

# TABLE OF CONTENTS

## **I GENERAL REQUIREMENTS**

- 0. GENERAL PROVISIONS
- 1. PURPOSE
- 2. APPLICABILITY
- 3. INTERPRETATION
- 4. AMENDMENTS AND REVISIONS
- 5. DEFINITIONS AND ABBREVIATIONS
- 6. ENFORCEMENT
  - 6.01 Authority of City
  - 6.02 Violations
  - 6.03 Deviations
- 7. RESPONSIBLE PARTY RESPONSIBILITIES
- 8. PLANS FOR REVIEW
- 9. SUBMITTALS
- 10. RESPONSIBILITY FOR DESIGN AND CONSTRUCTION
- 11. PRE-CONSTRUCTION MEETINGS
  - 12.01 Pre-Bid Meeting
  - 12.02 Pre-Construction Meeting
- 12. NOTIFICATIONS BY RESPONSIBLE PARTY
- 13. CONTROL OF WORK AND MATERIALS
  - 13.01 Work Hours
  - 13.02 Authority of City
  - 13.03 Responsibility of Responsible Party
  - 13.04 Delivery and Storage of Materials
  - 13.05 Work Conditions
  - 13.06 Defective Materials
  - 13.07 Unacceptable or Authorized Work
- 14. PROTECTION OF FACILITIES, PROPERTY AND IMPROVEMENTS
  - 14.01 Protection of Existing Facilities and Improvements
  - 14.02 Utility Relocation
  - 14.03 Responsibility for Repair
  - 14.04 Public Safety and Convenience
  - 14.05 Protection of Water Supply, Lakes, Streams and Reservoirs
- 15. SAFETY
- 16. SANITATION FACILITIES

17. TRAFFIC CONTROL
18. STOP WORK ORDER
19. PRECEDENCE OF SPECIFICATIONS AND TYPICAL DRAWINGS
20. CHANGES TO APPROVED PLANS AND SPECIFICATIONS
21. RECORD DRAWINGS AND OPERATION AND MAINTENANCE DATA
22. ACCEPTANCE, OPERATION AND MAINTENANCE
23. SERVICE RATES

## GENERAL REQUIREMENTS

### GENERAL PROVISIONS

The provisions stipulated in this section are general in nature and shall be considered as applicable to all parts of these Standards, including any supplements and revisions as allowed by City ordinances and regulations.

#### 1. PURPOSE

The purpose of these Standards is to provide minimum standards to safeguard life, health, property, and public welfare by regulating and controlling the design, construction, quality of materials, use, location, and maintenance of all public improvements and private improvements of common ownership including, but not limited to, sanitary sewer systems, water supply systems, storm drainage systems, wire utilities, streets, pedestrian facilities, open space, parking lots, and appurtenances thereto.

The purpose of these Standards is also to insure that the City receives public facilities which are constructed with the care and materials such that the facility meets or exceeds the normal service life requirements for similar installations and to insure that when said facilities are transferred to the City's ownership that they will be free from all defects and in suitable working order to provide the service capabilities anticipated with such a facility while protecting public and private interests.

#### 2. APPLICABILITY

Any reference to City Standards, construction regulations, or the like in any City ordinance, contract, policy, permit, license or regulations shall be deemed to mean these Standards. These Standards shall apply to construction, enlargement, alteration, moving, removal, conversion, demolition, repair, and excavation of any public improvements or private improvements of common ownership. The provision of these Standards applies to City contracts, utility extension agreements, and contracts made for the development of property in the City. In the case of City capital improvement contracts, the project specifications may supersede or modify these Standards. Alterations, additions or repairs to existing improvements shall comply with all requirements of these Standards unless specifically exempted, in writing, by the City. The City retains the right to require additional information, criteria, or requirements as conditions may warrant. Provisions of City ordinances inconsistent with these Standards shall control.

#### 3. INTERPRETATION

In the interpretation of the provisions of these Standards the following shall govern:

- (A) In its interpretation, the provisions of these Standards shall be regarded as the minimum requirements for the protection of the public health, safety, comfort, convenience, prosperity, and welfare of the residents of the City and the general public.
- (B) Whenever a provision of these Standards or any provision in any law, ordinance, resolution, rule or regulation of any kind, contain any restrictions covering any of the same subject matter, whichever standards produce higher quality shall govern.
- (C) These Standards shall not abrogate or annul any permits or approved drainage reports and construction plans issued or any easement or covenant granted before the effective date of these Standards. However, if the review and approval of construction plans, specifications, and associated engineering reports by the City has occurred more than twelve (12) months prior to execution of a Utility Extension Agreement or commencement of construction activities, or the improvements are not substantially complete, the City shall have the right to require another review process for the plans, specifications, and reports to insure compliance with these Standards.
- (D) The City shall not act arbitrarily and shall take care to fairly interpret and enforce the requirements in these Standards and in the City code and regulations. In addition, the City shall not take actions beyond what is required in these Standards, the City Code, and regulations unless it is to protect the health, safety, and welfare of the public.

