TO: Mayor Peterson and Town Trustees

FROM: Nathaniel Shull; Town Planner

DATE: July 22, 2019

RE: BOARD ACTION ITEM – Consideration to approve Development Improvements Agreement (DIA) for Grand Lake Lodge; Consideration to Accept the Final Planned Development Plan Amendment and Accompanying Site Plan for Grand Lake Lodge (requiring signatures)

Mayor and Trustees,

RTA Grand Lake Lodge, LLC ("RTA") has prepared a Development Improvements Agreement for execution as part of their previous Land Development application for amending the Planned Development Plan to the Grand Lake Lodge. This action satisfies the requirement of Grand Lake Municipal Code section 12-9-10(C)(4)(b). RTA has also prepared a final mylar version of the Planned Development Plan and accompanying Site Plan requiring the Mayor and Chairman’s signatures. This action satisfies the requirement of Grand Lake Municipal Code section 12-9-2(E)(5)(b)1 and standard 10 on page one (1) of the approved Planned Development Plan.

Staff is seeking Board action on these two items. A copy of the Development Improvements Agreement and accompanying exhibits is attached to the packet. Staff or Town attorney Krob is happy to answer any questions you may have.

Regards,

Nathaniel J. Shull
Town Planner
DEVELOPMENT IMPROVEMENTS AGREEMENT

FOR THE

GRAND LAKE LODGE PLANNED DEVELOPMENT

THIS AGREEMENT is entered into between the Town of Grand Lake, Colorado, a Colorado municipal corporation (the “Town”) and Red Tail Acquisitions Grand Lake Lodge, LLC, a Delaware limited liability company (the “Developer”) effective this ____ day of July, 2019.

WHEREAS, the Developer both owns and manages real property described in Exhibit A, which is attached hereto and incorporated herein by reference (the “Property”);

WHEREAS, The Owner was granted approval of a Final Development Plan Amendment to the Property via Ordinance 02-2019 which approval granted, among other things, the authority of Developer to construct up to 86 additional cabins on the Property, together with associated infrastructure, roads, trails and landscaping (the “Project”), which Project may be constructed in phases (each such phase being defined as a “Phase” of the Project by which the Developer is permitted to complete only the Improvements necessary for such discrete portion of the Project, as otherwise provided herein);

WHEREAS, the Developer intends to develop the Property, the effect of which will be to directly impact and generate the need for on-site and off-site improvements. The Developer acknowledges that the exactions set forth herein are reasonably attributable to the special impacts
which will be generated by the proposed uses of the Property, and that the terms and conditions set forth in this Agreement are necessary, reasonable and appropriate;

WHEREAS, Municipal Code Section 12-9-11(C)4(b) requires a Development Improvement Agreement to be executed by a Developer concurrent with approval of a Plan Development Plan, which Development Improvement Agreement shall be recorded if deemed necessary by the Board of Trustees;

WHEREAS, a Plan Development Plan has been approved by the Town for the Project; and,

WHEREAS, the Board of Trustees deems a Development Improvement Agreement to be necessary in connection with the Grand Lake Lodge Planned Development Amendment;

NOW THEREFORE, in consideration of the premises, the Parties hereto agree as follows:

1. **Improvements Required**

Developer agrees to make, construct and install, by Phase, the improvements in general conformance with the Site Plan attached hereto and incorporated herein as Exhibit B, or so much thereof as may be required for a given Phase of the Project (the “Improvements”). Such Improvements may be constructed by the Developer in phases during the term hereof, so long as each Phase complies with the terms hereof as applicable to such Phase or as may otherwise be required on adjoining portions of the Development to allow lawful operation of such Phase. Final construction drawings of the Improvements for each Phase (each a “Phase Design Plan”), shall be submitted by the Developer to the Town Engineer for review and approval on a phase-by-phase basis, together with a schedule of estimated costs for such Improvements for the Phase in order to establish the required Performance Guaranty pursuant to Section 3, below. Such Improvements shall be made, constructed and installed in accordance with the approved Phase Design Plan therefor, as well as applicable Town, State, Federal and other applicable standards and requirements. Any and all costs of Town inspection of Improvements shall be borne solely by the Developer. The extent of the Developer’s compliance with this Agreement shall be determined solely by the Town and its duly authorized agents and employees in their reasonable and good faith discretion.

a. **Permits**

Unless waived by the Town Manager in the Town Manager’s good faith and reasonable discretion due to circumstances beyond Developer’s reasonable control, prior to commencement of work on a given Phase of the Project, the Developer shall obtain all permits required for the planned work, including but not limited to, engineered grading permits, private and special district permits, and special use permits. In addition, Developer shall fully comply with all terms and conditions of any such permits.
b. **Water Service**

The Developer shall construct all 8" waterlines as set forth in the approved Phase Design Plan, if any, to provide water service to such Phase of Property. Prior to such construction, the proposed waterline design, including complete construction specifications, shall be reviewed and approved by the Town Water Superintendent and the Town’s designated Engineer as provided herein. All construction drawings shall comply with the Town’s Water System Design Standards as stated in Section 02713 Water Systems attached hereto and incorporated herein as **Exhibit C**.

c. **Sewer Service**

Developer shall comply with all requirements of Three Lakes Water and Sanitation District in connection with providing sewer service to the Property.

d. **Storm Drainage**

The Developer shall construct all surface and underground drainage facilities as set forth in the approved Phase Design Plan for the respective Phase, to provide proper site drainage on the Property. Prior to such construction, the proposed storm drainage facilities design for the applicable Phase, including complete construction specifications, shall be reviewed and approved by the Town Public Works Director and the Town’s designated Engineer as provided herein. All construction drawings shall comply with the Town’s regulations and standards for drainage as stated under Municipal Code Section 12-9-11(H)6 as well as Colorado State regulations for storm drainage facilities.

e. **Roadways**

The Developer shall construct all roadways and streets as set forth in the approved Phase Design Plan for the respective Phase. *All internal roads and streets on the Property are considered private and therefore are not required to be dedicated to, nor inspected by, the Town for approval. Developer hereby acknowledges that Developer and its successors, but not the Town, shall be solely responsible for all maintenance, repair, and replacement of all internal roadways within the Property and further acknowledge that although such roadways will be open to the public, in whole or in part, the Developer and its successor shall be solely liable and responsible for any claims made or actions commenced in connection with such roadways.*

f. **US HWY 34 and Old Tonahutu Road Intersection**

Unless waived by the Town Manager in the Town Manager’s good faith and reasonable discretion due to circumstances beyond Developer’s reasonable control, the Developer shall furnish to the Town a National Park Service issued Cost-Recovery Special Use Permit for construction of intersection improvements located at US HWY 34 and Old Tonahutu Road, as well as a letter by National Park Service stating acceptance of
completion of work on such intersection improvements. Such acceptance shall be a condition of issuance of any certificate of occupancy for any habitable structure to be constructed hereunder on the Property.

g. Trails

On a phase-by-phase basis, the Developer shall construct or re-construct all pedestrian and stock trails as identified by the National Park Service and the Town to be located within the 30’ setback on the Property as illustrated on the approved Phase Design Plans for each respective Phase (the “Trails”). Prior to such construction, the proposed trail design, submitted as detailed drawings on an attachment to the landscape plan for the Phase, shall be reviewed and approved by the Town Public Works Director as provided herein. Developer shall dedicate a permanent non-exclusive public access easement to the Trails as each Phase is completed. Such Trails shall be open to Property guest use and reasonable public use that does not interfere with the use and quiet enjoyment of Property guests. The parties acknowledge operation of the Property by the Developer is currently and may continue to be seasonal and that public use of the Trails within and upon the Property, shall be at such persons’ own risk, and that nothing herein shall be deemed an assumption of liability by Developer or the Town for maintenance or any condition of the Trails, or any injuries suffered by any persons, animals or property related to the Trails. The Developer or the Town may post signage at entrances to the Trails regarding users’ assumption of risk. After completion of the Trails by Developer as contemplated herein, all maintenance of the Trails shall be the responsibility of the Town and/or the National Park Service, as the Town and the National Park Service may agree. Developer retains the right to cross above, on or under the surface of the Trails from time to time, for maintenance or installation of utilities or other improvements so long as the same do not permanently and unreasonable interfere with the intended use of the easement granted above. Any resulting damages to the surface of the easement shall be repaired in a good and workmanlike manner by Developer or Developer’s designees to the same or better condition existing prior to such work.

Notwithstanding the foregoing, Developer’s obligations under this Section 1.g. are conditional upon the National Park Service agreeing to permit such trails to connect through the Property to Rocky Mountain National Park. To the extent such approval is not given, the provisions of Section 1.g. shall be deemed inapplicable and Developer shall be relieved of its obligations hereunder.

2. Assignment

Developer shall not sell, assign, transfer, or otherwise convey any of the Property or any interest therein until such time as all the Improvements for a given Phase that is under construction have been completed and accepted by the Town in accordance with this Development Improvement Agreement. The provisions of this paragraph shall not preclude: (1) Conveyance of an interest for the purpose of obtaining funding for the Project, (2) Assignment to an entity in which the current owner of the Property has a majority ownership, or controlling interest, (3) Assignment
prior to completion of the Improvements for such Phase with the Town Board's approval, which approval shall not be unreasonably withheld, or (4) Sale of individual lots to purchasers, provided the Performance Guarantee described herein has been provided to the Town. Upon formal request by Developer for consent to such assignment as contemplated herein, the Town shall have thirty (30) days to approve or reject such request; if the Town fails to provide such approval or rejection within such thirty-day period, then the Town shall be deemed to approve the assignment as requested.

3. Performance Guarantee

Prior to the commencement of any work on a given Phase of the Project, the Developer shall furnish the Town in a form and substance acceptable to the Town, an Irrevocable Letter of Credit, or other security deemed acceptable by the Town, in an amount not less than one hundred fifteen percent (115%) of the total estimated cost of the Improvements for such Phase of the Project, as certified to the Town by the Developer’s engineer, and as accepted by the Town, all as provided in Section 1, above. The amount of the Performance Guarantee may be reduced from time to time upon completion and acceptance of portions of the Improvements and upon the approval of the requested reduction by the Town Manager, which approval shall not be unreasonably withheld, conditioned or delayed. The amount of such reductions shall be the cost of the completed and accepted Improvements minus a retainage in the amount of 15% of such cost.

The letter of credit shall be subject to the following terms and conditions:

a. The Developer providing the Performance Guarantee shall have no direct or indirect ownership or managerial control over the entity issuing any Performance Guarantee.

b. In the event that prior to Town acceptance of the Improvements the Performance Guarantee should expire or the entity issuing the Performance Guarantee becomes non-qualifying, or the cost of Improvements construction is reasonably determined by the Town to be greater than the amount of security provided, then the Town shall furnish the Developer with written notice of such condition, and within fifteen (15) days of receipt of such notice the Developer shall provide the Town with a substituted qualifying Performance Guarantee, or augment the deficient security to achieve one hundred fifteen percent (115%) of the cost of Improvements completion. If such Performance Guarantee is not timely furnished, then development activities including but not limited to the issuance of building permits and certificates of occupancy, may be suspended by the Town pending compliance herewith.

The Developer shall ensure that all contractors and/or subcontractors employed in connection with construction or installation of the Improvements shall be licensed, to the extent such licensing is required, before any work on the Improvements is commenced.
4. Completion of Improvements

Developer shall have forty-eight (48) months from the date hereof to complete all Improvements for all Phases of the Project; provided, however, Developer shall not be required to initiate construction of any given Phase, and failure to commence construction of a given Phase shall not constitute a breach of this Agreement. The time for completion of the Improvements for a given Phase or for the Project may be extended by mutual agreement of the parties (which agreement shall not be unreasonably withheld, conditioned or delayed), particularly when the need for such extension is caused by persons or matters over which the Developer has no control such as family or medical emergencies, acts of God, or other.

5. Completion of Improvements by Town

To the extent (a) construction of Improvements of a given Phase has been commenced by Developer, and (b) after notice to and opportunity by Developer to cure any alleged non-compliance by Developer in the construction of such Improvements, the Developer fails to complete the Improvements for such Phase in compliance with this Agreement, then the Town may, but shall not be obligated to, proceed with restoring or completing some or all of the remaining portions of the Improvements for such Phase to a condition satisfactory, in the reasonable discretion of the Town Board of Trustees, to the health, safety and welfare of the Town. The Town shall be entitled to draw on the Performance Guarantee in order to accomplish such restoration and/or completion. The Town must give the Developer at least thirty (30) days prior written notice of its intent to draw on the Performance Guarantee in order to permit Developer an opportunity to repair, restore or complete the non-compliant portion of the Improvements, or object to the Town’s assertion that such Improvements are non-compliant.

