU, unless specified otherwise in this Agreement.
- e. <u>Primary Insurance</u>. The Vendor's insurance shall be primary insurance with respect to performance of this Agreement and in the protection of NBU as an Additional Insured.
- f. <u>Claims Made</u>. In the event any insurance policies required by this Agreement are written on a "claims made" basis, coverage will extend, either by keeping coverage in force or purchasing an extended reporting option, for three years after the conclusion of the term of this Agreement. Such continuing coverage will be evidenced by submission of annual certificates of insurance stating applicable coverage is in force and containing provisions as required herein for the three-year period.
- g. Waiver. All policies (except for Professional Liability, if applicable), including Workers' Compensation insurance, will contain a waiver of rights of recovery (subrogation) against NBU, its agents, representatives, officials, officers and employees for any claims arising out of the Services performed by the Vendor. The Vendor shall arrange to have such subrogation waivers incorporated into each policy via formal written endorsement thereto.
- h. <u>Policy Deductibles and/or Self-Insured Retentions</u>. The policies set forth in these requirements may provide coverage that contains deductibles or self-insured retention amounts. Such deductibles or self-insured retention shall not be applicable with respect to the policy limits provided to NBU. The Vendor shall be solely responsible for any such deductible or self-insured retention amount.
- i. <u>Use of Subcontractors</u>. The Vendor shall not use subcontractors for all or any work under this Agreement without the prior written consent of NBU in its sole discretion. If any work under this Agreement is subcontracted in any way, the Vendor shall execute written agreements with its subcontractors containing the indemnification provisions set forth in this Agreement and insurance requirements set forth herein protecting NBU and the Vendor. The Vendor shall be responsible for executing any agreements with its subcontractors and obtaining certificates of insurance verifying the insurance requirements.
- j. Evidence of Insurance. Prior to the Effective Date of this Agreement, the Vendor shall provide suitable evidence of insurance to NBU, which confirms that all required insurance policies are in full force and effect. Evidence of insurance shall be in a form acceptable to NBU. Confidential information such as the policy premium may be redacted from the documents evidencing each insurance policy, provided that such redactions do not alter any of the information required by this Agreement. NBU will rely upon the requested information, including, but not limited to, certificates of insurance, endorsements, schedule of forms and endorsements, or other policy language as evidence of coverage but such acceptance and reliance will not waive or alter in any way the insurance requirements or obligations of this Agreement. If any of the policies required by this Agreement expire during the life of this Agreement, it

- will be the Vendor's responsibility to forward renewal certificates and evidence of insurance to NBU five (5) days prior to the expiration date.
- k. Required Insurance Coverage. Any of the coverage set forth below may be waived by NBU in its sole discretion, but any such waiver must be signed by an authorized representative of NBU on or before the Effective Date of this Agreement.
  - i. Commercial General Liability. The Vendor shall maintain "occurrence" form Commercial General Liability insurance with an unimpaired limit of not less than \$1,000,000 for each occurrence and a \$2,000,000 General Aggregate Limit. The policy shall cover liability arising from premises, operations, independent contractors, products, completed operations, personal injury, and property damage. The definition of insured contract cannot have any modifications as outlined in the ISO policy form CG 0001 0413. Third party action over coverage must not be specifically excluded. To the fullest extent allowed by law, for claims arising out of the performance of this Agreement, NBU, its agents, representatives, officers, officials and employees shall be cited as an Additional Insured. If any Excess insurance is utilized to fulfill the requirements of this subsection, such Excess insurance shall be "follow form" equal or broader in coverage scope than underlying insurance.
  - ii. Auto Liability. The Vendor shall maintain Automobile Liability insurance with a limit of \$1,000,000 combined single limit on the Vendor's owned or hired and non-owned vehicles, as applicable, assigned to or used in the performance of the Services by the Vendor under this Agreement. To the fullest extent allowed by law, for claims arising out of the performance of this Agreement, NBU, its agents, representatives, officers, directors, officials and employees shall be cited as an Additional Insured. If any Excess insurance is utilized to fulfill the requirements of this subsection, such Excess insurance shall be "follow form" equal or broader in coverage scope than underlying insurance.
  - iii. Workers' Compensation and Employer's Liability Insurance. The Vendor shall maintain Workers' Compensation insurance to cover the Vendor's employees engaged in the performance of the Services under this Agreement and shall also maintain Employers Liability Insurance of not less than \$1,000,000 for each accident, \$1,000,000 disease for each employee and \$1,000,000 disease policy limit.
- l. <u>Cancellation and Expiration Notice</u>. Insurance required herein shall not expire, be canceled, or be materially changed without thirty (30) days' prior written notice to NBU.

# 4.7. Additional Representations.

a. <u>Prohibited Gifts, Bonus, Commission, Money, and Other Consideration</u>. The Vendor represents and warrants that the Vendor has not given, made, promised or paid, nor offered to give, make, promise or pay any gift, bonus, commission, money or other consideration to any person as an inducement to or in order to obtain the work to be

provided to NBU under this Agreement. Violation of this Section shall subject this Agreement to termination under the Termination provisions of this Agreement. The Vendor further agrees that the Vendor shall not accept any gift, bonus, commission, money, or other consideration from any person (other than from NBU pursuant to this Agreement) for any of the Services performed by the Vendor under or related to this Agreement. If any such gift, bonus, commission, money, or other consideration is received by or offered to the Vendor, the Vendor shall immediately report that fact to NBU and, NBU, in its sole discretion, may terminate this Agreement.

- b. Prohibition on Contracts with Companies Boycotting Israel. The Vendor hereby verifies that it and its parent company, wholly- or majority owned subsidiaries, and other affiliates, if any, do not boycott Israel and, to the extent this Agreement is a contract for goods or services, will not boycott Israel during the term of this Agreement as described in Chapter 2271 of the Texas Government Code, as amended. The foregoing verification is made solely to comply with Chapter 2271.002 of the Texas Government Code, as amended, and to the extent such Section does not contravene applicable federal and State law. As used in the foregoing verification, "boycott Israel" means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes. The Vendor understands "affiliate" to mean an entity that controls, is controlled by, or is under common control with the Vendor and exists to make a profit.
- c. Contracts with Companies Engaged in Business with Iran, Sudan, or Foreign Terrorist Organizations Prohibited. The Vendor represents that neither it nor any of its parent company, wholly- or majority-owned subsidiaries, and other affiliates is a company identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 2252.153 or Section 2270.0201, Texas Government Code, as amended, and posted on any of the following pages of such officer's internet website:

https://comptroller.texas.gov/purchasing/docs/sudan-list.pdf, https://comptroller.texas.gov/purchasing/docs/iran-list.pdf, or https://comptroller.texas.gov/purchasing/docs/fto-list.pdf.

The foregoing representation is made solely to comply with Section 2252.152, Texas Government Code, as amended, and to the extent such Section does not contravene applicable federal or State law and excludes the Vendor and each of its parent company, wholly- or majority-owned subsidiaries, and other affiliates, if any, that the United States government has affirmatively declared to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization. The Vendor understands "affiliate" to mean an entity that controls, is controlled by, or is under common control with the Vendor and exists to make a profit.

- d. <u>Prohibition on Contracts with Companies in China, Iran, North Korea, or Russia</u>. If the Vendor is granted direct or remote access to or control of critical infrastructure in the State of Texas under this Agreement, the Vendor represents the following:
  - i. it is not owned by or the majority of stock or other ownership interest in the Vendor is not held or controlled by:
    - 1. individuals who are citizens of China, Iran, North Korea, Russia, or a country designated by the Governor of Texas as a threat to critical infrastructure under Section 2275.0103 of the Texas Government Code, as amended ("designated country"); or
    - 2. a company or other entity, including a governmental entity, that is owned or controlled by citizens of or is directly controlled by the government of China, Iran, North Korea, Russia, or a designated country; or
  - ii. it is not headquartered in China, Iran, North Korea, Russia, or a designated country.

The foregoing representation is made solely to comply with Chapter 2275 of the Texas Government Code, as amended, and to the extent such Section does not contravene applicable federal or State law. As used in the foregoing verification, "critical infrastructure" means a communication infrastructure system, cybersecurity system, electric grid, hazardous waste treatment system, or water treatment facility. "Affiliate," with respect to a company entering into an agreement in which the critical infrastructure is electric grid equipment, has the meaning assigned by the protocols of the independent organization certified under Section 39.151, Utilities Code, for the ERCOT power region.

e. <u>Prohibition on Contracts with Companies Boycotting Energy Companies</u>. The Vendor hereby verifies that it and its parent company, wholly-or majority owned subsidiaries, and other affiliates, if any, do not boycott energy companies and, to the extent this Agreement is a contract for goods or services, will not boycott energy companies during the term of this Agreement as described in Chapter 2276 of the Texas Government Code, as amended.

The foregoing verification is made solely to comply with Section 2276.002 of the Texas Government Code, as amended, and to the extent such Section does not contravene applicable federal and State law. As used in the foregoing verification, "boycott energy companies" has the meaning used in Section 809.001 of the Texas Government Code, as amended. The Vendor understands "affiliate" to mean an entity that controls, is controlled by, or is under common control with the Vendor and exists to make a profit.

f. <u>Prohibition on Contracts with Companies that Discriminate Against Firearm and Ammunition Industries</u>. The Vendor hereby verifies that it and its parent company,

wholly-or majority owned subsidiaries, and other affiliates, if any, do not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and, to the extent this Agreement is a contract for goods or services, will not discriminate against a firearm entity or firearm trade association during the term of this Agreement as described in Chapter 2274 of the Texas Government Code, as amended.

The foregoing verification is made solely to comply with Section 2274.002 of the Texas Government Code, as amended, and to the extent such Section does not contravene applicable federal and State law. As used in the foregoing verification, "discriminate against a firearm entity or firearm trade association" has the meaning used in Section 2274.001(3) of the Texas Government Code, as amended. The Vendor understands "affiliate" to mean an entity that controls, is controlled by, or is under common control with the Vendor and exists to make a profit.

g. <u>Disclosure of Business Relationships/Affiliations; Conflict of Interest Questionnaire.</u> The Vendor represents that it is in compliance with the applicable filing and disclosure requirements of Chapter 176 of the Texas Local Government Code, as amended.

# 5. Obligations and Representations of NBU.

- 5.1. <u>Authority to Enter into Agreement</u>. To the fullest extent authorized by law, NBU warrants that it has authority to execute and enter into this legally binding Agreement.
- 5.2. <u>Binding Obligation</u>. This Agreement constitutes a legal, valid, and binding obligation of NBU enforceable against it in accordance with the terms herein.