#### 4. AMENDMENTS AND REVISIONS

These Standards may be amended from time to time in accordance with City procedures. It is the responsibility of the Responsible Party to obtain all revisions to these Standards.

#### 5. DEFINITION AND ABBREVIATIONS

Wherever the following words, phrases or abbreviations appear in the specifications, they shall have the following meanings:

5.01 City shall mean the City of Ouray, Colorado. When referencing an individual, the City shall mean a designee of the City Council.

5.02 City Code shall mean the official adopted City Code and Regulations of Ouray, Colorado.

5.03 Engineer shall mean the City Public Works Director, City of Ouray, Colorado, or his authorized representatives acting on behalf of the City.

5.04 Inspector shall mean an authorized representative of the City and/or City's Public Works Director at the site of work.

5.05 Owner's Representative (OR) shall mean any person or persons (including Engineer) authorized by the City of Ouray acting on behalf of the applicant or developer.

5.06 Developer shall mean the person, partnership, or corporation responsible for financial obligations to provide improvements for the City's continued ownership and maintenance or to be constructed in a City right-of-way or easement.

5.07 Developer's Engineer – A duly registered professional engineer in the State of Colorado employed by the Developer to prepare the required engineered drawings and documents for the construction of improvements for the City's continued ownership and maintenance or to be constructed in a City right-of-way or easement.

5.08 Developer's Representative shall mean any person or persons authorized by the Developer to act on behalf of the Developer.

5.09 Contractor shall mean a person, partnership, or corporation responsible to construct improvements (facilities, infrastructure, etc.) to be dedicated to the City for ownership or maintenance or to be constructed in a City right-of-way or easement.

5.10 Public Improvements include: all work in the public right-of-way, City property, easements dedicated to the City, private property that will become City property or an easement to the City in the future, and projects or utilities that will become the City's responsibility to maintain.

5.11 Designated Private Construction Work includes: private sewer systems, water and sewer service lines to buildings, grading, drainage structures, retaining walls, parking lots, private streets and walks, fire lanes, driveways, and associated construction built on private property.

5.12 Record Drawings: A set of drawings prepared by a registered Professional Engineer in the State of Colorado which reflect the information of record for construction of any public improvements. Commonly referred to as "As-Builts."

5.13 Responsible Party: These Standards are for the Design and Construction of Public Improvements and improvements in public rights-of-way, City property and easements, and private property of common ownership. Therefore, the Responsible Party shall be anyone liable for the design and/or construction of public improvements projects related to these Standards and Specifications and may include but not be limited to the Contractor, Developer, Permittee, Builder, Engineer, Consultant, and Owner.

5.14 Utility shall include the water and sewer utilities of the City of Ouray and all other utilities (e.g., power, telephone, cable, gas, etc.) provided by other entities.

5.15 Expressions

5.15.a Wherever the words “as directed,” “as required,” “as permitted” or words of like meaning are used, it shall be understood that the direction, requirements or permission of the City is intended. Similarly, the words “approved,” “acceptable,” “satisfactory” shall refer to approval by the City or its Representative.

5.15.b Wherever the words “these specifications,” “Standards and Specifications,” “Standards” or words of similar connotation are used, it shall be understood that reference is made to the City of Ouray, Standards Specifications and Typical Drawings for Infrastructure Design and Construction, including all parts, supplements and revisions pertaining thereto.

5.15.c Whenever references are made to standard specification, methods of testing materials, codes, practices, and requirements, it shall be understood that the latest revision of said references shall govern unless a specific revision is stated.