6. Development Standards and Procedures

a. Engineering Services

The Developer shall at its sole expense procure all engineering and landscaping services necessary and appropriate in conjunction with the development of the Property, which shall fully conform to the Town's applicable ordinances, standards and specifications. Professional services shall be performed by engineers, surveyors, architects, landscape architects, or other professionals duly licensed by the State of Colorado as may be appropriate. Construction and installation services shall not require such training or licensing.

b. Review

All applicable plans shall be approved by the Town in accordance with Town regulations. No construction of the Improvements shall occur without the required prior plan approval.
c. **Testing**

The Developer, at its sole expense, shall employ a professionally qualified, independent testing company to perform all testing of materials or construction that may reasonably be required by the Town to ensure compliance with applicable standards and specifications. Developer shall furnish the Town with certified copies of test results, and agrees to release and authorize full access by the Town and its designated representatives to all work-up materials, procedures and documents used in preparing the test results as requested by the Town.

d. **Inspection**

At all times during construction of the Improvements, and until final acceptance thereof by the Town, the Town shall have the right, but not the duty, to inspect materials and workmanship in order to ascertain conformance with the approved plans and all applicable standards and specifications under the Town Code. Developer shall reasonably cooperate and reasonably assist the Town to gain appropriate access to the areas designated for inspection. It shall also be the duty of the Developer to notify the Town upon discovery of any nonconformance with the said plans, standards and specifications. Inspection and acceptance of work by Town personnel shall not relieve the Developer of any responsibility with respect to completion of the Improvements.

e. **Street Access**

Developer shall, at its own expense, be responsible for keeping off-site streets used as construction routes, and rights-of-way clean of mud, rocks, and debris at all times during said construction. The Developer's work shall conform to the requirements for erosion control as described in statutes, ordinances, or regulations. Should the Developer fail to meet said requirements, subject to notice and opportunity to cure per Section 5, above, the Town may take corrective action and invoice the Developer at the Town's prevailing rate.

f. **Initial Acceptance of Improvements**

The Developer shall submit a Request for Initial Acceptance, including Certification of Completion, “as built” drawings of the Improvements and certified cost estimates of Public Improvements for a given Phase, to the Town upon completion of the Improvements for such Phase. Said Certification shall be submitted upon written oath or affirmation of the Developer that the Improvements have been fully paid for and Developer has fully paid all persons or entities having furnished labor or materials for the design, construction and installation of such Improvements. The Town, however, shall not be deemed to have accepted any payment responsibility or liability to third parties in conjunction with the ascertainment of such payment. The Town shall inspect such Improvements within ten (10) working days of the Town's receipt of the Developer's request for Initial Acceptance, unless unable to do so due to inclement weather or other natural conditions or conditions beyond the Town’s control. Upon a finding of
satisfactory completion of one or more of the components set forth in the respective Phase Design Plan, and in compliance herewith and all applicable ordinances and standards of the Town, the Town shall issue a Certificate of Initial Acceptance to the Developer, for the completed Improvements, which issuance shall not be unreasonably withheld, conditioned or delayed. Following the issuance of the Certificate of Initial Acceptance, the Developer may request that the Town release a portion of the Performance Guarantee correlating to the initially accepted Improvements, provided an acceptable Warranty Guarantee has been executed and delivered to the Town, and provided no mechanics lien statements have been filed with respect to the Project. Unless otherwise agreed by the Town, the warranty shall not begin to run as to any portion of the Improvements for an applicable Phase of the Project until all Improvements for such Phase are complete.

**g. Warranty**

(1) For a period of two (2) years from the date of initial acceptance, Developer warrants that all Improvements hereunder will be reasonably free from defects, including but not limited to defects in materials, workmanship, design, construction and installation, and that the Improvements otherwise fully materially comply with all applicable standards and specifications.

(2) A Warranty Guarantee shall be equal to fifteen percent (15%) of the total cost of the Improvements, as certified to the Town. The Warranty Guarantee shall be in the form of an Irrevocable Letter of Credit or other security deemed acceptable by the Town and conforming to the requirements applicable to the Performance Guarantee set forth at Section 3 hereof. The Warranty Guarantee shall provide security for the costs which may be incurred in repairing and/or replacing Improvements during a warranty period of two years following Initial Acceptance by the Town.

(3) In the event that any substantial repair or replacement is required to any of the Improvements during the warranty period and such repair or replacement is not timely made upon notice of defect or in any event before the expiration of the warranty period, then after not less than 30 days’ notice and opportunities to cure by Developer, Town may elect but shall not be obligated to:

(a) call the Warranty Guarantee and secure repair or replacement of the nonconforming Improvements, and/or

(b) order suspension of building permits until repair or replacement of any non-conforming Improvements have been completed And/or

(c) Take such other action as may be authorized in law or equity.
7. **Procedure for Final Acceptance of Improvements**

a. No earlier than sixty (60) days or later than (45) days prior to the expiration of the warranty period, the Developer shall submit a written request for Final Acceptance of Improvements, and within ten (10) days of such request the Town shall conduct a final inspection of the Improvements, unless precluded from doing so by weather or natural conditions or other matters beyond the Town’s control. If the Improvements subject to the inspection request fully conform to this Agreement and all applicable standards and specifications, and/or all repairs, if any are needed, have been made to bring same into such conformance, then the Town shall issue a Certificate of Completion and certify Final Acceptance of the Improvements to the Developer. After Final Acceptance the Developer may request, and the Town shall release the Performance and/or Warranty Guarantee.

b. If Developer fails to have Improvements finally accepted as provided in this Section 6, the Developer shall be in default of this Agreement and subject to Developer’s right to notice and opportunity to cure, the Town may exercise its rights to secure performance as provided by Section 3 and 5 hereof. In the event that the Developer has not requested Final Acceptance forty-five (45) days prior to the scheduled completion dates applicable, as may have been extended as herein provided, the Town shall have the right, but not the obligation, to at any time thereafter conduct a final inspection of the Improvements. If pursuant to Final Inspection requested by the Developer or initiated by the Town, any such Improvements are found to not conform to this Agreement, or applicable published standards and specifications of the Town Code, the Town shall have the rights set forth at Sections 3 and 5 and elsewhere herein.

c. Nothing herein shall be construed or deemed as requiring the Town to finally accept and release from warranty any Improvements that are defective or damaged.

8. **Rights of Way and Easements**

a. **Conveyance to Town**

(1) Prior to Initial Acceptance of Improvements, and unless such conveyances have been previously made to the Town, Developer by good and sufficient documents of conveyance shall convey to the Town in perpetuity all easements, rights of way, and fee title to all public roads, public open spaces, public improvements, and other public areas. Such conveyances shall be made without expense to the Town and free and clear of all encumbrances, as may be reasonably required to construct, replace and maintain the Improvements. Said instruments of conveyance shall be in a form acceptable to the Town attorney and shall be furnished to the Town for review prior to execution. In addition, prior to Initial Acceptance, the Developer shall submit to the Town a statement made under oath that all
persons and entities having provided labor and/or services and/or materials in design, construction or installation of the Improvements have been fully paid.

(2) In the event that the Developer is not record-title owner of a property interest that Developer is required to convey to the Town pursuant to subsections (1) and (2), above, it shall be the sole obligation of Developer to acquire such property interest, and convey it to the Town.

(3) The Developer shall be solely responsible to pay all general taxes attributable to the property interests conveyed to the Town until the date of conveyance, and at the request of the Town shall submit such estimated taxes, prorated to the date of conveyance, in conjunction with the conveyance.

9. Liability Limitations
   a. Indemnification

   The Developer agrees to indemnify and hold harmless the Town, and its officers, agents and employees, from and against all liability, claims, demands, and expenses, including court costs and attorney fees, on account of any injury, loss, or damage, which arises out of or is in any manner connected with the work to be performed under this Agreement, if such injury, loss, or damage is caused in whole or in part by, the negligent act or omission, error, professional error, mistake, accident or other fault of the Developer, any contractor or subcontractor of the Developer, or any officer, employee, or agent of the Developer, contractor or subcontractor. The obligations of this Section shall not apply to damages for which the Town shall become liable by final judgment to pay a third party as a result of the negligent act or omission, error, professional error, mistake, accident, breach of this Agreement or the Town code; or other fault of the Town.

   b. Insurance

   (1) The Developer agrees to procure and maintain in force during the term of this Agreement, at its own cost, the following coverages: Commercial General or Business Liability Insurance with Minimum combined single limits of Nine Hundred Thousand Dollars ($900,000) for any one occurrence, with respect to each of the Developer's owned, hired or non-owned vehicles assigned to or used in performance of the services. In the event that the Developer's insurance does not cover non-owned automobiles, the requirements of this paragraph shall be met by each employee of the Developer who utilizes an automobile in providing services to the Town or the Developer under this Agreement.
(2) Developer shall insure that all contractors and subcontractors providing services provide Workers' Compensation as required by the Labor Code of the State of Colorado and Employers' Liability Insurance;

(3) If approved by the Town in its reasonable discretion, evidence of qualified self-insured status may be substituted for one or more of the foregoing insurance coverages.

(4) Developer shall at a minimum procure and maintain insurance coverages listed herein. Such coverages shall be procured and maintained with forms and insurers reasonably acceptable to the Town. All coverages shall be continuously maintained to cover all liability, claims, demands, and other obligations assumed by the Developer pursuant to retroactive dates, and extended reporting periods shall be procured to maintain such continuous coverage.

(5) A Certificate of Insurance shall be completed by the Developer's insurance agent as evidence that policies providing the required coverages, conditions, and minimum limits are in full force and effect, and shall be subject to review and approval by the Town prior to commencement of any services under this Agreement. The Certificate shall identify this Agreement and shall provide, if such notice is available, that the coverages afforded under the policies shall not be canceled, terminated or materially changed until at least thirty (30) days prior written notice has been given to the Town.

(6) Failure on the part of the Developer to procure or maintain policies providing the required coverages, conditions, and minimum limits shall constitute a material Breach of Agreement and, if said breach is not cured within ten (10) days of written notice by Town to Developer, Town may suspend the operation of this Agreement, and issue a Stop Work Order for any ongoing work on the Project, at its discretion, Town may procure or renew any such policy or any extended reporting period thereto and may pay any and all premiums in connection therewith and all monies so paid by Town shall be repaid by the Developer to Town upon demand, or Town may offset the cost of the premiums against any monies due to Developer from Town, or the Town may cease to issue building permits or new certificates of occupancy until the defect has been remedied.

(7) The Town reserves the right to request and receive a certified copy of any policy and any endorsement thereto. Developer agrees to execute any and all documents necessary to allow the Town access to any and all insurance policies and endorsements pertaining to this particular job.

(8) The parties hereto understand and agree that the Town, its officers, and its employees, are relying on, and do not waive or intend to waive by any
provision of this Agreement, the monetary limitations (currently $300,000 per person and $900,000 per occurrence) or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act, Sections 24-10-101, et seq., C.R.S., as from time to time amended, or otherwise available to the Town, its officers, agents or employees.

c. **Nonliability**

Developer acknowledges that the Town's review and approval of drawings, plans, or specifications for the development of the Property is done in furtherance of the general public health, safety and welfare, and that no specific relationship with, or duty of care to the Developer or third parties is created or assumed by such review approval, or is any immunity waived, as is more specifically set forth at Section 24-10-101, et seq. C.R.S., Colorado Governmental Immunity Act.

No one, individually or otherwise, other than the parties hereto, shall acquire, as a result of this Agreement, any rights, claims or obligations from or against the Town, its agents, employees, or officers. Actions by the Town against Developer to enforce any provision of this Agreement shall be at the sole discretion of the Board of Trustees of the Town. No third parties shall have any right to require any action by the Town pursuant to this Agreement; and this Agreement shall not create a liability on the part of or be a cause of action against the Town for any personal or property damage that may result to any third parties from the failure of Developer to perform or construct the Improvements herein specified.

10. **Enforcement and Remedies**

a. **Breach of Agreement**

In the event the Developer fails to timely comply with any of the terms, conditions, covenants and undertakings hereof, and if such noncompliance is not cured and brought into compliance within thirty (30) days of written notice of breach to the Developer by the Town, unless the Town in writing designates a longer cure period reasonably requested by the Developer, then the Town may call for payment of the Performance or Warranty Guarantee. The Town may also during the cure period withhold any additional building permits, certificates of occupancy, or provision of new utilities fixtures or services. Nothing hereunder shall be construed to limit the Town from pursuing any other remedy at law or in equity which may be appropriate under the statutes and ordinances, and applicable laws and legal standards of the State of Colorado or the United States, before any court of competent jurisdiction. Such remedies shall be cumulative. Notice by the Town to the Developer shall specify the conditions of default.

In the event the Town fails to comply with any of the terms, conditions, covenants and undertakings hereof, and if such noncompliance is not cured and brought into compliance within thirty (30) days of written notice of breach to the Town by the Developer, then the
Developer may pursue its remedies against the Town. However, the remedies available to the Developer against the Town shall be limited solely to specific performance and shall not include any claim for monetary relief.

b. **Non-Waiver**

The failure of either Party to take timely action with respect to any breach of any term, covenant or condition hereof shall not be deemed to be a waiver of such performance by the other Party, or a waiver of any subsequent breach of the same or any other term, covenant or condition herein contained.