# 6. Termination.

- 6.1. For NBU's Convenience. This Agreement is for the convenience of NBU and, as such, may be terminated by NBU for any reason upon thirty (30) days' written notice by NBU to the Vendor. Upon termination for convenience, the Vendor will be paid for the Services performed to the termination date less any offsets to which NBU may be entitled under the terms of this Agreement. By written notice to NBU, the Vendor may suspend work if the Vendor reasonably determines that working conditions at the site (outside the Vendor's control) are unsafe, or in violation of applicable laws, or in the event NBU has not made timely payment in accordance with this Agreement, or for other circumstances not caused by the Vendor that are materially interfering with the normal progress of the work. The Vendor's suspension of work hereunder shall be without prejudice to any other remedy of the Vendor at law or equity.
- 6.2. <u>For Cause.</u> If either party violates any provision or fails to perform any obligation of this Agreement and such party fails to cure its nonperformance within thirty (30) days after written notice of nonperformance is given by the non-defaulting party, such party will be in default. In the event of such default, the non-defaulting party may terminate this Agreement immediately for cause and will have all remedies that are available to it at law or in equity including, without limitation, the remedy of specific performance. If the nature of the defaulting party's nonperformance is such that it cannot reasonably be cured within

thirty (30) days, then the defaulting party will have such additional period of time as may be reasonably necessary under the circumstances, provided the defaulting party immediately (i) provides written notice to the non-defaulting party and (ii) commences to cure its nonperformance and thereafter diligently continues to completion the cure of its nonperformance. In no event will any such cure period exceed ninety (90) days. Only one notice of nonperformance will be required during the term of this Agreement and in the event of a second breach or violation, the non-defaulting party may immediately terminate this Agreement without notice to the defaulting party. In the event of any termination for cause by NBU, payment will be made by NBU to the Vendor for the undisputed portion of its fee due as of the termination date less any offsets to which NBU may be entitled under the terms of this Agreement.

- 6.3. Non-Collusion. If NBU determines that the Vendor gave, made, promised, paid or offered any gift, bonus, commission, money, or other consideration to NBU or any of its officers, agents, or employees to secure this Agreement, or if the Vendor otherwise violated its obligations under Section 4.7(a), NBU may, in its sole discretion, terminate this Agreement.
- 6.4. Agreement Subject to Appropriation. This Agreement is subject to appropriation of funds. The provisions of this Agreement for payment of funds by NBU shall be effective when funds are appropriated for purposes of this Agreement and are actually available for payment. NBU shall be the sole judge and authority in determining the availability of funds under this Agreement and NBU shall keep the Vendor fully informed as to the availability of funds for the Agreement. The obligation of NBU to make any payment pursuant to this Agreement is a current expense of NBU, payable exclusively from such annual appropriations, and is not a general obligation or indebtedness of NBU. If sufficient funds are not appropriated to pay the amounts as set forth in this Agreement during any immediately succeeding fiscal year, this Agreement shall terminate at the end of the then-current fiscal year and NBU and the Vendor shall be relieved of any subsequent obligation under this Agreement.

# 7. Confidentiality; Texas Public Information Act.

- 7.1. Confidentiality of Records. The Vendor shall establish and maintain procedures and controls that are acceptable to NBU for the purpose of ensuring that information contained in its records or obtained from NBU or from others in carrying out the Vendor's obligations under this Agreement shall not be used or disclosed by it, its agents, officers, or employees, except as required to perform the Vendor's duties under this Agreement. Persons requesting such information should be immediately referred to NBU. The Vendor also agrees that any information pertaining to individual persons shall not be divulged other than to employees or officers of the Vendor as needed for the performance of duties under this Agreement.
- 7.2. <u>Confidential Information</u>. To the extent that confidential and proprietary information of each party ("Confidential Information") is exchanged and received in connection with the Services or goods, each party agrees not to use the other party's Confidential Information except in the performance of, or as authorized by, this Agreement, and not to disclose, sell, license, distribute or otherwise make available such information to third parties. Use

by third party contractors may be permitted so long as such contractor has a need to know and is required to maintain the confidentiality of such information as required by this Section. "Confidential Information" includes (but is not limited to) the Vendor's Confidential Information (as defined below), and does not include: (i) information that was publicly available at the time of disclosure or that subsequently becomes publicly available other than by a breach of this provision, (ii) information previously known by or developed by the receiving party independent of the Confidential Information or (iii) information that the receiving party rightfully obtains without restrictions on use and disclosure.

- 7.3. <u>Vendor Confidential Information</u>. "Vendor Confidential Information" means any preexisting proprietary or Confidential Information of the Vendor created by the Vendor and used to perform the Services, or included in any goods provided, including but not limited to software, appliances, methodologies, code, templates, tools, records, data or other intellectual property shall remain the exclusive property of the Vendor.
- 7.4. <u>Conflict with Applicable Statute or Law.</u> Nothing in this Section is intended to reduce or conflict with any duty, obligation or provision contained in the Texas Public Information Act, the Texas Open Meetings Act, or any other applicable statute or rule.
- 7.5. <u>Texas Public Information Act.</u> The Vendor recognizes that NBU is subject to the disclosure requirements of the Texas Public Information Act (the "PIA"). As part of its obligations within this Agreement, the Vendor agrees, at no additional cost to NBU, to cooperate with NBU for any particular needs or obligations arising out of the NBU's obligations under the PIA. This acknowledgment and obligation are in addition to and complementary to the NBU's audit rights in Section 9.13.

This provision applies if the Agreement has a stated expenditure of at least \$1 million in public funds for the purchase of goods or services by NBU or results in the expenditure of at least \$1 million in public funds for the purchase of goods or services by NBU in a fiscal year of NBU.

The Vendor must (1) preserve all contracting information related to the Agreement as provided by the records retention requirements applicable to NBU for the duration of the Agreement; (2) promptly provide to NBU any contracting information related to the Agreement that is in the custody or possession of the Vendor on request of NBU; and (3) on completion of the Agreement, either:

- (i) provide at no cost to NBU all contracting information related to the Agreement that is in the custody or possession of the Vendor; or
- (ii) preserve the contracting information related to the Agreement as provided by the records retention requirements applicable to NBU.

The requirements of Subchapter J, Chapter 552, Texas Government Code, may apply to this Agreement and the Vendor agrees that the Agreement can be terminated if the Vendor knowingly or intentionally fails to comply with a requirement of that subchapter.

# 8. Information Technology and Intellectual Property Infringement.

- 8.1. Limited Access. If necessary for the fulfillment of the Agreement, NBU may provide the Vendor with non-exclusive, limited access to NBU's information technology infrastructure. The Vendor understands and agrees to abide by NBU policies, standards, regulations and restrictions regarding access and usage of NBU's information technology infrastructure. The Vendor shall reasonably enforce such policies, standards, regulations and restrictions with all the Vendor's employees, agents or any tier of subcontractor granted access in the performance of this Agreement, and shall be granted and authorize only such access as may be necessary for the purpose of fulfilling the requirements of the Agreement. The Vendor's employees, agents and subcontractors must receive prior, written approval from NBU before being granted access to NBU's information technology infrastructure and data and NBU, in its sole determination, shall determine accessibility and limitations thereto. The Vendor agrees that the requirements of this Section shall be incorporated into all subcontractor agreements entered into by the Vendor. It is further agreed that a violation of this Section shall be deemed to cause irreparable harm that justifies injunctive relief in court. A violation of this Section may result in immediate termination of this Agreement without notice.
- 8.2. <u>Data Confidentiality.</u> All data, regardless of form, including originals, images and reproductions, prepared by, obtained by or transmitted to the Vendor in connection with this Agreement is confidential, proprietary information owned by NBU. Except as specifically provided in this Agreement, the Vendor shall not intentionally disclose data generated in the performance of the Services to any third party without the prior, written consent of NBU.
- 8.3. <u>Data Security.</u> Personal identifying information, financial account information, or restricted NBU information, whether electronic format or hard copy, is confidential and must be secured and protected at all times to avoid unauthorized access. At a minimum, the Vendor must encrypt or password-protect electronic files. This includes data saved to laptop computers, computerized devices or removable storage devices.
- 8.4. Compromised Security. In the event that data collected or obtained by the Vendor in connection with this Agreement is believed to have been compromised or in the event of a Security Incident, as defined by Section 2054.603 of the Texas Government Code, the Vendor shall notify NBU within twenty-four (24) hours of discovery of such compromise or Security Incident. The Vendor shall indemnify, defend, and hold NBU HARMLESS FROM ANY CLAIMS RESULTING FROM VENDOR'S FAILURE TO COMPLY WITH ITS OBLIGATIONS UNDER THIS SECTION.
- 8.5. Intellectual Property Infringement. THE VENDOR SHALL DEFEND AND INDEMNIFY NBU AGAINST ANY COSTS, LIABILITIES OR DAMAGES (INCLUDING ATTORNEY'S FEES) ARISING FROM A CLAIM THAT NBU'S AUTHORIZED USE OF ANY SERVICE OR GOODS PURCHASED PURSUANT TO THIS AGREEMENT INFRINGES ANY PATENT, COPYRIGHT, TRADEMARK OR TRADE SECRET. NBU agrees to notify the Vendor in writing of any such claim or suit that NBU receives. Notwithstanding NBU's agreement to notify the Vendor of such claim or suit, NBU's failure to so notify the Vendor shall not diminish the Vendor's indemnity obligations hereunder. The Vendor shall have control of any such suit and NBU shall

cooperate with the Vendor in connection with its defense at the expense of the Vendor. If NBU is enjoined from using any portion of any Service or goods purchased pursuant to this Agreement, or if the Vendor believes that such Service or good is likely to become the subject of an infringement claim, the Vendor shall (i) obtain the right for NBU to continue to use such Service or good or (ii) replace or modify the Service or good so as to make it non-infringing and equal to the functionality of such Service or good described in this Agreement.