5.16 Abbreviations

Wherever any of the following abbreviations appear, they shall have the following meaning:

AASHTO	American Assoc. of State Highway and Transportation Officials
ACI	American Concrete Institute
ADA	American Disabilities Act
AISC	American Institute of Steel Construction
ANSI	American National Standards Institute
APWA	American Public Works Association
ASTM	American Society for Testing and Materials
ATSSA	American Traffic Safety Services Association
AWWA	American Water Works Association
CDPHE	Colorado Department of Public Health and Environment
CDOT	Colorado Department of Transportation
CMP	Corrugated Metal Pipe
CMPA	Corrugated Metal Pipe Arch
CUHP	Colorado Urban Hydrograph Procedure
CWCB	Colorado Water Conservation Board
DIP	Ductile Iron Pipe
EPA	US Environmental Protection Agency
FEMA	Federal Emergency Management Agency

FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
	“Green AASHTO’s “A Policy on Geometric Design of Highways and Streets” Book”
MUTCD	Manual on Uniform Traffic Control Devices
NFIP	National Flood Insurance Program
NPDES	National Pollution Discharge Elimination System
OR	Owner’s (City’s) Representative
OSHA	Occupational Safety and Health Association
PUD	Planned Unit Development
PVC	Polyvinyl Chloride
RCP	Reinforced Concrete Pipe
ROW	Rights-of-Way
SCS	Soil Conservation Service
UNCC	Utility Notification Center of Colorado
USDCM	Urban Storm Drainage Criteria Manual (MANUAL)
USGS	United States Geological Survey

## 6. ENFORCEMENT

### 6.01 Authority of the City

6.01.a The City Public Works Director, or Officer designated by the Council shall have the authority on behalf of the City to ascertain that all design and construction of infrastructure, surface improvements, and facilities are equal to or better than the minimum requirements set forth in the City Standards and in other known applicable State and Federal requirements.

6.01.b The City will resolve all questions that arise as to the quality and acceptability of designs proposed, materials furnished, work performed, interpretation of the plans and specifications, and acceptable fulfillment of the requirements of the City Standards.

6.01.c The City’s inspector is authorized to inspect all work and all material furnished. Inspections may extend to all or any part of the work and to the preparation, fabrication, or manufacture of the materials to be used. The inspector is not authorized to revoke, alter, or waive any requirements of these Standards. They are authorized to call the attention of the Responsible Party to any failure of the work or materials to conform to these Standards. The inspector will have the authority to reject materials until the City resolves any and all questions at issue.

6.01.d The City and its inspector will, at all times, have reasonable and safe access to the work whenever it is in preparation or progress and the Responsible Party will provide proper facilities for such access and inspection.

6.01.e The City will have the authority to stop work whenever such stoppage may be deemed necessary.

6.01.f The City's inspector will, in no case, act as foreman or perform other duties for the Responsible Party nor interfere with the management of the work performed by the Responsible Party. Any "advice" or "opinion" which the inspector may give the Responsible Party will not be construed as binding upon the City representative or the City in any way or release the Responsible Party from fulfilling all of the terms of these Standards and the approved plans. The presence or absence of the inspector will not relieve, in any degree, the responsibility or the obligation of the Responsible Party.

6.01.g The Developer's Engineer may assign an inspector to check any and all Work, including materials to be incorporated in the Work, and all construction methods and practices at his or the Developer's expense.

## 6.02 Violations

No person, firm, or corporation shall construct, enlarge, alter, repair, move, improve, remove, excavate, convert, or demolish any public improvements or private improvements in common ownership or permit the same to be done in violation of these Standards. Whenever any work is being done contrary to the provisions of these Standards, the City's representative may order the work stopped by a written notice in accordance with Section 19 of these Standards.

## 6.03 Deviations

6.03.a The provisions of these Standards are not intended to prevent the use of any material or method of construction not specifically prescribed by these Standards provided any alternate has been previously approved and its use authorized in writing by the City.

6.03.b Whenever there are practical difficulties involved in carrying out the provisions of these procedures, the City may grant a deviation for individual cases, provided that the City shall first find that a unique reason makes these Standards impractical and that the modification is in conformity with the intent and purpose of these Standards, and providing that such deviation does not lessen any design requirements or any degree of structural or operational integrity. The Responsible Party shall provide the City with sufficient specifications, evidence, justification, calculations, and/or proof to substantiate any claims that may be made regarding



the hardship and alternate material, detail, or technique. The City, in its sole discretion, will decide upon the acceptability of any proposed deviation.

## 7. RESPONSIBLE PARTY RESPONSIBILITIES

7.01 It shall be the responsibility of the Responsible Party and his representatives to read and fully comply with all the provisions of the Standards and all laws and regulations that apply to local and state agencies. The Responsible Party is responsible for ensuring that all construction and construction activities and materials are in compliance with these Standards.