11. **Binding Effect**

This Agreement shall be binding on the parties hereto, their respective successors and assigns, and shall be deemed to constitute a covenant running with the land. The transfer of the Property to a successor shall relieve Developer of any liability for any actions or inactions occurring on or after the date of such transfer and any such successor and assign shall be jointly and severally liable for performance of this Agreement.

12. ** Entire Agreement**

This Agreement shall constitute the entire agreement between the parties. No subsequent amendment hereto shall be valid unless made in writing and properly executed by the parties hereto.

13. **Notice**

Any notice given under the terms of this Agreement shall be made in writing, and shall be deemed made upon personal service or upon mailing by United States Mail, postage prepaid, to the other, and unless amended by written notice, to the following:

- **Town Manager**
  Town of Grand Lake
  Post Office Box 99
  Grand Lake, Colorado 80447

  With a copy to:

- **Scotty P. Krob**
  Krob Law Office, LLC
  8400 E. Prentice Ave., Penthouse
  Greenwood Village, CO 80111

  RTA Grand Lake Lodge, LLC
  2082 Michelson Drive, 4th Floor
14. **Applicable Law, Jurisdiction, Venue and Severability**

This Agreement is to be governed and construed according to the laws of the State of Colorado. Any action or claim filed to enforce this Agreement or relating directly or indirectly to the provisions, performance or enforcement of this Agreement shall be filed in the District Court of Grand County, State of Colorado. In the event that any provision of this Agreement is held to be in violation of the Town's ordinances or the laws of the State of Colorado or the United States and thereby rendered unenforceable, such unenforceable provision shall be ineffective without invalidating the remaining provisions of this Agreement.
IN WITNESS WHEREOF, and agreeing to be fully bound by the terms of this Agreement the parties have set their hands below on the dates indicated.

TOWN OF GRAND LAKE

By: ____________________________________________ Date

James C. Peterson, Mayor

ATTEST:

_________________________________________________

Town Clerk

STATE OF COLORADO )
) ss.
COUNTY OF _______________

The foregoing instrument was acknowledged before me this ______ day of ________, 2019 by _________________________________.

Witness my hand and official seal.

My commission expires:

_________________________________________________

Notary Public
RTA GRAND LAKE LODGE, LLC a Delaware Limited Liability Company

By: ___________________________ Date
    Francis Corso, Vice President

STATE OF COLORADO )
 ) ss.
COUNTY OF ____________

The foregoing instrument was acknowledged before me this ______ day of ________, 2019 by ________________________________________

Witness my hand and official seal.

My commission expires:

__________________________________________

Notary Public
EXHIBIT A
PROPERTY
EXHIBIT B

SITE PLAN
SECTION 02713
WATER SYSTEM

02713 Water System
SECTION 02713
WATER SYSTEM

PART A - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

B. Additional information concerning water distribution systems may be found on the Civil Drawings. In case of conflict between the drawings and the information specified herein, the more stringent requirements shall govern.

1.2 SUMMARY

A. Work Included: Excavation, exploratory excavation (pothole), backfill, bedding, soil stabilization, ground water removal, connection to existing mains, and installation of pipe, valves, fittings, valve boxes, and all necessary appurtenances. Also includes removal and replacement of existing paving or concrete where required, haul and import of adequate backfill material to meet compaction requirements and removal of existing thrust blocks where necessary.

B. Definition:

1. Trench Excavation: Excavation of all material encountered along trench other than rock excavation.

C. All items under this section shall, at a minimum, conform to Denver Water Board Standards.

1.3 SUBMITTALS

A. Submit shop drawings or product data showing specific dimensions and construction materials for:

1. Valves and Valve Boxes
2. Fittings
3. Piping
4. Water Meters
5. Fire Hydrants

B. Test Reports: Submit two (2) copies of laboratory gradation tests for bedding and trench stabilization materials, concrete mix design, asphalt mix designs, and compression test.

C. Permits: Submit copies of all permits issued for project. Contractor is responsible for obtaining all applicable City, County and State permits for the project.

D. Certificates: Submit two (2) copies of acceptance from Health Department prior to placing water system in service.
E. Locates: Contractor must submit two (2) copies of utility locate drawings/receipts prior to beginning construction.

1.4 JOB CONDITIONS

A. Environmental Requirements: Except by specific written authorization, cease concreting when descending air temperature in shade and away from artificial heat falls below 35 degrees F and there is frost in subgrade. When concreting is permitted during cold weather, temperature of mix shall not be less than 60 degrees F at time of placing.

B. Immediately pump or bail out water found in excavations, whether rain or seepage. Coordination and use of electric power is the Contractor’s responsibility. Excavations must be kept free from water at all times.

C. It shall be the responsibility of the Contractor to take all measures and furnish all equipment and labor necessary to control the flow, drainage and accumulation of water as required to permit completion of the work under this section to avoid damage to all work at no additional cost to the Owner.

D. It shall be the responsibility of the Contractor to take all measures and furnish all material, equipment and labor necessary to provide adequate backfill material as specified herein.

E. Water Service shall remain operational at all times until service change over is completed. Provide Owner of residences with water as needed during outages.

1.5 PROJECT RECORD DOCUMENTS

A. Maintenance of Documents: Store documents apart from drawings used for construction. File submitted documents in accordance with the specification’s section numbers. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.

B. Recording: Label each document “PROJECT RECORD” in neat, large, printed letters. Record information concurrently with construction progress. Do not cover work until required information is recorded. Marking of project records shall be legible and with a dark pen or pencil. Ink shall not be water based due to easy smearing. Mark drawings to record actual construction including field dimensions, elevations, details, changes made by a modification, details not on original drawings, horizontal and vertical locations of underground utilities and appurtenances referenced to a minimum of two permanent surface improvements, and depths of various elements of work in relation to project datum.

C. Submission: Accompany submittal with transmittal letter in duplicate containing date, project title and number, Contractor’s name, address and telephone number, title and number of each record document, and signature of Contractor or his authorized representative. Contractor shall submit two blue line drawings depicting all as-built information.

1.6 PROTECTION
A. Barricades and Safety Provisions: Place and maintain until completion of work adequate barricades, construction signs, warning lights and guards to avoid property damage and to protect persons from injury. Flares with open flames will not be permitted. Protect all materials, equipment, pipe, and earth piles that may serve as hazards to vehicular or pedestrian traffic by barricades or guards and warning lights.

B. Shoring: Provide and maintain all sheeting, shoring and bracing required to safely retain earth banks. Protect adjoining grades and structures from caving, sliding, erosion or other damage, and suitable forms of protection against bodily injury; all in accordance with applicable codes and governing authorities.

Do not remove any sheeting unless the pipe strength is sufficient to support the trench loads based on trench width measured to the back of sheeting. Remove sheeting and shoring gradually as excavation backfilling progresses to protect the construction or other structures, utilities, or property. Do not attempt removal of sheeting in one operation after backfilling is complete.

C. All work must comply with latest OSHA requirements.

D. Utilities: Protect from damage existing utility lines shown on drawings or locations of which are made known to contractor prior to work, and utility lines constructed during construction operations of the project. Hand excavate within six inches of known piping or objects to prevent damage from equipment. Before commencing work, obtain information concerning location, type, and extent of concealed existing utilities on the site and adjacent properties. Repair damage to utilities at no cost to Owner.

E. Granular Fill: Protect existing granular fill adjacent to existing structures from dirt that would impede free drainage. Remove and replace any portions of granular fill that become contaminated with dirt.

F. Drainage: Maintain the excavations and site free from water throughout the work. Remove any water encountered in the trench to provide firm subgrade, to permit joints to be made dry at the final grade, and to prevent entrance of water into the pipeline. Accomplish the foregoing by the use of sumps and gravel blankets, well points, or drain lines.

Rock, gravel, and other appurtenances used to keep trenches free from water or used to add support to installed piping is considered incidental to construction and all costs shall be the responsibility of the Contractor.

G. Survey Control Range Boxes: Protect existing survey control monuments from damage. Contractor will be responsible for replacement or repair of any monument damaged or destroyed. Replacement of monuments must be performed by a qualified land surveyor.

PART 2 – PRODUCTS

2.1 PIPE AND FITTINGS

A. Pipe

October 2016 Town of Grand Lake Water System Specifications 02713 -4
4. Fittings - Ductile Iron: AWWA C110, pressure rating 250 psi mechanical or push-on joint, AWWA C111, or flanged joint, AWWA C110. All fittings cement-mortar lined, AWWA C104. Bituminous outside coating one mil thick.

2.2 VALVES

A. General: Open Right. All valves supplied under this Specification shall be designed and manufactured in accordance with AWWA C509, with the following additional requirements or exceptions.

B. Valve Description: Valves shall be iron body, resilient seated gate valves with non-rising stems. If the resilient seats are bonded to the gates, the gates shall be totally encapsulated with the material, with the exception of any guide tabs or slots. Valve bodies shall be designed to allow lifting of the valves by the bonnet flange, gland flanges or other appurtenances.

C. Installation: Valves will be installed with the stem vertical in buried horizontal water lines without gearing, bypasses, rollers or tracks.

D. Service: All valves shall be suitable for frequent operation as well as service involving long periods of inactivity. Valves shall be capable of operating satisfactorily with flows in either direction, and shall provide zero leakage past the seat. The operating pressure for all sizes shall be 200 psig.

E. Valve Stems: Valves shall be supplied with stems having a minimum yield strength of 40,000 psi and a minimum elongation in 2 inches of 12% and shall be made of bronze per ASTM B 763, Copper Alloy No. C99500 or stainless steel per ASTM A 276, Type 304 or 316, or AISI 420. Valves shall be supplied with wrench nuts in accordance with AWWA C509. Stem seal shall consist of two (2) O-rings in accordance with AWWA C509. The valves shall open by turning to the right.

F. Bolting Material: The bonnet, gland bolts, and nuts shall be in accordance with ASTM F 593, Type 304 stainless steel or electro-plated with zinc or cadmium. The hot-dip galvanizing process is not acceptable.

G. End Connections (as required):

1. Flanges: Flanges shall be sized and drilled in accordance with ANSI B16.1 Class 125. Flanges shall be machined to a flat surface with a serrated finish in accordance with AWWA C207.
2. Mechanical Joint: All components of this type of joint shall conform to AWWA C111. The tee-head bolts and hexagon nuts shall be fabricated from a high-strength, low alloy steel known in the industry as Cor-Ten, Usalloy, or shall be ductile iron Durabolt.

Accessories for the mechanical joint, consisting of the gasket, gland and fasteners shall be furnished and packaged separately from the valves. Each package shall be labeled in such a manner as to provide for proper identification and the number of units per package or bundle.

H. Testing: Each valve, after shop assembly, shall be given the operation and hydrostatic tests in accordance with AWWA C500.

I. Coating: Valves shall have a fusion-bonded epoxy coating in accordance with AWWA C509 or AWWA C515 with a minimum DFT of 10 mil. Machined flange faces shall be shop coated with a rust preventive compound; they shall not be painted or coated with the same coating as the body.

J. Certification: The manufacturer shall furnish a sworn statement that the inspection and all the specified tests have been made and the results thereof comply with the requirements of the applicable Standard(s) herein specified. A copy of the Certification including compliance with NSF/ANSI 61 shall be sent to Denver Water.

K. Acceptable Manufacturers: The following brands are the only ones to be considered as resilient seat gate valves under this Specification:

Mueller
Clow

L. Valve Boxes: Tyler screw-type 6 inch cast iron valve box assembly Series 6860 with No. 160 oval base with cover marked "water".

1. Materials: Valve box parts shall be made of gray cast iron, ASTM A 48, Class 35.

2. Box Description: Valve boxes shall be the three-piece adjustable screw type. The top section shall be 16 inches long.

M. Service Boxes: Curb stop boxes for 3/4 inch and one inch curb stops shall be A.Y. McDonald Series 5700, 2-1/2 inch shaft, extension as required.

2.3 HYDRANTS

A. GENERAL: Dry-barrel fire hydrants shall be designed and manufactured in accordance with AWWA C502 with the following additional requirements or exceptions.

B. SERVICE: Fire hydrants supplied under these Specifications shall be designed for a working pressure of 150 psi.

C. SIZE OF HYDRANT Hydrants shall have a main valve opening size of at least 5 1/4 inches.
D. TYPE OF HYDRANT Hydrants shall be the three-way type with one pumper nozzle and two hose nozzles located on the same horizontal plane at least 18 inches above ground line.

E. INLET CONNECTION The hydrant base shall be provided with a mechanical joint inlet to accommodate 6- inch DI pipe complete with plain rubber gasket, gland, bolts, and nuts in accordance with AWWA C111. Bolts and nuts shall be a high strength, low alloy, corrosion-resistant steel, known in the industry as Cor-Ten, Usalloy, or Durabolt. Incorporated into the base shall be two lugs for the rodding of pipe. Mechanical joint accessories shall be attached to the hydrant for shipment.