# 9. Miscellaneous.

- 9.1. <u>Independent Contractor.</u> The Vendor acknowledges that the Vendor is an independent contractor of NBU and is not an employee, agent, official or representative of NBU. The Vendor shall not represent, either expressly or through implication, that the Vendor is an employee, agent, official or representative of NBU. Income taxes, self-employment taxes, social security taxes and the like shall be the sole responsibility of the Vendor.
- 9.2. Governing Law; Venue. This Agreement and all of the transactions contemplated herein shall be governed by and construed in accordance with the laws of the State of Texas. The provisions and obligations of this Agreement are performable in Comal County, Texas such that exclusive venue for any action arising out of this Agreement shall be in Comal County, Texas.
- 9.3. <u>Amendments.</u> This Agreement may only be amended, modified, or supplemented by a written amendment signed by persons duly authorized to enter into contracts on behalf of NBU and the Vendor.
- 9.4. <u>Provisions Required by Law.</u> Each and every provision of law and any clause required by law to be in the Agreement shall be read and enforced as though it were included herein and, if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, the Agreement shall promptly be physically amended to make such insertion or correction.
- 9.5. <u>Severability</u>. If any term or provision of this Agreement is held to be invalid, illegal, or unenforceable in any respect under applicable law, the legality, validity or enforceability of the remaining terms or provisions of this Agreement shall not be affected thereby, and this Agreement shall be construed as if such invalid, illegal, or unenforceable provision had never been contained herein.
- 9.6. No Assignment. Neither party shall have the right to assign that party's interest in this Agreement without the prior written consent of the other party. Any purported assignment in violation of this Section shall be null and void.
- 9.7. Subcontractors. The Vendor shall not transfer any portion of the work related to the Services under this Agreement to any subcontractor without the prior written consent of NBU, which consent shall not be unreasonably withheld. The approval or acquiescence of NBU in the subletting of any work shall not relieve the Vendor of any responsibility for work done by such subcontractor. Failure to pay subcontractors in a timely manner pursuant to any subcontract shall be a material breach of this Agreement by the Vendor.

- 9.8. Waiver. No waiver by any party of any of the provisions of this Agreement shall be effective unless explicitly set forth in writing and signed by the party so waiving. No waiver of any breach or violation of any term of this Agreement shall be deemed or construed to constitute a waiver of any other breach or violation, whether concurrent or subsequent, and whether of the same or of a different type of breach or violation. No failure to exercise, or delay in exercising, any right, remedy, power, or privilege arising from this Agreement shall operate or be construed as a waiver thereof; nor shall any single or partial exercise of any right, remedy, power, or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power, or privilege.
- 9.9. <u>Attorneys' Fees.</u> In the event either party brings any action for any relief, declaratory or otherwise, arising out of this Agreement or on account of any breach or default hereof, the prevailing party will be entitled to receive from the other party reasonable attorneys' fees and reasonable costs and expenses, which will be deemed to have accrued on the commencement of such action.
- 9.10. <u>Liens.</u> All goods or services provided under this Agreement shall be free of all liens and, if NBU requests, a formal release of all liens shall be delivered to NBU.
- 9.11. Offset for Damages, Delinquent Fees or Taxes. In addition to all other remedies at law or equity, NBU may offset from any money due to the Vendor any amount the Vendor owes to NBU for damages resulting from breach or deficiencies in performance or breach of any obligation under this Agreement, including but not limited to all costs, expenses, fines, fees, and charges associated with obtaining performance from alternative sources, shipping, handling, goods, equipment rental, travel expenses and associated costs. NBU may offset from any money due to the Vendor any amount the Vendor owes to NBU for delinquent fees, including any interest or penalties.
- 9.12. Notice. Any notice or other communication required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given if (i) delivered to the party at the address set forth below, (ii) deposited in the U.S. Mail, registered or certified, return receipt requested, to the address set forth below, or (iii) given to a recognized and reputable overnight delivery service, to the address set forth below:

# To NBU:

New Braunfels Utilities Attn: Director of Water Services 263 Main Plaza New Braunfels, TX 78130

With a copy to:

Purchasing Manager New Braunfels Utilities 355 FM 306 New Braunfels, TX 78130

# To the Vendor:

Droptine Utility Construction, LLC 2216 Waterford Grace New Braunfels, Texas 78130

or at such other address, and to the attention of such other person or officer, as any party may designate by providing thirty (30) days' prior written notice of such change to the other party in the manner set forth in this Section. Notices shall be deemed received (i) when delivered to the party, (ii) three business days after being placed in the U.S. Mail, properly addressed, with sufficient postage or (iii) the following business day after being given to a recognized overnight delivery service, with the person giving the notice paying all required charges and instructing the delivery service to deliver on the following business day. If a copy of a notice is also given to a party's counsel or other recipient, the provisions above governing the date on which a notice is deemed to have been received by a party shall mean and refer to the date on which the party, and not its counsel or other recipient to which a copy of the notice may be sent, is deemed to have received the notice.

- 9.13. <u>Right to Audit.</u> NBU shall have the right to examine and audit the books and records of the Vendor with regard to the Services and/or goods obtained pursuant to this Agreement, or any subsequent changes, at any reasonable time. Such books and records shall be maintained in accordance with generally accepted principles of accounting and shall be adequate to enable determination of: (1) the substantiation and accuracy of any payments required to be made under this Agreement; and (2) compliance with the provisions of this Agreement.
- 9.14. <u>Paragraph Headings</u>; <u>Construction</u>. The paragraph headings contained in this Agreement are for convenience only and shall in no way enlarge or limit the scope or meaning of the various and several paragraphs hereof. Both parties have participated in the negotiation and preparation of this Agreement and this Agreement shall not be construed either more or less strongly against or for either party.
- 9.15. <u>Binding Effect.</u> Except as limited herein, the terms and provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, devisees, personal and legal representatives, successors and assigns.
- 9.16. <u>Gender.</u> Within this Agreement, words of any gender shall be held and construed to include any other gender, and words in the singular number shall be held and construed to include the plural, unless the context otherwise requires.
- 9.17. <u>Multiple Counterparts</u>. This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, and all of which shall constitute but one and the same instrument.
- 9.18. <u>Exhibits.</u> All Exhibits to this Agreement are incorporated herein by reference for all purposes wherever reference is made to the same.

- 9.19. <u>Conflicting Terms.</u> In the case of any conflicts between the terms of this Agreement and an Exhibit to this Agreement, the statements in the body of this Agreement shall govern.
- 9.20. <u>Relationship of Parties</u>. Nothing contained in this Agreement shall be deemed or construed by the parties hereto or by any third party to create the relationship of principal and agent or of partnership or of joint venture or of any association whatsoever between the parties, it being expressly understood and agreed that no provision contained in this Agreement nor any act or acts of the parties hereto shall be deemed to create any relationship between the parties other than the relationship of independent parties contracting with each other solely for the purpose of effecting the provisions of this Agreement.
- 9.21. No Third-Party Beneficiaries. This Agreement is for the sole benefit of the parties hereto and their respective assigns and nothing herein, express or implied, is intended to or shall confer upon any other person or entity any legal or equitable right, benefit, or remedy of any nature whatsoever under or by reason of this Agreement.
- 9.22. <u>Non-Exclusive Contract.</u> This Agreement is entered into with the understanding and agreement that it is for the sole convenience of NBU. NBU reserves the right to obtain like goods and services from another source when necessary.
- 9.23. Force Majeure. If the performance of any covenant or obligation to be performed hereunder by any party is delayed as a result of circumstances that are beyond the reasonable control of such party (which circumstances may include, without limitation, acts of God, war, acts of civil disobedience, pandemics, epidemics, fire or other casualty, shortage of materials, adverse weather conditions (such as, by way of illustration and not of limitation, severe rain storms or below freezing temperatures, or tornados), labor action, strikes or similar acts, moratoriums or regulations or actions by governmental authorities), the time for such performance shall be extended by the amount of time of such delay, but no longer than the amount of time reasonably occasioned by the delay. In no event will any delay or failure of performance caused by any force majeure condition extend this Agreement beyond its stated Term unless both parties agree in writing to such extension in an amendment to this Agreement. The party claiming delay of performance as a result of any of the foregoing force majeure events shall deliver written notice of the commencement of any such delay resulting from such force majeure event not later than seven (7) days after the claiming party becomes aware of the same, and if the claiming party fails to so notify the other party of the occurrence of a force majeure event causing such delay and the other party shall not otherwise be aware of such force majeure event, the claiming party shall not be entitled to avail itself of the provisions for the extension of performance contained in this subsection
- 9.24. <u>Dispute Resolution.</u> In accordance with the provisions of Subchapter I, Chapter 271 of the Texas Local Government Code, as amended, the parties agree that, prior to instituting any lawsuit or other proceeding arising from a dispute under this Agreement, the parties shall first attempt to resolve the dispute by taking the steps described in this Section. First, the dissatisfied party shall deliver to the other party a written notice substantially describing the nature of the dispute, which notice shall request a written response to be delivered to the dissatisfied party not less than five (5) business days after receipt of the notice of dispute. Second, if the response does not reasonably resolve the dispute, in the opinion of

the dissatisfied party, the dissatisfied party shall give written notice within five (5) business days to that effect to the other party whereupon each party shall appoint a person having authority over the activities of the respective parties who shall promptly meet, in person, in an effort to resolve the dispute. Third, if those persons cannot or do not resolve the dispute, then the parties shall each appoint a person from the highest tier of managerial responsibility within each respective party, who shall then promptly meet, in person, in an effort to resolve the dispute.

- 9.25. <u>Survival</u>. The sections of this Agreement that by their terms are intended to survive the termination of this Agreement shall so survive.
- 9.26. Entire Agreement; Interpretation; Parol Evidence. This Agreement and the related Exhibits constitute the entire agreement of the parties with respect to the subject matter, and all previous agreements, whether oral or written, entered into prior to this Agreement are hereby revoked and superseded. No representations, inducements or oral agreements have been made by any of the parties except as expressly set forth in this Agreement. This Agreement shall be construed and interpreted according to its plain meaning, and no presumption shall be deemed to apply in favor of, or against the party drafting the Agreement.
- 9.27. Electronic Signatures. Pursuant to Chapter 322 of the Texas Business and Commerce Code, as amended, the parties agree to the use of electronic signatures herein and that the use of an electronic signature, whether digital or encrypted, is intended to have the same force and effect as a manual signature. Electronic signature means any electronic sound, symbol or process attached to or logically associated with a record and executed and adopted by a party with the intent to sign such record, including facsimile or e-mail electronic signatures. Each party further agrees that if it agrees to conduct a transaction by electronic means in this Agreement, it may refuse to conduct other transactions by electronic means and that such right may not be waived by this Agreement.