7.02 The Responsible Party shall take such precautions as may be necessary to provide a safe work environment, prevent damage to the project and other properties, provide for public safety, normal drainage, and erect any necessary barricades, signs, or other facilities at his expense as required by these Standards and good construction practice.

7.03 The Responsible Party shall be solely responsible for all construction means, methods, techniques, sequences, and procedures and shall be responsible for the acts and omissions of his employees, subcontractors, and their agents and employees.

7.04 The Responsible Party shall be solely responsible for locating all existing underground installations, including service connections, in advance of excavating. City maps and databases are intended to be used for general information only, and the location of any utilities or property lines as found on the maps or databases shall be verified in the field prior to proceeding with design where interferences may occur or with work in the area as applicable.

## 8. PLANS FOR REVIEW

8.01 The Developer or other Responsible Party shall submit to the City for review and approval completed plans and specifications for any proposed improvements including water, sanitary and storm sewer, streets, walks, parks, wire utilities, etc., that will become the ongoing ownership and/or maintenance of the City, be constructed on City property, in a City right-of-way or easement, or commonly owned by private individuals. The Responsible Party will be provided with written comments and questions that result from the City's review. Unless the requirement is waived by the City, plans and specifications shall be prepared and stamped by a registered professional engineer licensed in the State of Colorado. Street plans may also be prepared and stamped by a qualified licensed land surveyor.

8.02 Plans shall include an overall plan showing lots and blocks to be served and the locations of all utilities to be constructed. Reference to the sheet containing the detail for the area shall also be shown.

8.03 Detail plans for all infrastructure and surface improvements shall have a minimum scale of 1 inch equals 50 feet unless the minimum lot size is larger than 1.0 acres in which case the minimum scale shall be 1" = 100'. Plan view drawings shall include at least two (2) foot contours to show overall topography of the lots to be served and the existing and proposed topography of the streets and drainage. Water plans shall show the location, dimension, and grades of the existing and proposed water mains, valves, fittings, hydrants, and other appurtenances, and all service lines with reference to property lines and stationing. Profiles shall be required, unless waived by the City on an individual project basis. Roads and sewer lines shall have the same minimum scale and shall include both plan and profile on the same page and at related scales. Profile drawings should show all taps and crossings (including mains, service lines, culverts, etc.). Sewer plans shall show location, dimensions, stationing, and grades of mains, manholes, taps, and appurtenances. Street plans shall include locations, stationing, dimensions, and grades for centerline and gutter or drainage. Monumentation of new streets shall include permanent centerline monuments which shall be shown on the plans. All other proposed improvements shall be shown on the plans, as should all existing infrastructure and improvements.

8.04 Detail drawings shall be of a scale sufficient to clearly describe the particular item. The type, size, approximate location and number of all known underground utilities shall be shown on all drawings.

8.05 Where materials to be furnished are other than those commonly used by the City, the plan submittal should include specifications and support information for those materials so that the City can determine that the materials meet the intent of these Standards. The Responsible Party should be aware of the Operation and Maintenance submission requirements in Section 21.

8.06 The cost of plan review and enforcement of these Standards and related City ordinances and regulations will be based on the City Code as amended from time to time. The minimum fee shall be \$50.00, plus out-of-pocket costs the City incurs for engineers, technical review, attorney's fees, and/or other reasonable expenses.

8.07 The City shall review and return one copy of said plans (assuming more than one copy was submitted) with either a stamp of approval or a letter designating necessary revisions required to receive approval. Upon presentation of the plans revised as per this letter, the City will approve the plans without undue delay unless there are other changes to the plans which create problems or the revisions are not re-submitted within 60 days, in which case they will be re-checked as outlined in the next paragraph.

8.08 If re-submittal of plans is required, the re-submitted plans shall indicate all revisions (including those not requested by the City) from the previous submittal. It is suggested that the Responsible Party also provide a letter explaining how each of the City's comments has been addressed.

8.09 Construction plans approved by the City shall be effective for a period of 12 months from the date of approval unless otherwise approved in writing by the City. After 12 months, the documents for Work not yet constructed shall be subject to re-review by the City to bring those portions of the documents into compliance with then current City standards and drawings and subject to additional fees.