F. MAIN VALVE ASSEMBLY The main valve of the hydrant shall be the compression type that closes with water pressure. The seat ring shall be bronze with a machined face and external threads for threading into a bronze drain ring or a bronze bushed shoe to provide bronze to bronze seating for the main valve. The assembly shall be sealed with O-rings. The main valve shall be a replaceable type fabricated of a resilient material with a threaded bottom plate or nut, with a seal to prevent leakage of the hydrant shaft. The upper valve plate material shall be bronze or epoxy coated DI. The valve assembly shall include one or more drain valves that work automatically with the main valve to drain the barrel when the main valve is in the closed position. Drain tubes shall be bronze lined and sized large enough for the barrel to drain within 12 minutes when sized for a 5 foot trench depth. The components of the main valve assembly shall be designed so that removal of the assembly from the barrel may be accomplished without excavation.

G. OPERATING SHAFT AND NUT The operating nut shall be bronze or DI and pentagon shaped with a finished height of 1 1/8 inch. The dimensions from point-to-flat shall be between 1 1/4 and 1 3/8 inch from the top to the bottom of the nut. Bushings in the bonnet shall be constructed to prevent the operating nut from traveling during opening or closing.

H. CERTIFICATION The manufacturer shall furnish a sworn statement stating that furnished hydrants are in accordance with applicable provisions of AWWA C502 as modified or supplemented herein. A copy of the Certification, including interior epoxy paint compliance with NSF/ANSI 61, shall be provided to Denver Water.

I. TRAFFIC FEATURES Hydrants shall be equipped with traffic features that include a breakaway flange or lug system with a shaft coupling.


2.4 BEDDING

A. All pipe shall be bedded in accordance with Denver Water Standards and in conformance with drawings.

B. Pipe:

1. Well graded sand, percent by weight passing square mesh sieves: 3/8" 100; No. 4 70-100; No. 8 36-93; No. 16 20-80; No. 30 8-65; No 50 2-30; No. 100 1-10; No. 200 0-3.
2. Pipe bedding may be clean, well-graded squeegee sand conforming to the following total percentages passing by weight limits when tested by means of laboratory sieves: 3/8", 100%; No. 200 0-50%.


2.5 ROAD BASE AND CONCRETE BASE COURSE AGGREGATE

A. Aggregates shall conform to permit requirements or gradation as follows: 1 1/2" 90-100; 3/4" 50-90; No. 4 30-50; No. 200 3-12. Liquid limit shall not be greater than 30. Plasticity Index shall not exceed 6

2.6 CONCRETE MATERIALS

A. General: Contractor is responsible for replacement of curb, gutter, sidewalks, and cross pans as per authority having jurisdiction. Removal and replacement of the above items will be included under piping bid item. All materials furnished from sources agreed to by Engineer.

B. Cement: ASTM C-150 for Portland Cement, Type II. Cement which has become partially set or contains lumps of caked cement shall be rejected.

C. Aggregate: ASTM C33.

D. Water: Water used in mixing or curing concrete shall be clean and free from oil, acids, salt, alkali or organic materials harmful to concrete.

2.7 CONCRETE MIX

A. Design Mix:
   1. Proportions:
      Cement 5-1/2 sacks per cubic yard
      Coarse aggregate-43%
      Water-5.5 gallons per sack
      Maximum size aggregate-3/4"
   2. Slump: 4" maximum
   3. Strength: minimum 4,000 psi at 28 days
   4. Air Content: 5%-7%

B. Job-Mixed Concrete: Mixed in drum mixer conforming to Concrete Paving Mixer Standards of Mixer Manufacturers Bureau of Associated General Contractors of America. Mixer shall be capable of combining aggregates, cement, and water into thoroughly mixed and uniform mass. Discharge entire contents of drum before recharging. Continue mixing of each batch for not less than 10 minutes after all materials are in drum.

C. Ready Mixed Concrete: Proportioned, mixed, and transported in accordance with ASTM C94. Any concrete not plastic and workable when it reaches project shall be rejected.

D. Reinforcement:
1. Deformed and Plain Billet-Steel Bars: AASHTO M31.

E. Joint Material: AASHTO M173.

F. Curing Materials:
   1. Burlap Cloth from Jute or Kenaf: AASHTO M182.
   2. White Liquid Membrane: AASHTO M148, 1 gal/150 SF.

2.8 MORTAR

A. The mortar shall consist of one part cement, 0.15 part lime, and three parts sand, measured by volume. The cement, lime and sand shall be first mixed dry to a uniform color in a suitable box or batch mixer and then mixed with water thoroughly; the water being added gradually until the required consistency is obtained. Mortar shall be mixed in batches of such size as will be used immediately. Retempered mortar or any mortar which has been mixed for more than one-half hour shall not be used. When mortar is molded into briquettes one square inch in cross-section, it shall attain an ultimate tensile stress of 125 pounds per square inch after one day in air and six days in water and 175 pounds per square inch after one day in air and twenty-seven days in water.

PART 3 – EXECUTION

3.1 TRENCHING

A. Trench Excavation: Excavate to depths required. Confine excavation to work limits.
   Length of trench permitted to be open at any one time may be limited if, in the opinion of the Engineer, such limitations are necessary for the safety and convenience of the public; however, in no case shall the length of open trench exceed 150 feet. All excavation, trenching, shoring and stockpiling of excavated materials shall be in strict compliance with the applicable OSHA (Occupational Safety and Health Act) rules and regulations and the latest edition of CDOT Standard Specifications.

B. Rock Trench Excavation: Prior to removal, notify Engineer of areas requiring rock excavation. Blasting is not allowed without written prior approval. Prior to blasting, provide minimum 24-hour notification to Engineer. Where blasting is determined to be necessary, place suitable coverings over trench to confine materials lifted by blasting, within limits of trench or other excavation. Rock excavation which has not been observed and approved by Engineer or Owner’s Representative shall not be eligible for payment.

C. Exploratory Excavation: It shall be the Contractor’s responsibility to excavate and locate all existing utilities which may affect construction of the water facilities. All exploratory excavations shall occur far enough in advance to permit any necessary relocation to be made with minimum delay and to verify existing vertical and horizontal location to determine alignment for the proposed water line. All costs incurred by the Contractor in making exploratory excavations shall be considered to be included in the unit price bid for constructing each section of sewer line or the associate structures.
3.2 UNSTABLE TRENCH BOTTOM

A. Where trench does not have sufficient strength to support pipe and bedding, or stream crossings are encountered, use one of following methods to prepare trench bottom as approved by Engineer.

1. Embankment: Clear and strip existing surface of all unacceptable material. Place embankment material agreed to by Engineer, compact 95% AASHTO T99.
2. B. Aggregate Trench Bottom, percent by weight passing square mesh sieves: 1-1/2", 90-100; 3/4", 50-90; No. 4, 30-50; No. 200, 3-12.

3.3 BEDDING

A. Install in conformance with drawings. Place from minimum of 6" below bottom of pipe to top of pipe. May taper to edge of trench.

3.4 UNDERDRAIN

A. Water seeping from trench banks, but not flowing in trench bottom: Install gravel underdrain in accordance with drawings. Where directed by Engineer install concrete cutoff wall to prevent water migration within trench. Wall shall extend 2' beyond each side of pipe with No. 4 @ 12" O.C.E.W. reinforcement.

B. Water flowing in trench bottom: Install underdrain pipe in addition to gravel where water volume will fill a 4" pipe 1/4 full. Where cut-off walls are constructed, underdrain pipe shall be plugged to prevent transmission of flow.

3.5 PIPE INSTALLATION

A. General: Deliver, handle, store, and install in accordance with the pipe manufacturer’s recommendations and the applicable paragraphs of AWWA C600, AWWA C603, and ASTM D2321.

B. Carefully examine all pipe and fittings for cracks and other defects. Groove in bells of ductile iron pipe to be full and continuous or be rejected. Remove all foreign matter from interior and ends of pipe and appurtenances before lowering into trench. Carefully lower all pipe, fittings, valves, and hydrants into trench piece by piece to prevent damage to pipe materials, protective coatings, and linings. Do not dump into trench. If pipe cannot be lowered into trench and into place without getting earth into it, place heavy, tightly woven canvas bag over each end leave in place until joints are made. During pipe laying, place no debris, tools, clothing or other materials in pipe.

C. Keep trenches free from water during pipe laying and jointing. Dewatering of trench considered as incidental to construction and all costs included in contract prices. When pipe laying is not in progress, close open ends of pipe by watertight plug, or other means approved by Engineer.

D. Dewatering shall be accomplished by the use of well points, sump pumps, rock or gravel drains placed below subgrade foundations or subsurface pipe drains. All water shall be disposed of in a suitable manner without being a menace to public health or causing
public inconvenience. No water shall be drained into other work being completed or under construction.

E. The dewatering operation shall continue until such time as it is safe to allow the water table to rise in the excavations. Pipe trenches shall contain enough backfill to prevent pipe flotation.

F. Water shall not be allowed to rise until the concrete has set a minimum of twenty-four (24) hours, and the forms have been removed. Water shall not be allowed to rise unequally against unsupported structural walls.

G. Deflection of Pipe: Do not exceed deflection limits for each type of pipe as recommended by pipe manufacturer. Typical values are:


<table>
<thead>
<tr>
<th>Pipe size in Inches</th>
<th>3</th>
<th>4</th>
<th>6</th>
<th>8</th>
<th>10</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bell - Tite</td>
<td>1.57</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical Join</td>
<td>2.60</td>
<td>2.23</td>
<td>1.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locked Mechanical J</td>
<td>0.94</td>
<td>0.86</td>
<td>0.63</td>
<td>0.47</td>
<td>0.39</td>
<td>0.30</td>
</tr>
<tr>
<td>Super Lock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.26</td>
<td></td>
</tr>
<tr>
<td>River Cross</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.66</td>
</tr>
</tbody>
</table>

H. Pipe Jointing:

1. General: Cut pipe for inserting valves, fittings, or closure pieces in neat and workmanlike manner with no damage to pipe or lining. Leave smooth end at right angles to axis of pipe.

2. Mechanical Joints: Thoroughly clean last 8" of spigot and inside bell to remove oil, grit, tar, and other foreign matter. Coat spigot and gasket with solution furnished by pipe manufacturer. Slip cast-iron gland on spigot end of pipe with lip extension of gland toward spigot end. Coat gasket with joint lubricant and place on spigot end of pipe to be laid, with thick edge toward gland.

Push entire section forward to seat spigot in bell of pipe in place. Press gasket into place within bell, even around entire joint. Move ductile-iron gland along pipe into position for bolting all nuts with suitable torque wrench. Alternately tighten nuts 180 degrees apart to produce equal pressure on all parts of gland.

<table>
<thead>
<tr>
<th>Pipe Size Inches</th>
<th>Bolt Size Inches</th>
<th>Range of Torque Ft.-Lb.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3&quot;</td>
<td>5/8</td>
<td>45 – 60</td>
</tr>
<tr>
<td>4&quot;-24&quot;</td>
<td>3/4</td>
<td>75 – 90</td>
</tr>
</tbody>
</table>

3. Push-on Joints: Thoroughly clean exterior 4" of pipe spigot and inside of adjoining bell to remove all oil, grit, tar, and other matter. Place gasket in bell with large round side of gasket pointing inside pipe bell. Apply thin film joint lubricant over gasket's entire
exposed surface. Wipe spigot end of pipe clean and insert into bell to contact gasket. Force pipe into bell to manufacturer’s jointing mark.

4. Flanged Joints: Thoroughly clean faces of flanges of all oil, grease, and other material. Thoroughly clean rubber gaskets and check for proper fit. Assure proper seating of flanged gasket. Tighten bolts so pressure on gasket is uniform. Use torque wrenches to insure uniform bearing. If joints leak when hydrostatic test applied, remove and replace gaskets and retighten bolts.

I. Thrust Restraint: Install in accordance with Denver Water Standards and drawings. Removal of existing thrust blocks and rodding is the sole responsibility of the Contractor. Any damage caused by the removal of thrust blocks, regardless of size, or rodding shall be paid for by Contractor.

3.6 VALVES AND HYDRANTS

A. Carefully inspect valve and hydrant before installation. Clean interior. Operate valve and hydrant to determine parts in proper working order, with valves seating and drain valve operating properly. Set plumb and securely brace into place. Set hydrant with bury line at finish grade, with hose nozzles parallel to and pumper nozzle facing pavement, at least 6' behind curb or sidewalk and 18' from property line or as shown on drawings. Provide drainage pit having 9 square feet of surface area and 2' of depth below seep hole. Backfill pits with 1-1/2" washed rock to 6" above barrel drain hole. Provide thrust blocking at bowl of each hydrant as shown on drawings. Do not obstruct barrel drain hole. Hydrants and valves backfilled by installing 1-1/2" aggregate road base to subgrade. Valve boxes centered and plumb over operating nut. Valve boxes supported by bricks or other means to prevent any shock or stress transmitted to pipe or valve. Set valve box covers to just below subgrade level to prevent damage during construction of surfacing if applicable. Adjust to grade of surfacing.

3.7 SANITARY SEWER CROSSING

A. Normal Conditions: Whenever possible lay water mains over sanitary sewers to provide vertical separation of at least 18" between invert of water main and crown of sewer.