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IN WITNESS WHEREOF, the parties hereto have executed this Agreement on this the of, 2024.	day
NBU:	
NEW BRAUNFELS UTILITIES, a Texas municipally owned utility	
By:	
Name: Ryan Kelso Title: Chief Executive Officer	
VENDOR:	
DROPTINE UTILITY CONSTRUCTION, LLC, a Texas limited liability company  By: Name: Pamon Davila Title: armer	

# Exhibit A – Scope of Services

The Vendor shall provide all labor, material, and equipment necessary to provide manhole rehabilitation services. The Services described herein include the minimum requirements for the rehabilitation of wastewater manholes and the products used therein, including the work necessary to install new bolted wastewater manhole frames and covers, adjust existing wastewater manholes to grade, apply chemical grout to stop active leaks, apply cementitious linings to wastewater manhole interior walls and benches, apply coating products to wastewater manhole interior walls, benches and/or inverts, and repair/rebuild existing wastewater manhole benches and/or inverts as directed by the NBU representative. The Vendor shall be responsible for site restoration including final pavement repairs, seeding and sodding to restore all sites to their original or better conditions.

The Vendor understands and agrees that NBU makes no minimum guarantees with regard to the amount of services under this Agreement.

#### 1. GENERAL

#### 1.1. DEFINITIONS

- A. Products generally referred to herein as Rehabilitation Component Systems (each product individually referred to as a "System," and collectively the "Systems") include the following:
  - 1. chemical grout a chemical sealant solution containing principle chemical sealant constituent, initiator and catalysts specifically recommended for the purpose of reducing or eliminating groundwater inflow to allow application of a cementitious liner;
  - 2. coating any material that will form a continuous film over a surface for repair, elimination of leaks and corrosion protection;
  - 3. grout a mixture of cement, sand and water to fill voids;
  - 4. cementitious infiltration control very fast setting cementitious material designed to stop active leaks in the wastewater manholes;
  - 5. lining a cementitious material used for manhole reconstruction, elimination of leaks and corrosion protection;
  - 6. patching and invert repair rapid setting cementitious material to fill voids and repair inverts;

# 1.2. VENDOR QUALIFICATIONS

A. The Vendor's applicators of structural and non-structural wastewater manhole coating and lining Systems shall be certified by the product manufacturer in the handling, mixing, and application of the product.

# 1.3. REFERENCES

- A. The work shall be performed in accordance with the instructions given in the National Association of Sewer Service Companies ("NASSCO") Performance Specification Guideline for Manhole Rehabilitation ("NPSGMR").
- B. The NPSGMR references the following standards and specifications, which are incorporated by reference into this Agreement, and shall be the latest edition and revision thereof.

# 1. CHEMICAL GROUTS:

a. American Society for Testing and Materials ("ASTM") F2414-04R16 Standard Practice for Grouting.

# 2. CEMENTITIOUS RESTORATION:

- a. ASTM F2551-09R16 Standard Practice for Installing a Protective Cementitious Liner System in Sanitary Sewer Manholes.
- b. ASTM C-150-07 Standard Specification for Portland cement.
- c. ASTM C33/C33M-18 Standard Specification for Concrete Aggregates.
- d. ASTM C78-09 Standard Test Method of Flexural Strength of Concrete; Using Simple Beam with Third Point Loading.
- e. ASTM C109/C109M-20 Standard Test Method for Compressive Strength of Hydraulic-Cement Mortars (Using 2 in. or [50-mm] Cube Specimens).
- f. ASTM C157/C157M-17 Standard Test Method for Length Change of Hardened Hydraulic-Cement Mortar Cubes.
- g. ASTM C267-20 Test Methods for Chemical Resistance of Mortars, Grouts and Monolithic Surfacings and Polymer Concretes.
- h. ASTM C293/C293M-16 Standard Test Method for Flexural Strength of Concrete (Using Simple Beam with Center-Point Loading).
- i. ASTM C309-19 Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
- j. ASTM C321-00R12 Standard Test Method for Bond Strength of Chemical- Resistant Mortars.
- k. ASTM C348-21 Standard Test Method for Flexural Strength of Hydraulic-Cement Mortars.
- 1. ASTM C494/C494M-17 Standard Specification for Chemical Admixtures for Concrete.
- m. ASTM C496/C496M-17 Standard Test Method for Splitting Tensile Strength of Concrete Specimens.

- n. ASTM C882/C882M-20 Standard Test Method for Bond Strength of Epoxy-Resin SYSTEMs Used With Concrete by Slant Shear.
- o. ASTM C952-12 Standard Test Method for Bond Strength of Mortar to Masonry Units.

# 3. PROTECTIVE COATINGS:

- a. ASTM D543-21 Resistance of Plastics to Chemical Reagents.
- b. ASTM D638-14 Tensile Properties of Plastics.
- c. ASTM D695-23 Compressive Properties of Rigid Plastics.
- d. ASTM D2240-15R21 Standard Test Method for Rubber Property-Durometer Hardness.
- e. ASTM D4060-19 Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abrader.
- f. ASTM D4414-95R20 Standard Practice for the Measurement of Wet Film Thickness of Organic Coatings by Notched Gages.
- g. ASTM D4541-09 Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers.
- h. ASTM D4787-13R18 Continuity Verification of Liquid or Sheet Linings Applied to Concrete Substrates.
- i. ASTM D6132-13R17 Standard Test Method for Nondestructive Measurement of Dry Film Thickness of Applied Organic Coatings Using an Ultrasonic Coating Thickness Gage.
- j. ASTM D7234-21 Standard Test Method for Pull-off Strength of Coatings on Concrete Using Portable Pull-Off Adhesion Testers.
- k. ASTM G210-13R18 Severe Wastewater Analysis Test.
- 4. National Association of Corrosion Engineers ("NACE") SP0188-2024 Discontinuity (Holiday) Testing of New Protective Coatings on Conductive Substrates.

# 5. SURFACE PREPARATION:

- a. The Society for Protective Coatings ("SSPC") SP-13/NACE No. 6-Surface Preparation of Concrete.
- b. International Concrete Repair Institute, Inc. ("ICRI") Technical Guide No. 310.2R-2013.

#### 1.4. SUBMITTALS

- A. Prior to performing any work for the rehabilitation of wastewater manholes proposed under this Agreement, the Vendor shall submit a Work Authorization in the form attached as Exhibit C setting forth specific requirements as to location, conditions, procedures, timeframe for services, materials to be used, and associated services. Submittals shall include the following:
  - 1. System material type and manufacturer to be used including: product data sheets, ASTM references, material composition, manufacturer's recommended specifications, component physical properties and chemical resistance;
  - 2. manufacturer's detailed description of the recommended procedures for handling and storing products including shelf life history and proposed method for monitoring temperatures of the storage location, safety requirements and Material Safety Data Sheet ("MSDS") documents;
  - 3. manufacturer's detailed description of the recommended material installation/application process including environmental conditions, mixing, additives, set time, cure time (return to service), and all equipment required for quality product delivery;
  - 4. manufacturer's detailed description of all required field-testing processes and procedures;
  - 5. copies of independent testing performed on the rehabilitation component indicating that the product meets the requirements as specified in these contract documents and the manufacturer's design;
  - 6. technical data sheet and project specific data for wastewater manhole repair products to be used in conjunction with each rehabilitation component(s) including application cure time and surface preparation procedures;
  - 7. products shall be clearly labeled with the item, manufacturer, batch, lot number and expiration date;
  - 8. method to capture and prevent material removed from pressure washing and surface preparation of substrate from flowing downstream;
  - 9. pressure washing equipment specifications;
  - 10. a by-pass pumping plan if applicable to the Systems being applied;
  - 11. a confined space entry plan;
  - 12. an excavation safety system plan;
  - 13. a certified statement from the manufacturer that the Vendor/installer is an approved installer of the System with certificates of completed training for product mixer and applicator for each rehabilitation component;

- 14. for each wastewater manhole rehabilitation, a complete and accurate record of all Systems installed/applied shall be prepared in the form of a report by the Vendor and submitted electronically to NBU within five (5) days of completing the work; and
- 15. a list of primary and secondary contacts available for emergency work.

#### **1.5. SAFETY**

- A. The Vendor shall conform to all work safety requirements of pertinent regulatory agencies, and shall secure the site for working conditions in compliance with the same. The Vendor shall erect such signs and other devices as necessary for the safety of the worksite and meet the Texas Manual on Uniform Traffic Control Devices ("TMUTCD") guidelines.
- B. The Vendor shall perform all work in accordance with applicable Occupational Safety and Health Administration safety standards, emphasizing requirements for entering confined spaces, the equipment being utilized for wastewater manhole rehabilitation components, and the protection of workers from silica dust.
- C. The Vendor shall have on the job site a minimum of the following safety equipment at all times:
  - 1. a gas monitor capable of testing and detecting combustible gas, oxygen deficiency, carbon monoxide and hydrogen sulfide;
  - 2. a confined space access and retrieval winch system;
  - 3. ventilating fans with 12" diameter ventilation hoses;
  - 4. a particulate respirator;
  - 5. safety harness and fall protection devices; and
  - 6. all equipment to be available for use, in sufficient quantity by the Vendor for the duration of the contract agreement.
- D. The Vendor shall conduct all entries into or work performed within confined spaces in accordance with the U.S. Department of Health and Human Services/National Institute for Occupational Safety and Health Publication No. 87-113, and A Guide to Safety in Confined Spaces.
- E. The Vendor shall electronically submit a proposed safety plan to the NBU representative, prior to beginning any work, identifying all competent persons, equipment and operating procedures. The plan shall include a description of the daily safety program and daily safety meeting for the job site and all emergency procedures to be implemented in the event of a safety incident. All work by the Vendor shall be conducted in accordance with the Vendor's submitted safety plan.

# 1.6. STORAGE AND HANDLING

- A. The Vendor shall keep Systems dry, protected from weather and stored under cover and in accordance with manufacturer's recommendation.
- B. The Vendor shall store cementitious and coating products at temperatures recommended by the manufacturer and handled according to their MSDS. The Vendor shall not store these products near flame, heat, or strong oxidants.

# 2. REHABILITATION SYSTEM COMPONENT PRODUCTS

#### 2.1. GENERAL

A. The Vendor shall provide and use the products listed in this Section's specifications. The products listed below shall be the only items considered for performing wastewater manhole rehabilitation services. The Vendor shall submit the product selections to NBU prior to performing any work.