B. Unusual Conditions: If above separation cannot be met, use following:

1. Sewer passing over or less than 18" under water main.
   a. One continuous length of watertight pipe 20' long centered on water main. Joints between different pipes encased in concrete 6" thick and extending 6" either side of joint. Pipe shall be Ductile iron Class 50 with epoxy lining specifically designed for domestic sanitary sewer use, or
   b. Sewer pipe encased in 6" concrete around pipe, and extend 10' either side of water main

2. Water mains passing under sewers: If vertical separation less than 18" provide structural support for sewer.

3.8 CONCRETE WORK

C. Removal: Existing surface to be saw cut leaving a clean break line. Remove and dispose of existing surface and aggregate base course leaving 6" undisturbed subgrade lip on each side of trench.

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D. **Subgrade/Base Course:** Check for soft spots by proof-rolling or other means prior to setting forms. Remove soft yielding material and replace. Compact to 95% AASHTO T180. Wet to optimum moisture to 6" deep, not more than 12 hours prior to placement so subgrade will not absorb moisture from concrete.

Test for crown and/or elevation by subgrade planer to assure specified thickness. If additional material is used to bring subgrade to correct elevation, compact to specification. Before placing concrete, clean subgrade of all loose materials. No disturbance inside forms after fine grading subgrade.

E. **Placement:** Place to required depth and width conforming to drawings. Place concrete as uniformly as possible in order to minimize amount of additional spreading. Place and consolidate with suitable tools to avoid formations of voids, honeycomb or pockets. Well vibrated and tamped against forms.

F. **Retempering:** Do not retemper concrete or mortar which has partially hardened by remixing with or without additional cement, aggregate, or water. Provide concrete in such quantity as is required for immediate use.

G. **Curing:** Protect against loss of moisture, rapid temperature change, from rain, and flowing water for not less than two days from placement of concrete. Immediately after finishing, cover concrete surface with curing medium which is applicable to local conditions as approved by Engineer. Protect exposed edge of concrete slabs by removing forms immediately to provide these surfaces with continuous curing treatment.

3.9 **BACKFILL**

A. **One Foot Over Pipe:** Excavate pipe cover material from material within work limits which contains no stones larger than 2" in diameter. If sufficient acceptable backfill material is not available, segregate or screen out large stones or provide acceptable material from other excavations in work under this Contract or provide acceptable imported material to obtain minimum compaction at no cost to Owner. Cover material shall be clean soil, free from organic materials, chunks of soil, frozen material, debris or other unsuitable materials. Place and compact starting at top of pipe bedding extending upwards to 1' above top of pipe. Place in lifts to a density of 95%, AASHTO T99, at a point 6" above top of pipe.

B. **Remainder of Trench:** Backfill with same materials excavated from work limits unless unsuitable. No boulders over 6" in diameter in top 12" of trench. No backfill material with boulders larger than 18" in diameter. Mound excess material over trenches which are not under pavement. No noticeable settlement in trench at end of warranty period.

C. **Flow Fill Backfill:** In accordance with County Requirements. To be used for all services and main line connection crossing the street perpendicular.

3.10 **COMPACTION**

A. Demonstrate method of compaction. Engineer will test compacted demonstration section for uniform density throughout depth of each lift. Alter construction methods until acceptable to Engineer. Continue same procedure until significant change in soils.
occurs, or compaction is not being achieved, then demonstrate new method. Soil which cannot meet compaction requirements will be replaced with a suitable material which will compact, at no cost to the Owner.

B. Compaction requirements for all trenches within limits of pavement, shoulders, or back of curbs:

1. Predominately cohesive soils where AASHTO T99 procedures are applicable: Compact uniformly throughout each lift to 95%, AASHTO T99.
2. Predominately rock, to 18” in diameter: Place in loose lifts up to average rock dimension. Placing of occasional boulders of sizes larger than maximum layer thickness may be agreed to by Engineer, provided material is carefully placed and large stones well distributed with voids completely filled with smaller stones, earth, sand, or gravel. Level and smooth each layer to distribute soils and finer fragments of earth. Wet each loose layer as necessary to facilitate compaction prior to placing additional lifts.
3. Trenches outside pavement: Compact to 85% AASHTO T99.

3.11 PAVEMENT REMOVAL AND REPLACEMENT

A. Sawcut existing surface to create clean break line. Existing asphalt or concrete road may be thicker than required patch back. Remove and dispose of existing surface and aggregate base course. Leave 6” undisturbed subgrade lip on each side of trench. After trench has been backfilled and properly compacted, place aggregate base course in accordance with permit requirements or minimum thickness in these specifications. Compact aggregate base course to 95% AASHTO T180. Replace pavement in accordance with permit requirements or minimum thickness in these Specifications. Compact asphalt to 95% ASTM D1559; consolidate concrete with vibrators.

3.12 TRAFFIC REGULATION

A. Conformance: “Manual of Uniform Traffic Control Devices,” U.S. Department of Transportation, or applicable statutory requirements or authority having jurisdiction.

1. Unless otherwise authorized, keep at least one lane of traffic open at all times.
2. When work is not in progress, keep all traffic lanes open.

B. Keep traffic areas free of excavated material, construction equipment, pipe and other materials and equipment.

C. Warning Signs and Lights: Protect all roadways by effective barricades on which are placed acceptable warning signs. Provide suitable barricades and warning signs for open trenches, other excavations, and obstructions. Illuminate by means of warning lights all barricades and obstructions from sunset to sunrise.

D. Flagmen where required are to provide for public safety and regulation of traffic.

E. Roadway Usage Between Operations: At all times when work is not actually in progress, Contractor shall make open, passable, and maintain to traffic such portions thereof as may be agreed upon between Contractor and District and all other authorities or parties having jurisdiction over properties involved.
3.13 UTILITIES ENCOUNTERED

A. Protection of all existing gas, water, sewer services, drains, cable, telephone lines, and electric lines encountered during construction is the Contractor's responsibility. If utilities are disturbed, they shall be maintained and/or restored to original condition at the Contractor's expense. Backfill around utilities shall be adequately compacted to assure permanent stability.

3.14 FIELD QUALITY CONTROL

A. Notify Engineer at least 24 hours in advance of pipe being laid in any trench. Cover no pipes until observed by Engineer. Notify Engineer at least 48 hours before pipe is to be tested. All water mains are to be disinfected, flushed, and hydrostatically tested per Denver Water Department Regulations.

B. Hydrostatic Testing:

1. General: Make pressure and leakage tests on all newly laid pipe. Test two or more valved sections not to exceed 1000 feet. Test first section of pipe laid to verify if watertight. Lay no additional pipe until first test section has passed tests.

2. Furnish following equipment and materials for tests, unless otherwise directed by Engineer:
   - 2 graduated containers
   - 2 Pressure gauges
   - 1 Suitable hose and suction pipe as required

3. Testing Procedure: Test each 1000 feet of line installed while trench is partially backfilled and joints are left exposed for examination for leaks. Do not conduct pressure tests until 48 hours after placement of concrete thrust blocks. After pipe has been partially backfilled, slowly let water into line. Vent to allow air in line to be released. Flush line as necessary for cleaning. Leave water in line for 24 hours prior to pressure test. Test at 1-1/2 times working pressure, calculated for low point of test section, or 150 psi, whichever is greater. Valve off pump and hold pressure in line for test. Test for two hours or as agreed to by Engineer. At end of test, operate pump until test pressure is again attained. Calibrate container of water for pump suction to determine amount of water to replace leakage.

4. Leakage Allowance: Leakage is quantity of water necessary to refill line at end of test period. No installation will be accepted until leakage is less than:

   **ALLOWABLE LEAKAGE PER 1000' OF PIPE IN GPH**

<table>
<thead>
<tr>
<th>Avg. Test Pressure psi</th>
<th>6</th>
<th>8</th>
<th>10</th>
<th>12</th>
<th>18</th>
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<tbody>
<tr>
<td>200</td>
<td>0.64</td>
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<td>1.06</td>
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<td>0.45</td>
<td>0.60</td>
<td>0.75</td>
<td>0.90</td>
<td>1.35</td>
</tr>
</tbody>
</table>

October 2016 Town of Grand Lake Water System Specifications 02713 -15
For pipe with 18' nominal lengths. To obtain recommended allowable leakage for pipe with 20' nominal lengths, multiply the leakage calculated from the table by 0.9. If pipeline under test contains sections of various diameters, allowable leakage will be sum of computed leakage for each size. Reduce allowable leakage proportionately for sections less than 1000 ft.

3.15 FLUSHING AND DISINFECTING

A. General: in accordance with AWWA C601. Acceptable chlorine disinfectants are calcium hypochlorite granules, sodium hypochlorite solutions, and calcium hypochlorite tablets.

B. Chlorine-Water Solution Method:

Chlorine Required to Produce 25 Mg/L Concentration in 100 feet of Pipe – by Diameter

<table>
<thead>
<tr>
<th>Pipe Diameter</th>
<th>100 Percent Chlorine Lb.</th>
<th>1 Percent Chlorine Solution Gal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>.013</td>
<td>.16</td>
</tr>
<tr>
<td>6</td>
<td>.030</td>
<td>.36</td>
</tr>
<tr>
<td>8</td>
<td>.054</td>
<td>.65</td>
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<td>10</td>
<td>.085</td>
<td>1.02</td>
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<td>12</td>
<td>.120</td>
<td>1.44</td>
</tr>
<tr>
<td>16</td>
<td>.217</td>
<td>2.60</td>
</tr>
</tbody>
</table>

Induce chlorine solution into pipe line at a continuous feed rate to attain a concentration of 25 Mg/L free chlorine.

C. Tablet Method: May not be used on solvent welded plastic pipe. May be used only when all foreign materials have been kept out of pipe. If ground water has entered pipe during installation and tablets have been installed, flush main and use chlorine-water solution method. Do not use if temperature is below 5 degrees C. Place tablets with non-toxic adhesive in each pipe length in top of pipe in accordance with following table:

Number of 5-g Hypochlorite Tablets Required for Dose of 25 mg/L*

<table>
<thead>
<tr>
<th>Pipe Diameter</th>
<th>Length of Pipe Section, ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13 or less</td>
</tr>
<tr>
<td></td>
<td>18</td>
</tr>
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<td></td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>40</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
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<td>6</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
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<tr>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
</tr>
</tbody>
</table>

October 2016
Town of Grand Lake
Water System Specifications
02713 -16
E105
D. Chlorination Test: Assure valves are closed on existing system to prevent chlorine solution flowing into existing system. Retain 25 mg/L chlorinated water in pipe line for minimum of 24 hours. During retention period operate all valves and hydrants to disinfect. At end of 24 hour period, chlorine in system to be no less than 10 mg/L throughout length tested. When section being tested meets 10 mg/L chlorine after 24 hours, flush main. Water samples taken shall show no coliform organisms.

*Based on 3.25g available chlorine per tablet, any portion of tablet rounded to next higher number.

If water in pipe does not meet the governing health agency requirements, repeat disinfection procedure, at Contractor's expense, until requirements are met. Furnish acceptance forms from governing agency to Engineer.

3.16 OPERATION OF VALVES

A. Contractor is responsible for operating any valves necessary to complete project. Contractor is required to provide Owner 24 hours notice prior to said operation.

3.17 CLEANUP AND RESTORATION

A. Restore all pavements, curbs, gutters, utilities, fences, irrigation ditches, yards, lawns, and other structures or surfaces to condition equal to or better than before work began, and to satisfaction of Engineer. Deposit all waste material in designated waste areas. Grade and shape disposal site. Complete topsoil and reseeding of site, if required. Where disposal sites are not designated, remove and dispose of all waste material off site.

END OF SECTION
Date: 07/22/2019

To: Mayor Peterson and Trustees

From: Nate Shull, Town Planner

RE: QUASI – JUDICIAL – Consideration to recommend granting exemption in the form of an appeal to Municipal Code section 10-1-6(B) – Water Service Lines – to 1) allow for two or more continuous units owned by the same person to be exempted from individual service connections and 2) accept a Plant Investment Fee payment for a 1 1/2 -inch meter for Phase I of the Project for property located at 15500 US HWY 34, Town of Grand Lake.

Attachments:

- Appeal Request Form
- Applicant Memo
- Site Plan and Data Calculations
- Dave Johnson’s Site Plan Edits
- Attorney Krob Memo
- Resolution 08 – 2005

Purpose
The Town has received an appeal request application from RTA Grand Lake Lodge, LLC for an exemption to individual water service line and payment requirements per Municipal Code 10-1-6(B). This requires Board of Trustees review

Background
May 5, 2019 – Grand Lake Planning Commission moved to deny an exemption to Municipal Code section 10-1-6(B) – Water Service Lines – to 1) allow for two or more continuous units owned by the same person to be exempted from individual service connections and 2) accept a Plant Investment Fee payment for a 1 1/2 -inch meter for Phase I

Municipal Code
Municipal Code section 10-1-2 [Definitions]

- **Meter**: the water meter; the remote readout; the wire connecting the remote readout and the water meter; and, all ancillary items and materials.

- **Plant Investment Fee**: the fee charged at the time of connection to the water system. The Plant Investment Fee is both a repayment for the Town’s previous investments in the water system and is used to finance the construction of water collection, transmission, storage, treatment, and distribution
Service Line: the corporation cock, water service line, curb stop, and all other materials, and items used to connect the water using unit to the main of the water system.

Water Using Unit: each house, building, mobile home, mobile home space, condominium, town house, single family dwelling unit, or any other structure physically connected to the water system.

Municipal Code section 10-1-6(B) [Water Service Lines]
(B) Separate Service Lines Required: Each water using unit shall have a separate ¾-inch (minimum) service line to the water system, a meter and a curb stop. No connection with the water system shall be made by extending the service line from one water using unit to another. When two or more water using units are contiguous and owned by the same person, the Town may authorize an exception.

Municipal Code section 10-1-7 [Meters]
(A) Meters Required: Each and every water using unit connected to the water system shall be required to have a meter of a type, size and configuration designated by the Town. All meters will be furnished to the customer by the Town.

Municipal Code section 10-1-8 [Fees, Rates, Charges, and Penalties]
(A) Water Plant Investment Fee: The customer shall pay a water plant investment fee in the amount established by resolution adopted by the Board of Trustees
(B) Connection Charges: An applicant for water service from the Town hereby agrees to pay the actual cost of connection which shall include, but not be limited to, meter readout, corporation cock and other necessary appurtenances

Staff Comments
Staff has the following comments regarding the applicant’s appeal request.

The applicant has submitted all the required information with the application, including a deposit check, narrative explanation of the specific exemption requested, and a site plan w/ data sheets showing proposed units, water service line dimensions, and flow rates by fixture.

During the 05/15/19 Planning Commission meeting, Planner Shull provided a staff summary of the request to the Commission. Subsequently the applicant’s representative Mr. Chris Perdue of Strategic Site Designs presented his appeal proposal to the Commission. The Commissioners then held a discussion with Mr. Perdue and provided comments on the matter.

Much of the discussion involved the interpretation of hotel-cabins as “water using units”, Attorney Krob and Water Superintendent Johnson’s responses to the applicant’s memo, and the ability to negotiate finances of the appeal. In conclusion, the Planning Commission moved to
recommend denying the appeal request, and directed the applicant to amend his request to better satisfy the Town’s needs in proposing a workable solution.

It is staff’s opinion that while the motion was to recommend denial of the appeal request, that such denial should not be interpreted literally as disagreeing with the interpretation of the Municipal Code requirement 10-1-6(B) – Water Service Lines – as it applies to the Lodge hotel-cabins, but rather an unwillingness to agree to an exemption that involves financial implications. In other words, the Commission was forwarding the matter onto the Board of Trustees to ultimately decide on whether the applicant’s proposal had validity from a financial standpoint.

Since Water Superintendent Dave Johnson expressed his satisfaction with the applicant’s latest system design as proposed, Staff is more comfortable with approving the request as presented.

**Staff Recommendation**
As this is a major financial decision, Staff does not have a recommendation but will defer to the Board Trustees to make a decision.

**Board Discussion**
The Board should consider staff’s comments and discuss the matter amongst themselves to make a decision.

**Board Action**
The Commission has the following options…
1. Grant the appeal request as presented by applicant; OR
2. Grant the appeal request with additional conditions __________; OR
3. Deny the appeal request
Town of Grand Lake
Planning Department
• P.O. Box 99 • 1026 Park Avenue • Grand Lake, CO 80447
• Phone: 970-627-3435 • Fax: 970-627-9290
gpplanning@townofgrandlake.com • www.townofgrandlake.com

APPEAL REQUEST APPLICATION

PROPERTY LOCATION:
Street Address: 15500 US-34, Grand Lake, CO 80447 (County Parcel 107531400005)
Legal Description: Lot n/a Block n/a Subdivision n/a

PROPERTY OWNER INFORMATION:
Name: RTA Grand Lake Lodge II, LLC Email: FCorso@RTACQ.com
Mailing Address: 2082 Michelson Drive, Suite 400 Phone: (949) 399-2500
City: Irvine State: CA Zip: 92612 Fax:

APPLICANT INFORMATION:
Is the Applicant the Property Owner? [X] YES [ ] NO
Name: Email:
Mailing Address: Phone:
City: State: Zip: Fax:

APPEAL REQUEST (Brief Description):
The applicant requests the Town grant an exception in accordance with Paragraph 10-1-6 (B) of the municipal code to allow for payment of plant investment fees based upon the required meter size for each phase of development in lieu of providing individual service lines for each unit.

REQUERED INFORMATION CHECKLIST:
[X] Application Deposit (See Fee and Deposit schedule for amount)
[X] Agreement for Services Form
[X] Site Plan (showing dimensions to existing and proposed features, parking, access points, utilities, drainage features, and property lines)
[X] Additional Information (If applicable, Staff may require other helpful info for review.)

AFFIDAVIT:
BY MY SIGNATURE, I attest that the information contained or attached to this application is true and correct to the best of my knowledge. I further understand that submission of false or misleading information shall be sufficient cause for the Variance Request to be revoked immediately without notice or hearing.

Print Name: Christopher L. Perdue (Owners Representative) for Francis Corso
Signature: ___________________________ Date: 5/07/2019

**Incomplete applications will not be reviewed.**

STAFF USE ONLY
Application Received By: Nate Swell Date & Time: 05/02/19
File Name: Water Meter/ Tap Appeal Deposit: [X] YES [ ] NO Amount: $100
Agreement for Services Form Signed? [X] YES [ ] NO

E110
RECEIPT  DATE 06/10/19  No. 123031
RECEIVED FROM Strategic Site Design
One Hundred Dollars

FOR RENT

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FOR

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<th>CREDIT CARD</th>
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<td></td>
<td></td>
<td>FROM 1019</td>
<td>TO</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>BY N.S.</td>
</tr>
</tbody>
</table>

3-11
July 18, 2019

Town of Grand Lake – Water Department
1026 Park Avenue
Grand Lake, Colorado 80447
Attention: Nate Shull and Dave Johnson

Re: Grand Lake Lodge – Phase I Construction
Amended Plant Investment Fee Proposal

Dear Nate,

I am drafting this letter as a follow up to my May 6th letter to the Town requesting that an exception to the Town’s policy requiring each water using unit be served by an individual tap fee.

Since drafting the May 6th letter, my firm has been working directly with Dave Johnson to finalize a design approach that sufficiently delivers the required water supply at acceptable pressures to each unit.

At this time, we’ve tentatively agreed that Phase I of the development consisting of 29 cabins could easily be served by a 1-1/2” with a 2” Meter being more efficient based on fixture calculations performed utilizing the AWWA Manual 22 Methodology and the Uniform Plumbing Code. The Uniform Plumbing Code is the basis of calculation listed in Resolution 8-2005.

Having established that a 2-inch meter is sufficient to address flow demands. We then shifted our focus to the service line which is the primary determinant for Plant Investment Fees.

Based on Phase I’s elevation in relation to the water storage tank, the available pressure is extremely low. In order to provide adequate pressure throughout Phase I, the developer will need to install a “constant pressure booster station” to maintain pressures sufficient to operate modern fixtures (i.e. shower heads, faucets, etc.). In order to reduce the head-loss in the pipe network which thereby reduces the size of the Booster Station, we’re proposing installation of a 3-inch service line. A 2.5-inch service line is all that is required; however, it’s an extremely rare size and not readily available in the area. The booster station will be privately owned and maintained by the lodge as well as the 3-inch service line within Phase I.

As such, given the capital expenditure on the booster station which is anticipated to cost $15,000.00 plus, we request that the Town approve an amended Plant Investment Fee of $63,000.00 or the interpolated value of a 2.5-inch service line ($78,000.00) based on Resolution 8-2005 less the investment in the Constant Pressure Booster Station.

I trust that this letter contains sufficient information justify our request. Should additional information be required, please don’t hesitate to let me know.

Sincerely,

Strategic Site Designs, LLC

Christopher L. Perdue, P.E., M.B.A.
Owner
### Grand Lake Lodge

**Phase I Meter Sizing Worksheet**

#### Cabins (One and Two Bedroom Units have One Bathroom)

<table>
<thead>
<tr>
<th>Fixture Type</th>
<th>Fixture Value</th>
<th>Number</th>
<th>Total Fixture Value</th>
</tr>
</thead>
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<tr>
<td>Kitchen Sink</td>
<td>2.2</td>
<td>1</td>
<td>2.2</td>
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<tr>
<td>Lavatory</td>
<td>1.5</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Shower</td>
<td>2.5</td>
<td>1</td>
<td>2.5</td>
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<tr>
<td>Toilet (Tank)</td>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Dishwasher</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Washing Machine</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Total Fixture Value/Unit**  10.2
**Total Units**  29
**Total Fixture Value/Phase I**  295.8

**Total Fixture Count for All Units**  295.8

**Demand per AWWA M22 - Figure 4-2 (Apartments/Motels)**  37

#### Meter Size per AWWA M22

1-1/2"

**Tap Fee Per Resolution 8-2005 (1-1/2" Meter)**  $26,000.00

#### Alternative Tap fee per Unit

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Individual Tap</td>
<td>$6,500.00</td>
</tr>
<tr>
<td>Total Units</td>
<td>29</td>
</tr>
<tr>
<td>Total Tap Fee (Per unit Basis)</td>
<td>$188,500.00</td>
</tr>
</tbody>
</table>
Figure 4-2  Water-flow demand per fixture value—enlarged scale from Figure 4-1

Figure 4-3  Water-flow demand per fixture value
<table>
<thead>
<tr>
<th>Residual Pressure at Fixture Outlet, psi</th>
<th>Baseline Flow Rate at 60 psi</th>
<th>Actual Flow Rate at Residual Pressure (Fixture Value)</th>
<th>Pressure Adjustment Factor</th>
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<tr>
<td>15</td>
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<td>1.0</td>
<td>0.56</td>
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<tr>
<td>80</td>
<td>1.8</td>
<td>1.8</td>
<td>1.00</td>
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Table 6-1  AWWA meter standards

<table>
<thead>
<tr>
<th>Meter</th>
<th>Minimum Flow Rate, gpm</th>
<th>Low-Normal Flow Rate, gpm</th>
<th>Change-over Range (Compound Meters)</th>
<th>High-Normal Flow Rate, gpm</th>
<th>Maximum Flow Rate, gpm</th>
<th>Head Loss at Maximum Flow, psi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive displacement</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>½ in.</td>
<td>0.25</td>
<td>1</td>
<td>N/A</td>
<td>7.5</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>¾ in.</td>
<td>0.25</td>
<td>1</td>
<td>N/A</td>
<td>10</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>1 in.</td>
<td>0.50</td>
<td>2</td>
<td>15</td>
<td>25</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>1½ in.</td>
<td>0.75</td>
<td>3</td>
<td>25</td>
<td>50</td>
<td>50</td>
<td>15</td>
</tr>
<tr>
<td>2 in.</td>
<td>1.50</td>
<td>5</td>
<td></td>
<td>100</td>
<td>160</td>
<td>15</td>
</tr>
<tr>
<td>Turbine class II</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1½ in.</td>
<td>0.25</td>
<td>1</td>
<td>N/A</td>
<td>10</td>
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<td>15</td>
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<tr>
<td>2 in.</td>
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<td>2</td>
<td>15</td>
<td>25</td>
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<tr>
<td>3 in.</td>
<td>0.75</td>
<td>3</td>
<td>25</td>
<td>40</td>
<td>50</td>
<td>15</td>
</tr>
<tr>
<td>4 in.</td>
<td>1.50</td>
<td>5</td>
<td>45</td>
<td>65</td>
<td>70</td>
<td>15</td>
</tr>
<tr>
<td>6 in.</td>
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<td>80</td>
<td>100</td>
<td>120</td>
<td>7</td>
</tr>
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<td>8 in.</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>10 in.</td>
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<td></td>
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<tr>
<td>Compound class II</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 in.</td>
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<td>1</td>
<td>13</td>
<td>80</td>
<td>160</td>
<td>15</td>
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<td>200</td>
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<tr>
<td>6 in.</td>
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<td>5</td>
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<td>65</td>
<td>1,350</td>
<td>15</td>
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<tr>
<td>8 in.</td>
<td>2.00</td>
<td>10</td>
<td></td>
<td>90</td>
<td>1,600</td>
<td>15</td>
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<tr>
<td>Fire service, type II—compound</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3 in.</td>
<td>* see note</td>
<td>2</td>
<td>30</td>
<td>250</td>
<td>350</td>
<td>12</td>
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<tr>
<td>4 in.</td>
<td>4</td>
<td>2</td>
<td>150</td>
<td>400</td>
<td>700</td>
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<tr>
<td>6 in.</td>
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<td>3</td>
<td>90</td>
<td>250</td>
<td>1,000</td>
<td>12</td>
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<tr>
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<td>1,600</td>
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<tr>
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<td>5</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Source: Data are drawn from AWWA Standards C700, C701, C702, C703, C704, C708, C710, C712, C713, and C714, latest revision.