# 2.2. CHEMICAL GROUT

# A. PRODUCTS

- 1. The Vendor shall use chemical grouts specifically designed for the purpose of sealing leaks in the wastewater manholes and shall exhibit the properties described herein:
  - a. documented service of satisfactory performance in similar usage;
  - b. controllable reaction times and shrinkage through the use of chemicals supplied by the same manufacturer (the minimum set time shall be established so that adequate grout travel is achieved);
  - c. non-toxic in its cured form; and
  - d. sealing material shall not become rigid or brittle when subjected to dry atmosphere, and the material shall be able to withstand freeze/thaw and moving load conditions.

# 2. Products shall be:

- a. DE NEEF HA Sealfoam as manufactured by DE NEEF Construction Chemicals of Houston Texas;
- b. Avanti A-202 Multigrout as manufactured by Avanti International, Webster Texas; and
- c. Spetec H100, H40, F1000, F400, GT1100 as manufactured by Resiplast US, Cypress, TX 77410; or NBU approved equal.

#### B. MIXING AND HANDLING

1. The Vendor shall perform mixing and handling of chemical grout, which may be toxic under certain conditions, in such a manner as to minimize any hazard to personnel and shall be in accordance with the manufacturer's recommendations. It shall be the responsibility of the Vendor to provide appropriate protective measure to ensure that chemicals are handled only by trained and authorized personnel. All equipment used by the Vendor to install the grout shall be as recommended by the manufacturer and only personnel thoroughly familiar with all aspects of the grouting material and meeting the qualification requirements specified herein shall perform the grouting operation.

# 2.3. CEMENTITIOUS RESTORATION

# A. GENERAL

1. The Vendor shall provide a cementitious restoration material designed for structural build back, infiltration and inflow abatement, corrosion resistance, and repairing inverts. The Vendor shall ensure all products applied to a structure are compatible, as specified by the manufacturer.

#### B. INFILTRATION CONTROL PRODUCTS

- 1. The Vendor shall furnish only fast-setting products designed specifically for leak control. The Vendor shall apply products only in dry powder form, with no prior mixing of water, directly to active leaks under hydrostatic pressure in the wastewater manholes, and in accordance with the manufacturer's recommendations.
- 2. Products shall be Strong-Seal and Strong-Plug as manufactured by The Strong Company Inc., Pine Bluff, AR; or NBU approved equal.

# C. PATCHING AND INVERT REPAIR PRODUCTS

- 1. Patching and invert repair materials shall exhibit the following properties:
  - a. all material furnished shall be designed to fill large voids in wastewater manhole walls and to repair or reconstruct inverts where no hydrostatic pressure exists;
  - b. material shall consist of rapid setting cements, monocrystalline quartz aggregates, and various accelerating agents;
  - c. products shall not contain chlorides or metallic particles and shall be mixed and applied in accordance with the manufacturer's recommendations; and
  - d. repair and patching materials shall have its bond strength tested to substrate failure in accordance with ASTM C-952 and be compatible with all material components and lining System applied to the wastewater manhole.

# 2. Products shall be:

- a. Strong-Scal QSR, MS2C, Bench Mix, or High Performance Mix as manufactured by The Strong Company Inc., Pine Bluff, AR;
- b. Refratta HAC 100 as manufactured by Global Materials Company, Cocoa, FL: and
- c. Fuquay Liner SRM, Fuquay Bench Mix, or Fuquay Patch as manufactured by Fuquay Inc., New Braunfels, TX; or NBU approved equal.

# D. CEMENTITIOUS LINING SYSTEMS

- 1. Cementitious wastewater manhole lining materials shall exhibit the following properties:
  - a. cementitious restoration products shall be specifically designed for the rehabilitation of the wastewater manholes and other related wastewater structures:
  - b. liner products shall be cement based, fiber reinforced, shrinkage compensated, and enhanced with chemical admixtures and siliceous aggregates;
  - c. liner products shall be mixed with water per manufacturer's written specifications and applied using equipment specifically designed for troweling, low-pressure spray or centrifugal spin casting application; and
  - d. all cementitious liners shall be troweled to density and the surfaces shall be smoothed out.
- 2. Cementitious Wastewater Manhole Lining materials:
  - a. Strong-Seal High Performance Mix or Strong-Seal MS-2C as manufactured by The Strong Company Inc., Pine Bluff, AR;
  - b. Refratta HAC 100 as manufactured by Global Materials Company, Cocoa, FL; and
  - c. Fuquay Liner SRM, Fuquay Bench Mix, or Fuquay Patch as manufactured by Fuquay Inc., New Braunfels, TX.

# 2.4. PROTECTIVE COATING PRODUCTS

#### A. GENERAL

1. The Vendor shall apply coating products to the wastewater manholes specified to receive a corrosion protective coating sufficiently thick to totally protect the existing host structure from further corrosion, deterioration and water vapor transmission. The Vendor shall use only coating materials compatible with the wastewater manhole rehabilitation System. The Vendor shall perform substrate and surface preparation, application conditions, application equipment, material

preparation, and curing in strict accordance with the manufacturer's written recommendations.

# B. COATING PRODUCTS

- 1. Coating products include the following:
  - a. Reactamine ET as manufactured by Carboline Company, Houston, TX; and
  - b. Spraywall as manufactured by Sprayroq, Inc., Birmingham, AL.

#### 2.5. WASTEWATER MANHOLE SEALS

#### A. CHIMNEY SEALS

- 1. The Vendor shall use chimney seals for the purpose of preventing leakage of water into the wastewater manhole through the frame joint area and the area above the wastewater manhole cone including all extensions to the chimney area. Extensions shall include adjustment rings and/or material used to achieve grade.
- 2. Chimney seals shall be Flex-Seal as manufactured by Sealing Systems Inc., Loretto MN, or NBU approved equal.

# B. RING CASTING SEALS

- 1. The Vendor shall use ring casting seals for the purpose of eliminating infiltration and forming a bond between the ring casting and grade adjustment ring or cone.
- 2. Adhesive product shall be Encapseal as manufactured by Miller Pipeline, Indianapolis, IN; or NBU approved equal.

# 2.6. REPLACEMENT RING AND COVER

- A. The Vendor shall replace ring and covers when broken, corroded, or otherwise directed by NBU. The Vendor shall furnish all material, equipment, tools and labor for the installation of a replacement ring and cover. The following specifications shall apply:
  - 1. 24-inch diameter ring and covers shall be cast grey iron with a blot-down lid; and
  - 2. 32-inch diameter ring and covers will meet the requirements in NBU's detail drawing 331 (Sanitary Sewer MH Cover 2023 Coat of Arms-1), included in this Agreement as Attachment A.

# 2.7. WASTEWATER MANHOLE ADJUSTMENTS

- A. The Vendor shall make wastewater manhole adjustments with precast grade rings. Rings shall be Class A concrete and conform to the requirements noted below.
  - 1. Precast Grade Rings, 24 1/2 inch inside diameter: this adjustment ring shall be used only for adjusting existing wastewater manholes with 24 inch diameter lids and for wastewater access device. Inside to outside diameter dimension of the ring shall be 6 inches with a thickness of 3 inches to 6 inches.
  - 2. Precast Grade Rings, 35 inch inside diameter: this adjustment ring shall be used for all new wastewater manhole construction with 32 inch diameter lids. Inside to outside diameter dimension of the ring shall be 6 inches with a thickness of 2 inches to 6 inches.

#### 3. EXECUTION

# 3.1. GENERAL

- A. The Vendor's Work Authorizations shall be sequentially numbered, submitted electronically to NBU and approved by NBU in writing prior to commencing work.
- B. The Vendor's written safety plan shall be submitted electronically to NBU and approved by NBU prior to commencing work.
- C. The Vendor is responsible for coordinating and attending a site visit to each wastewater manhole designated for rehabilitation work with the NBU representative prior to commencing work.
- D. The Vendor shall provide progress updates and schedule updates via email to the NBU representative. The progress updates may need to be as frequent as daily.
- E. The Vendor shall be responsible for notifying the NBU representative upon completion of all rehabilitation work.

# 3.2. TRAFFIC CONTROL

- A. The Vendor shall setup and maintain any necessary traffic control devices prior to commencing work.
- B. The Vendor shall carry out disruption to normal traffic flow in compliance with the TMUTCD.
- C. Traffic control devices shall be setup and maintained by a Vendor employee who holds a current "competent person" designation for traffic control in accordance with the TMUTCD.
- D. Any flagging required shall be performed by persons with current training as a flagger in accordance with the TMUTCD.

#### 3.3. BY-PASS PUMPING

- A. The Vendor shall be responsible for the setup, installation, operation and maintenance of by-pass pumping operations as required.
- B. The Vendor shall prepare and submit electronically to NBU a by-pass pumping plan for each work area prior to commencing work. The plan shall detail the sequence of wastewater manhole rehabilitation System installation, plug locations, suction wastewater manholes, discharge wastewater manholes, pump size and pump locations. The plans shall include preferred lane closures, if necessary.
- C. The Vendor shall not perform by-pass pumping if there is a 20% chance of a ½ inch or greater rain event forecasted or within 24 hours after the rain event.
- D. The Vendor shall use a by-pass pumping system sized to accommodate the maximum anticipated flow. NBU will provide the anticipated flow rate.
- E. The Vendor shall be responsible for all pump selection, setup, installation, operation and maintenance of the by-pass equipment. The by-pass pumping piping shall not obstruct storm water conveyance.
- F. The Vendor shall provide self-priming pumps with an integral vacuum pump that includes a sound attenuating enclosure for both the primary and backup pumps. In situations where a single pump is capable of handling the flow, the backup pump shall be of capacity equal to the primary pump. In situations where more than one pump is needed to provide the required capacity, the backup pump shall have the same capacity of the largest of the primary pumps. When three pumps are used for the base flow, at least 2 backup pumps are required. While bypass pumping operations are underway, the pumps and discharge piping shall be monitored by 2 attendants who work for the Vendor.
- G. The Vendor shall use discharge piping and flexible hose designed to withstand at least twice the maximum system pressure, or a minimum of 50 pounds per square inch ("PSI"), whichever is greater. The Vendor shall restrain the discharge piping as necessary to prevent joint separation.
- H. The Vendor shall secure pumps and open wastewater manholes from public access with chain link fence panels.
- I. Prior to disassembling, the Vendor shall flush rigid pipe. The Vendor shall pump clean water through the piping at least equal to five times the volume of the pipe. Flexible hoses are not required to be flushed.