N/A = not applicable.

* Minimum flow rate is per the applicable AWWA standard for the bypass meter employed.

(Table continued on next page.)
<table>
<thead>
<tr>
<th>Meter</th>
<th>Minimum Flow Rate, gpm</th>
<th>Low-Normal Flow Rate, gpm</th>
<th>Change-over Range (Compound Meters)</th>
<th>High-Normal Flow Rate, gpm</th>
<th>Maximum Flow Rate, gpm</th>
<th>Head Loss at Maximum Flow, psi</th>
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<tbody>
<tr>
<td>Fire service, type III—turbine</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3 in.</td>
<td>4</td>
<td>5</td>
<td>N/A</td>
<td>250</td>
<td>350</td>
<td>11</td>
</tr>
<tr>
<td>4 in.</td>
<td>10</td>
<td>15</td>
<td></td>
<td>400</td>
<td>700</td>
<td>11</td>
</tr>
<tr>
<td>6 in.</td>
<td>20</td>
<td>30</td>
<td></td>
<td>900</td>
<td>1,600</td>
<td>11</td>
</tr>
<tr>
<td>8 in.</td>
<td>30</td>
<td>35</td>
<td></td>
<td>1,600</td>
<td>2,800</td>
<td>11</td>
</tr>
<tr>
<td>10 in.</td>
<td>35</td>
<td>55</td>
<td></td>
<td>2,500</td>
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<td>11</td>
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<tr>
<td>2 in.</td>
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<tr>
<td>3 in.</td>
<td></td>
<td></td>
<td>80</td>
<td>250</td>
<td>300</td>
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</tr>
<tr>
<td>4 in.</td>
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<td>500</td>
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<td>6 in.</td>
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<td></td>
<td>160</td>
<td>1,200</td>
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<td>8 in.</td>
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<td></td>
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<td>1,500</td>
<td>1,800</td>
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</tr>
<tr>
<td>10 in.</td>
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<td></td>
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<td>2,000</td>
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<tr>
<td>12 in.</td>
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<td>2,800</td>
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<tr>
<td>14 in.</td>
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<td>350</td>
<td>3,750</td>
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</tr>
<tr>
<td>16 in.</td>
<td></td>
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<td>450</td>
<td>4,750</td>
<td>5,700</td>
<td>0.5</td>
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<tr>
<td>18 in.</td>
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<td></td>
<td>550</td>
<td>5,625</td>
<td>6,750</td>
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<tr>
<td>20 in.</td>
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<td></td>
<td>650</td>
<td>6,875</td>
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<tr>
<td>24 in.</td>
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<td></td>
<td>1,000</td>
<td>10,000</td>
<td>12,000</td>
<td>0.25</td>
</tr>
<tr>
<td>30 in.</td>
<td></td>
<td></td>
<td>1,600</td>
<td>15,000</td>
<td>18,000</td>
<td>0.25</td>
</tr>
<tr>
<td>36 in.</td>
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<td>2,400</td>
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<tr>
<td>42 in.</td>
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<td></td>
<td>2,800</td>
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</tr>
<tr>
<td>48 in.</td>
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<td>3,500</td>
<td>35,000</td>
<td>50,000</td>
<td>0.1</td>
</tr>
<tr>
<td>54 in.</td>
<td></td>
<td></td>
<td>5,000</td>
<td>45,000</td>
<td>55,000</td>
<td>0.1</td>
</tr>
<tr>
<td>60 in.</td>
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<td></td>
<td>6,000</td>
<td>60,000</td>
<td>80,000</td>
<td>0.1</td>
</tr>
<tr>
<td>66 in.</td>
<td></td>
<td></td>
<td>7,500</td>
<td>75,000</td>
<td>95,000</td>
<td>0.1</td>
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<tr>
<td>72 in.</td>
<td></td>
<td></td>
<td>9,000</td>
<td>90,000</td>
<td>115,000</td>
<td>0.1</td>
</tr>
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<td>Fluidic oscillator</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>½ in.</td>
<td>0.25</td>
<td>1</td>
<td>N/A</td>
<td>7.5</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>¾ in.</td>
<td>0.25</td>
<td>1</td>
<td></td>
<td>10</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>⅜ in.</td>
<td>0.50</td>
<td>2</td>
<td></td>
<td>15</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>1 in.</td>
<td>0.75</td>
<td>3</td>
<td></td>
<td>25</td>
<td>50</td>
<td>15</td>
</tr>
<tr>
<td>1½ in.</td>
<td>1.50</td>
<td>5</td>
<td></td>
<td>50</td>
<td>100</td>
<td>15</td>
</tr>
<tr>
<td>2 in.</td>
<td>2.00</td>
<td>8</td>
<td></td>
<td>80</td>
<td>160</td>
<td>15</td>
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<tr>
<td>Singlejet</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>¾ in.</td>
<td>0.25</td>
<td>1</td>
<td>N/A</td>
<td>10</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>¼ in.</td>
<td>0.50</td>
<td>2</td>
<td></td>
<td>15</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>1 in.</td>
<td>0.75</td>
<td>3</td>
<td></td>
<td>20</td>
<td>40</td>
<td>15</td>
</tr>
<tr>
<td>1½ in.</td>
<td>0.50</td>
<td>1.5</td>
<td>N/A</td>
<td>50</td>
<td>100</td>
<td>15</td>
</tr>
</tbody>
</table>

Source: Data are drawn from AWWA Standards C700, C701, C702, C703, C704, C708, C710, C712, C713, and C714, latest revision.  
N/A = not applicable.  
*Minimum flow rate is per the applicable AWWA standard for the bypass meter employed.  
(Table continued on next page.)

AWWA Manual M22
MEMORANDUM

To: Nate Shull, Town Planner

From: Scotty P. Krob, Town Attorney

Date: May 9, 2019

Re: Grand Lake Lodge request for water tap fee exemption

It is my understanding that the Grand Lake Lodge is seeking an exemption of the water tap fees associated with its employee housing. The background as I understand it, and the relevant Town code provisions are as follows:

Background and Code provisions:

The structures involved are 29 units within the Employee Housing Planning Area which were approved by the Town as detached hotel units. The units are on a contiguous single parcel of property and all 29 units will be owned by a single owner, not sold to individual unit owners.

The Town Code provides, in relevant part, that each house, building…condominium, single family dwelling unit, or any other structure physically connected to the water system is a Water Using Unit. (Section 10-1-2). It also provides that each Water Using Unit shall have a separate 3/4 inch (minimum) service line. (Section 10-1-6). Finally, the Code provides that when two or more water using units are contiguous and owned by the same person, the Town may authorize an exception. (Section 10-1-6).

With these facts and code provisions in mind, it is my understanding that the Grand Lake Lodge developer is requesting that rather than purchase 29 individual ¾ inch water taps, that it be permitted to purchase a single 1 ½ water tap.
Analysis

The presumption under the Town Code is that a ¾ inch tap fee is due for each of the 29 water using units. The Town, presumably the Board of Trustees, can grant an exemption. The burden is on the developer, as the party seeking an exemption, to show that one is warranted in these specific circumstances. This is in large part a determination that should be made in reliance on the Town’s water operator and its engineer. Water tap fees are intended to pay primarily for the piece of the capacity of the Town’s water system, including but not limited to its treatment plant and distribution system, that a water using unit will use, usually based on peak demand. Again this is primarily a system operator/engineer, not a legal determination. However, I have a couple of observations. The developer’s engineer used a fixture count methodology. That methodology is used in some towns but that is not the mechanism that is contemplated by the Grand Lake code and I do not believe it is the methodology that has been used in the past.

Whether it is appropriate in this instance is again, up to the engineer/water operator. Also, I note that the developer’s engineer concluded that the demand for each individual unit was 3 gpm, but recommends only 37 gpm for the 29 units. Since it is a maximum demand that is typically used, it would seem that the figure should be 3×29 = 87 gpm. But again, I will defer to the water operator/engineer.

My conclusion is that the Grand Lake Town Board of Trustees may, but is not obligated to grant the Grand Lake Lodge developer an exemption with regard to water tap fees. Whether an exemption is appropriate in this instance and the amount of that exemption (or the size of tap fee that should be paid) should be determined by the Board after receiving input from the Town’s water operator and engineer.

If the Board of Trustees ultimately determines that an exemption is appropriate and should be granted, I suggest that it do so by resolution that sets forth why an exception should be made and that the exception should be subject to conditions, including (1) that the property must remain with all 29 units under single ownership, (2) if the property is ever subdivided to make each unit a single lot or some similar arrangement, then the tap fees associated with a ¾” tap in effect at that time should be paid, and (3) none of the 29 individual units or an interest in them should be allowed to be sold unless and until a ¾” tap fee at the rates then in effect, is paid in connection with that individual unit.

It may also be beneficial to the Board of Trustees to know the amount of fees for 29 ¾” taps and the amount of the tap fee for a 1 ½ inch tap.
TOWN OF GRAND LAKE

RESOLUTION NO. 8-2005

A RESOLUTION AMENDING WATER PLANT INVESTMENT (TAP) FEES FOR THE TOWN OF GRAND LAKE WATER ENTERPRISE FUND

WHEREAS, UNDER THE PROVISIONS OF Ordinance No. 1-1988, the Board of Trustees of the Town of Grand Lake is empowered to establish rates, fees, charges, and penalties for the Water Department, now know as the Water Enterprise Fund; and

WHEREAS, The Board of Trustees recognized the need to accumulate sufficient funds to maintain and improve the Town’s water system for the benefit of future water system users; and,

WHEREAS, the Board of Trustees and Water Enterprise Fund personnel have implemented and identified additional capital improvement projects to benefit future water system users; and,

WHEREAS, the Board of Trustees has reviewed the capital needs of the Water Enterprise fund; and,

WHEREAS, by this Resolution, the Board of Trustees hereby finds, determines and declares the following rates, fees, and charges to be appropriate and reasonable in light of the operational and capital needs of the Water Enterprise Fund and all other relevant considerations,

NOW THEREFORE BE IT RESOLVED BY THE BOARD OF TRUSTEES OF THE TOWN OF GRAND LAKE, COLORADO THAT THE FOLLOWING FEES, RATES AND CHARGES ARE HEREBY ADOPTED:

1) Plant Investment Fees

The plant investment fees hereby established have been based, in part, on the flow characteristics of the service line diameter size being connected to the meter of the water using unit. All service lines must be a minimum of three-quarter inch in diameter. Service line diameter size shall be determined by the Grand County Building Official or his designee in accordance with the requirements of the Uniform Plumbing Code as currently in effect in the Town of Grand Lake.

<table>
<thead>
<tr>
<th>Service Line Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three-quarter inch (3/4&quot;) service line</td>
<td>$6,500.00</td>
</tr>
<tr>
<td>One inch (1&quot;) service line</td>
<td>$13,000.00</td>
</tr>
<tr>
<td>One and one-half inch (1-1/2&quot;) service line</td>
<td>$26,000.00</td>
</tr>
<tr>
<td>Two inch (2&quot;) service line</td>
<td>$52,000.00</td>
</tr>
<tr>
<td>Three inch (3&quot;) service line</td>
<td>$104,000.00</td>
</tr>
<tr>
<td>Four inch (4&quot;) service line</td>
<td>$208,000.00</td>
</tr>
</tbody>
</table>
2) Water Usage Fees

Rates charged shall be based on the quantity of water used per quarter, established by Resolution 9-2002, enacted December 9, 2002, shall remain in effect unchanged by this resolution.

The charges for temporary and bulk purchases of water, established by Resolution 13-1994, enacted December 12, 1994, shall remain in effect unchanged by this resolution.

3) Service Charges

The service charges by Resolution 13-1994, enacted December 12, 1994, shall remain in effect unchanged by this resolution.

4) Late Payment Charges

The late payment charges by Resolution 13-1994, enacted December 12, 1994, shall remain in effect unchanged by this resolution.

5) Discontinuation of Water Service for Failure to Pay

Procedures for the discontinuation of water service due to failure to pay established by Resolution 4-1997, enacted July 14, 1997, shall remain in effect unchanged by this resolution.

6) Effective Date

The fees, rates, and charges provided for and established by this Resolution shall be in effect from November 1, 2005, until duly altered by the Board of Trustees or other authorized entity.


(S SEAL)

VOTES: 7
Votes Opposed: 0
Absent: 0
Abstained: 0

ATTEST:

Ronda Kolinski
Town Clerk

TOWN OF GRAND LAKE

BY: Judy M. Burke,
Mayor
# Grand Lake Lodge - Phase I Construction Drawings
## Development Improvement Agreement - Exhibit D

### PHASE I IMPROVEMENTS

<table>
<thead>
<tr>
<th>Sheet</th>
<th>Description</th>
<th>Quantity</th>
<th>Measure</th>
<th>Unit Price</th>
<th>Total Price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Water Infrastructure</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C6.4</strong></td>
<td>12&quot; DIP CL 52 Watermain</td>
<td>960</td>
<td>LF</td>
<td>$94.50</td>
<td>$90,720.00</td>
</tr>
<tr>
<td><strong>C6.4</strong></td>
<td>12&quot; Gate Valve</td>
<td>6</td>
<td>Each</td>
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<td>$21,802.50</td>
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<td>12&quot;x8&quot; Tee</td>
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<td>Each</td>
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<td>$1,185.00</td>
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<tr>
<td><strong>C6.0</strong></td>
<td>8&quot; DIP CL 52 Watermain</td>
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<td>$119,160.00</td>
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<tr>
<td><strong>C6.0</strong></td>
<td>8&quot; Gate Valve</td>
<td>16</td>
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<td>$46,140.00</td>
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<tr>
<td><strong>C6.0</strong></td>
<td>Fire Hydrant Assembly</td>
<td>6</td>
<td>Each</td>
<td>$7,833.00</td>
<td>$46,998.00</td>
</tr>
<tr>
<td><strong>C6.0</strong></td>
<td>3/4&quot; Type K Copper Service Line</td>
<td>925</td>
<td>LF</td>
<td>$45.00</td>
<td>$41,625.00</td>
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<td><strong>C6.0/6.4</strong></td>
<td>Connection to Existing System</td>
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<td>Each</td>
<td>$2,625.00</td>
<td>$13,125.00</td>
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<td><strong>C6.0</strong></td>
<td>Air Release Valve</td>
<td>2</td>
<td>Each</td>
<td>$7,125.00</td>
<td>$14,250.00</td>
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<tr>
<td><strong>C6.0/C6.4</strong></td>
<td>Elbow Fittings w/ Thrust Blocks</td>
<td>45</td>
<td>Each</td>
<td>$712.50</td>
<td>$32,082.50</td>
</tr>
</tbody>
</table>

**Subtotal Water Infrastructure (Phase I)** 427,068.00

|        | **Storm Drainage Infrastructure**    |          |         |            |             |
|        |                                       |          |         |            |             |
| **C5.2/7.0/7.1** | 18" RCP Pipe                | 285      | LF      | $58.50     | $16,672.50  |
| **C7.2** | 30" RCP Pipe                        | 53       | LF      | $73.50     | $3,895.50   |
| **C5.2** | 18" Concrete FES                    | 3        | Each    | $1,125.00  | $3,375.00   |
| **C7.2** | 30" Concrete FES                    | 1        | Each    | $1,687.50  | $1,687.50   |
| **C5.2/7.0/7.1** | CDOT Type C Inlet             | 3        | Each    | $2,625.00  | $7,875.00   |
| **C7.0** | Pond A Outlet Structure             | 1        | Each    | $3,375.00  | $3,375.00   |
| **C7.1** | Pond B Outlet Structure             | 1        | Each    | $3,375.00  | $3,375.00   |
| **C7.0/7.1** | Concrete Trickle Channel           | 235      | LF      | $78.75     | $18,508.25  |
| **C7.2** | Pond A Headwall (South of Old Ton. Ridge) | 1 | LS | $10,125.00 | $10,125.00 |
| **C7.2** | Pond B Headwall (South of Old Ton. Ridge) | 1 | LS | $7,387.50  | $7,387.50  |
| **C5.2** | Roadway B Headwall (SE of Road A/B Intersection) | 1 | LS | $7,387.50  | $7,387.50  |
| **C7.2** | Concrete Cutoff Wall (Pond A and Pond B) | 117 | LF | $180.00    | $21,060.00 |
| **C7.0** | Pond A Access (CDOT Class 6 Road Base) | 560 | SY | $22.50     | $12,600.00 |
| **C7.0/7.1** | UDFCD Type L Rip Rap              | 180      | SY      | $37.50     | $6,750.00   |
| **C5.2/7.0/7.1** | Type M Rip Rap (Outlet Protection) | 25      | SY      | $33.75     | $843.75    |

**Subtotal Storm Infrastructure (Phase I)** 124,915.50

**Grand Total Estimate (Phase I)** 551,983.50

**Required Surety Amount (115% of Estimate)** 634,781.03
**PHASE II IMPROVEMENTS**

<table>
<thead>
<tr>
<th>Sheet</th>
<th>Description</th>
<th>Quantity</th>
<th>Measure</th>
<th>Unit Price</th>
<th>Total Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP - 4 of 4</td>
<td>8&quot; DIP CL 52 Watermain</td>
<td>570</td>
<td>LF</td>
<td>$72.00</td>
<td>$41,040.00</td>
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<tr>
<td>SP - 4 of 4</td>
<td>8&quot; Gate Valve</td>
<td>2</td>
<td>Each</td>
<td>$2,883.75</td>
<td>$5,767.50</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>2&quot; ASTM CL 315 PVC Watermain</td>
<td>310</td>
<td>LF</td>
<td>$33.00</td>
<td>$10,230.00</td>
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<tr>
<td>SP - 4 of 4</td>
<td>Fire Hydrant Assembly</td>
<td>2</td>
<td>Each</td>
<td>$7,833.00</td>
<td>$15,666.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>3/4&quot; Type K Copper Service Line</td>
<td>540</td>
<td>LF</td>
<td>$45.00</td>
<td>$24,300.00</td>
</tr>
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<td>SP - 4 of 4</td>
<td>Connection to Existing System</td>
<td>1</td>
<td>Each</td>
<td>$2,625.00</td>
<td>$2,625.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Blowoff Assembly</td>
<td>1</td>
<td>Each</td>
<td>$3,000.00</td>
<td>$3,000.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Elbow Fittings w/ Thrust Blocks</td>
<td>7</td>
<td>Each</td>
<td>$712.50</td>
<td>$4,987.50</td>
</tr>
</tbody>
</table>

**Subtotal Water Infrastructure (Phase II)** $107,616.00

<table>
<thead>
<tr>
<th>Storm Drainage Infrastructure</th>
<th>Quantity</th>
<th>Measure</th>
<th>Unit Price</th>
<th>Total Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP - 4 of 4</td>
<td>18&quot; RCP Pipe</td>
<td>180</td>
<td>LF</td>
<td>$58.50</td>
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<td>SP - 4 of 4</td>
<td>30&quot; RCP Pipe</td>
<td>290</td>
<td>LF</td>
<td>$73.50</td>
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<td>18&quot; Concrete FES</td>
<td>2</td>
<td>Each</td>
<td>$1,125.00</td>
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<tr>
<td>SP - 4 of 4</td>
<td>4' Dia Concrete Manhole</td>
<td>2</td>
<td>Each</td>
<td>$2,437.50</td>
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<tr>
<td>SP - 4 of 4</td>
<td>CDOT Type C Inlet</td>
<td>2</td>
<td>Each</td>
<td>$2,625.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Pond A Outlet Structure</td>
<td>1</td>
<td>Each</td>
<td>$21,000.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Concrete Trickle Channel</td>
<td>160</td>
<td>LF</td>
<td>$78.75</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Concrete Energy Dissipators</td>
<td>3</td>
<td>LS</td>
<td>$3,150.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Concrete Cutoff Wall (Pond A and Pond B)</td>
<td>100</td>
<td>LF</td>
<td>$180.00</td>
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<tr>
<td>SP - 4 of 4</td>
<td>Pond A Access (CDOT Class 6 Road Base)</td>
<td>260</td>
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<td>$22.50</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Type M Rip Rap (Outlet Protection)</td>
<td>151</td>
<td>SY</td>
<td>$33.75</td>
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</table>

**Subtotal Storm Infrastructure (Phase II)** $116,216.25

**Grand Total Estimate (Phase II)** $223,832.25

**Required Surety Amount (115% of Estimate)** $257,407.09
### PHASE III IMPROVEMENTS

#### Development Improvement Agreement - Exhibit D

<table>
<thead>
<tr>
<th>Sheet</th>
<th>Description</th>
<th>Quantity</th>
<th>Measure</th>
<th>Unit Price</th>
<th>Total Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP - 4 of 4</td>
<td>8&quot; DIP CL 52 Watermain</td>
<td>402</td>
<td>LF</td>
<td>$72.00</td>
<td>$28,944.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>8&quot; Gate Valve</td>
<td>1</td>
<td>Each</td>
<td>$2,883.75</td>
<td>$2,883.75</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Fire Hydrant Assembly</td>
<td>1</td>
<td>Each</td>
<td>$7,833.00</td>
<td>$7,833.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>3/4&quot; Type K Copper Service Line</td>
<td>360</td>
<td>LF</td>
<td>$45.00</td>
<td>$16,200.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Connection to Existing System</td>
<td>1</td>
<td>Each</td>
<td>$2,625.00</td>
<td>$2,625.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Elbow Fittings w/ Thrust Blocks</td>
<td>2</td>
<td>Each</td>
<td>$712.50</td>
<td>$1,425.00</td>
</tr>
</tbody>
</table>

**Subtotal Water Infrastructure (Phase III)** $59,910.75

#### Storm Drainage Infrastructure

<table>
<thead>
<tr>
<th>Sheet</th>
<th>Description</th>
<th>Quantity</th>
<th>Measure</th>
<th>Unit Price</th>
<th>Total Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP - 4 of 4</td>
<td>18&quot; RCP Pipe</td>
<td>60</td>
<td>LF</td>
<td>$58.50</td>
<td>$3,510.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>18&quot; Concrete FES</td>
<td>2</td>
<td>Each</td>
<td>$1,125.00</td>
<td>$2,250.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>CDOT Type C Inlet</td>
<td>1</td>
<td>Each</td>
<td>$2,625.00</td>
<td>$2,625.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Type M Rip Rap (Outlet Protection)</td>
<td>3</td>
<td>SY</td>
<td>$33.75</td>
<td>$101.25</td>
</tr>
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</table>

**Subtotal Storm Infrastructure (Phase III)** $8,486.25

**Grand Total Estimate (Phase III)** $68,397.00

**Required Surety Amount (115% of Estimate)** $78,656.55
### PHASE IV IMPROVEMENTS

**Water Infrastructure**

<table>
<thead>
<tr>
<th>Sheet</th>
<th>Description</th>
<th>Quantity</th>
<th>Measure</th>
<th>Unit Price</th>
<th>Total Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP - 4 of 4</td>
<td>8&quot; DIP CL 52 Watermain</td>
<td>1,621</td>
<td>LF</td>
<td>$72.00</td>
<td>$116,712.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>8&quot; Gate Valve</td>
<td>4</td>
<td>Each</td>
<td>$2,883.75</td>
<td>$11,535.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Fire Hydrant Assembly</td>
<td>2</td>
<td>Each</td>
<td>$7,833.00</td>
<td>$15,666.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>3/4&quot; Type K Copper Service Line</td>
<td>750</td>
<td>LF</td>
<td>$45.00</td>
<td>$33,750.00</td>
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<tr>
<td>SP - 4 of 4</td>
<td>Connection to Existing System</td>
<td>1</td>
<td>Each</td>
<td>$2,625.00</td>
<td>$2,625.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Air Release Valve</td>
<td>1</td>
<td>Each</td>
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<td>$3,000.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Elbow Fittings w/ Thrust Blocks</td>
<td>15</td>
<td>Each</td>
<td>$712.50</td>
<td>$10,687.50</td>
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</tbody>
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Subtotal Water Infrastructure (Phase IV) $193,975.50

**Storm Drainage Infrastructure**

<table>
<thead>
<tr>
<th>Sheet</th>
<th>Description</th>
<th>Quantity</th>
<th>Measure</th>
<th>Unit Price</th>
<th>Total Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP - 4 of 4</td>
<td>18&quot; RCP Pipe</td>
<td>490</td>
<td>LF</td>
<td>$58.50</td>
<td>$28,865.00</td>
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<tr>
<td>SP - 4 of 4</td>
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<tr>
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<td>18&quot; Concrete FES</td>
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<td>Each</td>
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<tr>
<td>SP - 4 of 4</td>
<td>4&quot; Dia Concrete Manhole</td>
<td>1</td>
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<td>$2,437.50</td>
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<tr>
<td>SP - 4 of 4</td>
<td>CDOT Type C Inlet</td>
<td>1</td>
<td>Each</td>
<td>$2,625.00</td>
<td>$2,625.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Pond B Outlet Structure</td>
<td>1</td>
<td>Each</td>
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<td>$10,500.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Concrete Trickle Channel</td>
<td>100</td>
<td>LF</td>
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<td>$7,875.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Concrete Energy Dissipators</td>
<td>2</td>
<td>LS</td>
<td>$3,150.00</td>
<td>$6,300.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Concrete Cutoff Wall (Pond A and Pond B)</td>
<td>40</td>
<td>LF</td>
<td>$180.00</td>
<td>$7,200.00</td>
</tr>
<tr>
<td>SP - 4 of 4</td>
<td>Type M Rip Rap (Outlet Protection)</td>
<td>25</td>
<td>SY</td>
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<td>$843.75</td>
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Subtotal Storm Infrastructure (Phase IV) $81,971.25

Grand Total Estimate (Phase IV) $275,948.75

Required Surety Amount (115% of Estimate) $317,338.76