# 3.4. WASTEWATER MANHOLE PREPARATION

A. The Vendor shall:

- 1. Set up by-pass pumping, as required.
- 2. Install debris catchment or containment prior to cleaning interior wastewater manhole surfaces.
- 3. Clean interior surfaces of the wastewater manhole of debris, dirt, oil, grease, remains of old coating materials, and any other extraneous materials.
- 4. Pressure wash wastewater manhole walls to remove loose mortar, concrete, and debris. Water pressure shall be a minimum of 3,000 PSI or as recommended by the manufacturer.
- 5. Repair irregularities in the wastewater manhole using materials compatible with the proposed System and as required by the manufacturer.
- 6. Repair leakage in the wastewater manhole using materials, compatible with proposed Systems specified in these specifications (2.2 Section A2, 2.3 Section B2).
- 7. Trim and grout incoming laterals and pipes as required and/or specified.
- 8. Remove debris from the wastewater manhole and incoming sewer connections to include the following:
  - a. handle cleaning water to prevent water and residue from causing damage;
  - b. do not discharge debris downstream through the sanitary sewer system;
  - c. filter solids-laden water through a de-silting device; and
  - d. properly dispose of debris and residue from cleaning and other construction operations at a municipal solid waste landfill.

# 3.5. CHEMICAL GROUT

# A. GENERAL

1. The Vendor shall perform grouting only on a structurally sound wastewater manhole unless the grout is used to prevent water from entering the wastewater manhole during application of a lining or coating System. The Vendor shall perform normal grouting operations at the temperatures recommended by the manufacturer.

# B. GROUTING APPLICATIONS

1. The Vendor shall apply grout to a wastewater manhole for the purpose of reducing or eliminating infiltration/inflow prior to application of a lining, coating or other structural rehabilitation component.

# C. DRILLING AND GROUT INJECTION

- 1. The Vendor shall drill grout injection holes in the wastewater manhole in strategic locations to re-direct flow coming through cracks and other defects in the wall, or to seal the entire exterior surface of the wastewater manhole, in accordance with the recommendations of the grout manufacturer.
- 2. The Vendor shall inject grout through the drilled holes using the recommended probe and applying pressures that will effectively inject the grout, but not cause damage to the wastewater manhole structure or the surrounding area.
- 3. The Vendor shall clean and patch injection holes as recommended by the manufacturer.

# D. INSPECTION AND ACCEPTANCE

1. The Vendor shall perform a visual inspection of the work to confirm all significant leakage into the manhole has been eliminated.

# 3.6. CEMENTITIOUS RESTORATION

# A. GENERAL

- 1. The Vendor shall:
  - a. Before starting any patch work or liner application, install a perforated device, catch bucket, or other straining device to prevent construction debris from entering down-stream pipes.
  - b. Provide all materials, labor, equipment, etc. required to perform the work as recommended by the manufacturer and as required by the Agreement.
  - c. Inspect each wastewater manhole to determine methods of stopping leaks and applying patch repairs.
  - d. Promptly inform NBU of errors or discrepancies between the work assignment, documents, or field conditions found, in order that change conditions can be evaluated and revised directives issued in a timely manner.
  - e. Install all products in accordance with manufacturer's instructions regarding surface preparation, product application and curing.
  - f. Confirm that all materials to be used for the rehabilitation of the wastewater manhole are compatible with each other. Do not use any materials that have not been verified for compatibility.

# B. SEALING ACTIVE LEAKS

- 1. The work on some wastewater manholes shall include, applying by hand, a dry quick-setting cementitious mix designed to instantly stop running water or seepage. The Vendor's applicator shall apply material in accordance with manufacturer's recommendations and the following minimum specifications:
  - a. the area to be repaired shall be clean and free of all debris:
  - b. once cleaned, prepare a crack or hole by chipping out loose material to a minimum depth of 2 inches;
  - c. apply the dry quick-setting cementitious material to the active leak, per the manufacturer's recommendations; and
  - d. proper application shall not require any special mixing of the product or special curing requirements after application.

# C. PATCHING, INVERT AND BENCH REPAIR

- 1. This work consists of hand mixing and applying a rapid setting, high early strength, non-shrink patching material to fill all large voids and repair the wastewater manhole channels prior to installing the wastewater manhole lining. For invert repairs, the Vendor shall temporarily restrict flow by inflatable flow-thru plugs prior to cleaning. The Vendor shall secure plugs by a heavy cable or chain to prevent loss. If Vendor uses non-flow thru plugs, then the Vendor shall use by-pass pumping. Plugging influent lines and allowing flow to backup will not be allowed. The Vendor shall adhere to the following instructions in performing this work:
  - a. the area to be repaired shall be cleaned and free of all debris;
  - b. water used to mix the cementitious patching materials shall be clean potable water and require no additives or admixtures;
  - c. cementitious material shall be mixed with water per manufacturer's specifications;
  - d. material shall be mixed in small quantities, to avoid setting prior to placement;
  - e. once mixed to proper consistency, the materials shall be applied to the invert or void areas by hand or trowel;
  - f. in invert applications, care shall be taken to not apply excessive materials in the channel, which would restrict flow;
  - g. once applied, materials shall be smoothed either by hand or trowel in order to facilitate flow; and
  - h. flows in channels shall be re-established when material has cured enough to withstand the flow as determined by the manufacturer.

# D. APPLICATION OF CEMENTITIOUS WASTEWATER MANHOLE LINER

- 1. This work consists of troweling, spray application, and/or centrifugally spincasting a cementitious based liner to the inside of the existing wastewater manhole. The Vendor shall use the necessary equipment and application methods to apply the cementitious based liner materials only as recommended and approved by the material manufacturer.
- 2. The Vendor shall mix the cementitious material with water in accordance with the manufacturer's specifications. The Vendor shall use the equipment recommended by the manufacturer for this work, and matched for the material being applied. The Vendor shall use pumping equipment capable of applying the lining material to the wastewater manholes up to 25 feet in depth.
- 3. The Vendor shall perform cementitious material application by starting at the wastewater manhole invert and progressing upward.
- 4. Material thickness may be verified at any point with a depth gauge and shall be no less than a uniform one-half (1/2) inch. The Vendor shall trowel material smooth to compact material into voids and finish with a light brush or broom finish.
- 5. The Vendor shall follow the manufacturer's specific requirements for curing and the use of curing compounds related to the cementitious lining materials applied by Vendor. Lining material failures due to improper curing shall be repaired by the Vendor at no additional expense to NBU.
- 6. The Vendor shall not apply material during freezing weather conditions, when the ambient temperature is 37 degrees Fahrenheit and falling, or when the temperature is anticipated to fall below 32 degrees Fahrenheit during the next 24 hours.

# E. FRAME TO CHIMNEY SEAL

1. If a chimney seal is required in conjunction with the lining technology, the Vendor shall follow the manufacturer's requirements for proper preparation in effectively installing the chimney seal after the lining has been applied and cured.

# F. TESTING AND ACCEPTANCE

- 1. The Vendor shall perform a visual inspection to verify there are no significant infiltration, cracks, or loose material after the lining material has cured and prior to applying protective coatings.
- 2. Cementitious Material Physical Property Testing (ASTM C78-09, C109/C109M-20, C157/C157M-17, C293/C293M-16).

# 3.7. APPLICATION OF PROTECTIVE COATING PRODUCT

# A. GENERAL

- 1. The Vendor shall comply with local, state and federal regulatory and other applicable agencies with regard to environment, health and safety during work.
- 2. The Vendor shall properly cure cementitious lining materials according to manufacturer's requirements prior to the coating application. The Vendor shall use coating material compatible with the cementitious lining material.
- 3. The Vendor shall maintain the temperature of the surface to be coated between 40 degrees and 120 degrees Fahrenheit or as recommended by the manufacturer.
- 4. The Vendor shall shield surfaces that are to be coated to avoid exposure of direct sunlight or other intense heat source. Where varying surface temperatures do exist, the Vendor shall schedule coating application when the temperature is falling and not rising or as recommended by the manufacturer.
- 5. Prior to commencing surface preparation, the Vendor shall inspect all surfaces specified to receive the coating and shall notify NBU, in writing, of any noticeable disparity in the site, structure or surfaces which may interfere with the work, use of materials or procedures as specified herein.

# B. SURFACE PREPARATION

- 1. The Vendor shall entirely remove oils, grease, incompatible existing coatings, waxes, form release, curing compounds, efflorescence, sealers, salts, or other contaminants which may affect the performance and adhesion of the coating to the substrate.
- 2. The Vendor shall base the choice of substrate preparation method(s) upon the condition of the structure and concrete or masonry surface, potential contaminants present, access to perform work, and required cleanliness and profile of the prepared surface to receive the specified coating products, as recommended by the manufacturer.
- 3. Surface preparation methods or a combination of methods that may be used include high pressure water cleaning, high pressure water jetting, abrasive blasting, shot blasting, grinding, scarifying, detergent water cleaning, hot water blasting, and others as described in NACE No. 6/SSPC SP-13 Surface Preparation of Concrete and ICRI Technical Guide No. 310.2R-2013. Whichever method(s) are used, the Vendor shall perform them in a manner that provides a uniform, sound clean neutralized surface with sufficient profile to promote an acceptable bond with the specified coating.
- 4. The Vendor shall stop infiltration by using a material that is compatible with the repair products and is suitable for top-coating with the coating product. The

- Vendor shall verify the product compatibility, in writing, to NBU prior to performing the work.
- 5. The chimney and ring casting joint shall be the termination point of the coating product.

#### C APPLICATION OF PROTECTIVE COATING PRODUCT

- 1. The application procedures shall conform to the recommendations of the epoxy coating product manufacturer, including environmental controls, product handling, mixing, application equipment and methods.
- 2. Spray equipment shall be specifically designed to accurately ratio and apply the coating product. The equipment used shall be in proper working order and shall be as recommended by the product manufacturer.
- 3. The Vendor's applicators shall be qualified in accordance with the manufacturer's specifications and shall perform all aspects of the coating application.
- 4. The Vendor shall coat prepared surfaces by spray application of the coating product described herein to a minimum of 125 mils or as recommended by the manufacturer.
- 5. The Vendor shall perform subsequent top coating or additional coats within the product's recoat time as specified by the product manufacturer. The Vendor shall be required to perform additional surface preparation procedures if this recoat time is exceeded. The product manufacturer's re-coat time for the specific application, based on temperature and project conditions, shall be strictly followed by the Vendor.
- 6. The coating product shall mechanically bond with adjoining construction materials throughout the wastewater manhole structure to effectively seal and protect concrete or masonry substrates from infiltration and attack by corrosive elements. The Vendor shall apply procedures and materials necessary to effect this bond as recommended by the coating product manufacturer. No hollow spots shall be accepted.

# D. TESTING AND ACCEPTANCE

- 1. Visual Inspection The Vendor shall ensure that the coating System shall be free of pinholes and hollow spots/voids and other defects that will reduce the life expectancy of the applied System.
- 2. Film Thickness Measurements (either wet or dry) Coating thickness shall be a minimum of 125 mils or greater dependent on the degree of rehabilitation

- consensually agreed upon by the Vendor and the NBU representative prior to the commencement of work
- 3. Holiday Detection Test (following ASTM G210-13R18) shall be performed by the Vendor to identify pinholes, thin material and any defects that will affect the life and performance of the installed System.

# 3.8. APPLICATION OF WASTEWATER MANHOLE SEALS

# A. CHIMNEY SEALS

- 1. The Vendor shall be responsible for contacting the manufacturer for specific cure times of substrate materials prior to applying the chimney seal product.
- 2. Prior to surface preparation, the Vendor shall stop infiltration by using a material that is compatible with the repair products and is suitable for top-coating with the coating product. The Vendor shall verify the product compatibility, in writing, to the NBU representative prior to performing the work.
- 3. The Vendor shall perform surface preparation using Flex-Seal manufacturer's approved method to remove oils, grease, existing coatings, wax, loose debris, curing compounds, rust, efflorescence, sealers, salt or other contaminants that may affect the performance and adhesion of the chimney seal to the substrate.
- 4. The Vendor shall follow application procedures that conform to the recommendations of the product manufacturer, including environmental conditions, surface preparation, product mixing, handling, application and cure time.

# B. RING CASTING SEALS

- 1. The Vendor shall furnish all material, equipment, tools and labor for the application of a ring casting seal to form a bond between the ring casting and grade adjustment ring or cone.
- 2. The Vendor shall perform preparation and installation in accordance with the manufacturer's recommendations.

# 3.9. WASTEWATER MANHOLE RING AND COVER REPLACE/GRADE ADJUSTMENT

# A. EXTERIOR WASTEWATER MANHOLE CONSTRUCTION – CITY OF NEW BRAUNFELS ("CoNB") STREET

1. The Vendor shall repair the road surface surrounding manhole ring and covers that have been identified for replacement or adjustment in a CoNB street using the following instructions:

- a. all wastewater manholes shall have a seven (7) foot squared section of pavement, centered around the wastewater manhole and square to traffic, removed to facilitate replacement or adjustment;
- b. guidelines found in "NBU Detail 322 New Manhole Construction and Minor Manhole Adjustment Within Pavement" will be used to install a round concrete encasement and has been included in this Agreement as Attachment B:
- c. base material used to backfill the excavation shall be compacted to 100% density, compaction shall be performed by mechanical tamping; and
- d. the pavement surface shall be replaced by a 7 feet squared HMAC patch matching existing asphalt thickness or 2 inches, whichever is greater.
- 2. The Vendor shall replace or adjust all wastewater manhole rings and covers that have been identified for replacement or adjustment in a TxDOT street following all of TxDOT's requirements, including but not limited to Attachment C.

# B. EXTERIOR WASTEWATER MANHOLE CONSTRUCTION – UNPAVED SURFACES

- 1. Wastewater manhole ring and covers that have been identified for replacement or adjustment in an unpaved area shall follow "NBU Detail 322 New Manhole Construction and Minor Manhole Adjustment Outside Pavement" to secure the exterior of the ring and cover (Attachment B).
- 2. The Vendor shall ensure the encasement and frame elevation is 6" above surrounding terrain where safe to do so, otherwise the elevation shall be flush with the surrounding terrain. The NBU representative shall make this determination prior to work commencing. The Vendor shall sufficiently compact backfill material to be flush with the surrounding terrain and minimize settling.
- 3. The Vendor shall remove all excess spoils and materials from the jobsite.
- 4. The Vendor shall repair all disturbed vegetation in accordance to the NBU representative's verbal directives.

# C. REPLACE RING AND COVER

- 1. The Vendor shall replace rings and covers when broken, corroded, or otherwise directed by NBU.
- 2. The Vendor shall furnish all material, equipment, tools and labor for the installation of a replacement ring and cover.
- 3. The Vendor shall recycle all removed cast iron rings and covers.

# D. WASTEWATER MANHOLE ADJUSTMENT

- 1. If the adjustment involves lowering the top of the wastewater manhole, the Vendor shall remove a sufficient depth of pre-cast concrete rings or brick courses to permit reconstruction, clean any existing mortar from the top surface remaining in place, and rebuild the manhole to the required elevation. The Vendor shall then install a new wastewater manhole ring and cover with the top surface conforming to the proposed grade.
- 2. If the adjustment involves raising the elevation of the top of the wastewater manhole, the Vendor shall clean and build up the top of brick or concrete ring vertically to the new elevation, using new concrete rings, and install the ring and cover with the top surface conforming to the proposed grade.
- 3. After the ring and cover is set to grade, the Vendor shall wipe the inside of the precast concrete grade rings with non-shrink grout to form a durable surface and water-tight joints. The Vendor shall smooth the grouted surface even with the wastewater manhole cone section. The Vendor shall not place grout when the atmospheric temperature is at or below 40 degrees Fahrenheit. If a sudden drop in temperature below 40 degrees Fahrenheit occurs, or temperatures below 40 degrees Fahrenheit are predicted, the Vendor shall protect grouted surfaces against freezing for at least 24 hours.

# 3.10. QUALITY ASSURANCE AND TESTING

#### A. GENERAL

- 1. An independent material testing laboratory selected by NBU shall test materials used on the project. The Vendor shall obtain index and density testing on imported soils used on the project and supply NBU with the imported soil testing prior to NBU accepting the completed project.
- 2. The Vendor shall notify NBU at least five (5) days in advance of testing. All testing shall be performed in the presence of NBU's representative.

# B. TEST REQUIREMENTS

# 1. Visual Inspection

- a. All wastewater manholes shall be visually inspected by the Vendor and NBU's representative. Any leakage into the wastewater manhole where Systems were installed by the Vendor shall be repaired at no cost to NBU.
- 2. Cementitious Material Property Testing
  - a. The Vendor shall provide samples for testing to NBU from the actual installed System.

b. Where specified 2 x 2 inch sample cubes shall be taken for every 50 bags of material used. Samples shall be applied in an identical manner as the System application in the wastewater manhole. Samples shall be collected by the independent test laboratory for compression strength testing as described in ASTM C109/C109M-20.

#### 3. Film Thickness Measurements

- a. The Vendor shall be responsible for providing all equipment and labor to perform wet film thickness measurements in accordance with ASTM D4414-95R20 Standard Practice for Measurement of Wet Film Thickness of Organic Coatings by Notched Gages. Measurements shall be taken during application of the coating, documented and attested to by the Vendor for submission to NBU.
- b. Dry film thickness measurements shall be taken on 10% of the wastewater manholes receiving a coating. The Vendor shall be responsible for providing all equipment and labor to perform dry film thickness in accordance with ASTM D6132-13R17- Standard Test Method for Nondestructive Measurement of Dry Film Thickness of Applied Organic Coatings Using an Ultrasonic Coating Thickness Gage. NBU's representative shall select manholes to be tested.

# 4. Holiday Detection Test

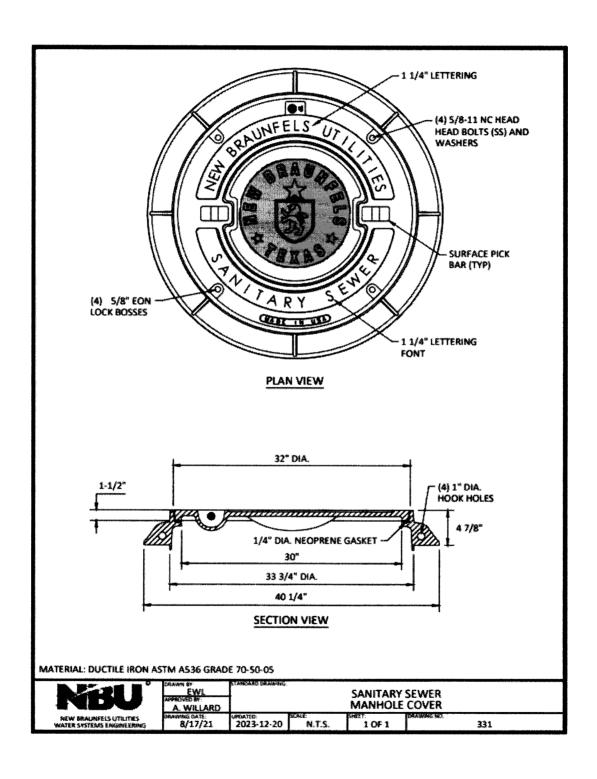
- a. The Vendor shall provide all equipment and labor to test for discontinuities ("holidays") in each new layer of applied coating to detect pinholes, voids, cracks, thin spots and foreign inclusions by using methods and equipment in accordance with ASTM D4787-13R18 Continuity Verification of Liquid or Sheet Linings Applied to Concrete Substrates.
- b. The Vendor shall perform all discontinuity testing using high-voltage, pulse-type equipment, and another of the Vendor's designated representative shall witness the performance. The test voltage shall depend on the coating thickness according to the tabulated values in ASTM D4787-13R18.
- c. The Vendor shall mark and repair all detected holidays in accordance with the coating manufacturers recommended repair procedure.
- d. The Vendor shall be responsible for documenting and submitting wastewater manhole testing, test results, and repairs made to NBU.

# 5. Adhesion Testing

a. The Vendor shall test a minimum of 10% of the wastewater manholes coated for adhesion/bond of the coating to the substrate. The Vendor shall

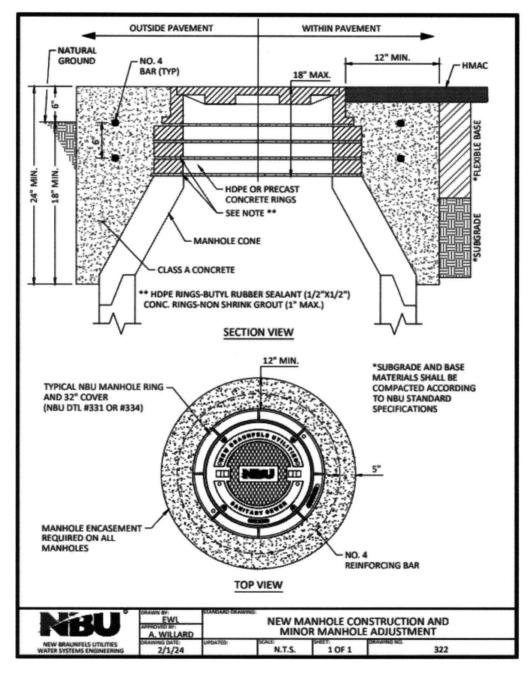
- provide all equipment and labor to conduct testing in accordance with ASTM D4541-09, ASTM D7234-21, or NACE SP0188-2024. NBU's representative shall select wastewater manholes to be tested.
- b. The Vendor shall affix a minimum of three (3) 50 mm dollies to the coated surface at the cone area, mid-section, and at the bottom of the structure. The adhesive used to attach the dollies to the coating shall be rapid setting with tensile strengths in excess of the coating product and permitted by the Vendor to cure in accordance with manufacturer recommendations. The Vendor shall adequately prepare the coating and dollies to receive the adhesive.
- c. Failure of the dolly adhesive shall be deemed a non-test and shall require retesting. Prior to performing the pull test, the coating shall be scored to the substrate by mechanical means without disturbing the dolly or bond within the test area.
- d. Two of the three adhesion pulls shall exceed 300 PSI or concrete failure with more than 50% of the subsurface adhered to the coating.
- e. Should a structure fail to achieve two successful pulls as described above, additional testing shall be performed by the Vendor at the discretion of NBU. Any areas detected to have inadequate bond strength shall be evaluated by NBU.
- f. Further bond tests may be performed in that area to determine the extent of the potentially deficient bonded area. Repairs shall be made at the expense of the Vendor.

# Attachment A 331 SANITARY SEWER MH COVER 2023 Coat-of-Arms-1



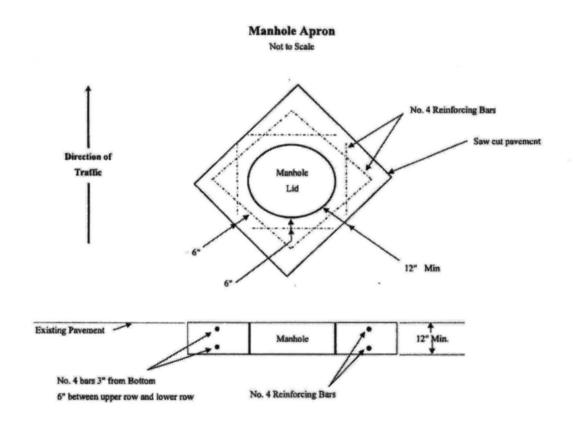
Attachment B

322 New Manhole Construction and Minor Manhole Adjustment



# Attachment C

# **TXDOT Manhole Diamond**



Use Class "A" concrete (3000 PSI)

# **Exhibit B**

# Price List/ Payment Terms

NBU shall pay the Vendor for the Services rendered under this Agreement in accordance with the tables set forth below in an amount not to exceed \$1,000,000 annually and \$5,000,000 for the duration of the Agreement.

Item	Description	Unit of Measure	Unit Price	Product/Process Details	Additional Details
1	Chemical Grout- Provide, and inject Chemical Grout through the wastewater manhole wall to stop active leaks to allow lining or coating	Gallon	\$89.00	Avanti-A202 Avanti International	
2	Bench and Invert Reconstruction- reconstruction of bench or invert of a 4-foot inside diameter of the wastewater manhole, including flow control	Each	\$350.00	Refratta HAC-100 Global Materials	
3	Cementitious Lining- 4-foot inside diameter of the wastewater manhole, 1/2 inch thickness	Vertical Foot	\$69.00	Refratta HAC-100 Global Materials	
4	Cementitious Lining- 4-foot inside diameter of the wastewater manhole, 1 inch thickness	Vertical Foot	\$85.00	Refratta HAC-100 Global Materials	
5	Cementitious Lining- 4-foot inside diameter of the wastewater manhole, 2 inch thickness	Vertical Foot	\$145.00	Refratta HAC-100 Global Materials	
6	Protective Coating- 4-foot inside diameter of the wastewater manhole, 125 mils	Vertical Foot	\$59.00	SCP Dropliner/specialty Coating Products-Equal to Reactamine ET/Carboline Inc.	
7	Protective Coating- 4-foot inside diameter of the wastewater manhole, 250 mils	Vertical Foot	\$120.00	SCP Dropliner/specialty Coating Products-Equal to Reactamine ET/Carboline Inc.	
8	Chimney Seal Installation- Equipment, labor, and materials to install a chimney seal	Each	\$350.00	Flex Seal by Sealing System Inc.	

9	Ring Casting Seal Installation- Equipment, labor, and materials to install a ring casting seal	Each	\$350.00	Encapseal by Miller Pipeline
10	Replacement ring and cover- 24 inch diameter bolt-down cast iron	Each	\$850.00	24" by East Jordan
11	Replacement ring and cover- 32 inch diameter bolt-down cast iron	Each	\$850.00	32" by East Jordan
12	Equipment, labor, and materials including the concrete diamond (ring and cover price is a separate line item) to replace ring and cover or adjust grade <6 inches in TXDOT Right of Way ("ROW") pavement	Each	\$1500.00	
13	Equipment, labor, and materials including the concrete encasement (ring and cover price is a separate line item) to replace ring and cover or adjust grade <6 inches in NON-TXDOT paved and all unpaved areas	Each	\$1250.00	
14	Additional Cost for equipment, labor, and materials to adjust the wastewater manhole grade 6 to 24 inches.	Each	\$750.00	
15	By-pass Set-up			
15.2	By-pass operation using 4 inch pumps and 500 feet of by-pass discharge line.	Each	\$750.00	4x4x8 solids vac QF pump 041-0137
15.3	By-pass operation using 6 inch pumps and 500 feet of by-pass discharge line.	Each	\$950.00	6x8x11 vac pump 041-0150
16	Additional Discharge Piping			
16.1	Additional 500 feet of 4 inch discharge piping	Each	\$150.00	4x50 lay flat
16.2	Additional 500 feet of 6 inch discharge piping	Each	No pricing provided	6x50 lay flat
17	<b>NOTE:</b> By-pass operations for mains over 15 inches will be negotiated separately.			

18	Removal of existing	Per Vertical	\$45.00	N/A
	protective coating	Foot	\$45.00	N/A
19	TXDOT single lane closure			
19.1	35 mph	Per Each	\$900.00	Flasher Equipment
19.2	45 mph	Per Each	\$900.00	Flasher Equipment
19.3	55 mph	Per Each	\$900.00	Flasher Equipment
19.4	65 mph	Per Each	\$1000.00	Flasher Equipment
19.5	75 mph	Per Each	\$1200.00	Flasher Equipment
20	TXDOT double lane closure			Flasher Equipment
20.1	35 mph	Per Each	\$1100.00	Flasher Equipment
20.2	45 mph	Per Each	\$1100.00	Flasher Equipment
20.3	55 mph	Per Each	\$1100.00	Flasher Equipment
20.4	65 mph	Per Each	\$1200.00	Flasher Equipment
20.5	75 mph	Per Each	\$1400.00	Flasher Equipment
21	TXDOT intersection closure			Flasher Equipment
21.1	35 mph	Per Each	\$3300.00	Flasher Equipment
21.2	45 mph	Per Each	\$3300.00	Flasher Equipment
21.3	55 mph	Per Each	\$3300.00	Flasher Equipment
21.4	65 mph	Per Each	\$3300.00	Flasher Equipment
21.5	75 mph	Per Each	\$3300.00	Flasher Equipment
22	NON-TXDOT single lane			Flasher Equipment
	closure			
22.1	25 mph	Per Each	\$450.00	Flasher Equipment
22.2	35 mph	Per Each	\$450.00	Flasher Equipment
22.3	45 mph	Per Each	\$450.00	Flasher Equipment
22.4	55 mph	Per Each	\$550.00	Flasher Equipment
22.5	65 mph	Per Each	\$650.00	Flasher Equipment
23	NON-TXDOT double lane			Flasher Equipment
	closure			
23.1	25 mph	Per Each	\$550.00	Flasher Equipment
23.2	35 mph	Per Each	\$550.00	Flasher Equipment
23.3	45 mph	Per Each	\$550.00	Flasher Equipment
23.4	55 mph	Per Each	\$600.00	Flasher Equipment
23.5	65 mph	Per Each	\$650.00	Flasher Equipment
24	NON-TXDOT intersection			Flasher Equipment
	closure			
24.1	25 mph	Per Each	\$1500.00	Flasher Equipment
24.2	35 mph	Per Each	\$1500.00	Flasher Equipment
24.3	45 mph	Per Each	\$1500.00	Flasher Equipment
24.4	55 mph	Per Each	\$1700.00	Flasher Equipment
24.5	65 mph	Per Each	\$1750.00	Flasher Equipment

# Exhibit C Work Authorization Form

# **Work Authorization**



Work Authorization No. \_\_\_\_\_

New Braunfels Utilities ("NBU")	Project No.: Agreement No.: 24-0077					
Attn: Director of Water Services						
263 Main Plaza New Braunfels, Texas 78130	Date:	: 24-0077				
This Work Authorization No is in accordance with the terms and conditions outlined in the Services and Goods Agreement between ("Vendor") and NBU dated (the "Agreement").						
Project Description:						
Description of Services:						
The Vendor shall provide the Services in accordance with <b>Exhibit A</b> in Appendix to this Work Authorization.	of the Agreement and	d more particularly described				
Deliverables:						
Compensation shall be as follows: Unless otherwise expressly stated herein, compensation for the Services and Deliverables shall be in the amount described in this Work Authorization in accordance with the Fee Schedule described in Exhibit B of the Agreement.						
Amount of this Au	thorization	\$				
Schedule shall be as follows:						
The above described services shall proceed upon return of this Work Auth the Work Authorization conflicts with the Agreement, the Agreement contro		l be billed as they are done. If				
☐ This Work Authorization will serve as notice to proceed.						
VENDOR: NEV	NDOR: NEW BRAUNFELS UTILITIES:					
BY: BY:	BY:					
Print or Type Name	Print or Type Name					
TITLE: TIT	TITLE:					
DATE: DAT	rF.					