## 9. SUBMITTALS

The Responsible Party shall provide submittal of information including samples, drawings, reports, field notes, and data as appropriate on all specific materials to be supplied for review and approval by the City for conformance with City specifications. Samples shall be collected, stored and tested in accordance with methods in these Standards, or if not addressed in these Standards, as specified by the City. Tests of materials shall be by an entity acceptable to the City. Materials for construction shall not be purchased prior to such approval. Shop drawings shall be provided for major mechanical installations such as lift stations, pressure-reducing stations, etc. Shop drawings shall be of a scale sufficiently large to show all pertinent features of the item and its layout, setting, method of connection, etc., to the Work.

The City reserves the right to reject any materials or equipment which does not fully comply with the City's Standards.

## 10. RESPONSIBILITY FOR DESIGN AND CONSTRUCTION

The City shall have full authority to review and approve all submittals and construction for compliance with these Standards. An approval or acceptance by the City does not relieve the Responsible Party from responsibility for ensuring that the calculations, plans, specifications, construction, and record drawings are in compliance with these Standards. Any approval or acceptance by the City shall not result in any liability to the City or its employees and consultants for any claim, suit, loss, damage, or injury resulting from the use or implementation of the approved document.

## 11. PRE-CONSTRUCTION MEETINGS

### 11.01 Pre-Bid Meeting

On projects where the Responsible Party will be receiving bids, the Responsible Party is encouraged to have a meeting for interested bidders prior to receiving bids. The Responsible Party should invite all bidders and all utilities which are involved in the project to attend the meeting. One purpose of the meeting should be to make bidders aware of the scope of the project, the site conditions, and City requirements.

## 11.02 Pre-Construction Meeting

Unless the requirement is waived by the City, a pre-construction conference shall be held prior to commencing construction. In attendance shall be the Responsible Party, his Contractor including the on-site project superintendent and representatives of the City as designated by the City. Representatives of other utilities which will be impacted by the project shall be given notice of the meeting sufficiently in advance by the Responsible Party or his representative to reasonably allow their attending. The purpose of the meeting will be to review and coordinate construction schedules, review City requirements during construction, address any questions, discuss anticipated problems, establish ground rules for working together, and develop an inspection schedule.

## 12. NOTIFICATIONS BY RESPONSIBLE PARTY

12.01 The Responsible Party shall notify the City at least three working days before beginning any work. If, for any reason, the Responsible Party should halt Work on a project during any stage of construction for more than one working day, it shall be the responsibility of the Responsible Party to notify the City or its designated representative a day (orally or in writing) in advance of resuming construction.

12.02 Non-Regular Work Hours: If the Responsible Party intends to work non-regular work hours, Responsible Party shall notify the City in writing and receive written approval at least 24 hours prior to such work, except in the event of an emergency. Failure to provide such notifications may provide sufficient cause for the suspension of the Project in accordance with Section 18 below.

12.03 Emergency Notice: In the case of an emergency situation, the Responsible Party shall notify the City by contacting the on-call City representative, and then proceed to safely address the emergency situation(s). Once the emergency is safely addressed, Work shall cease until proper notice can be given. The non-emergency Work will then proceed in accordance with a normal work schedule. If any Work is completed and covered without oversight by the City, that Work shall, at the City's request, be uncovered at no expense to the City, so that the City can confirm the Work was completed in accordance with the approved plans and these Standards.

12.04 Testing: The Responsible Party or his representative shall be responsible for providing notice to the City at least 24 hours in advance of any testing which will be to demonstrate compliance with the plans and City Standards. A representative of the City shall be present at all tests for conformance with the plans and specifications and City Standards and, where applicable, shall determine where and how the tests are performed. Should the Responsible Party fail to provide such notification and a representative of the City not be present during any testing, the tests shall be deemed to have been at the convenience of the Responsible Party rather than for acceptance by the City. The City shall have

the right to require re-testing, including re-exposing the Work should that be necessary to demonstrate conformance with approved plans and specifications and City requirements.

### 13. CONTROL OF WORK AND MATERIALS

#### 13.01 Work Hours

Except in an emergency, the Responsible Party shall not permit work to proceed in non-regular City work hours or overtime work without the City's written consent given in accordance with Section 13.02 Notification above. The Responsible Party shall reimburse the City for all expenses of the City, including construction observation and testing incurred as a result of working during non-regular hours. Regular hours shall not exceed eight hours in a 24-hour period (and shall typically conform to the City normal work hours) nor 40 hours in a seven-day period, nor include Saturdays, Sundays, or legal holidays. All other work hours shall be considered "non-regular."

#### 13.02 Authority of the City

13.02.a The City reserves the right to provide full-time construction inspection of all infrastructure and improvements which the City will ultimately own and/or maintain or which is located in City easements or rights-of-way. The cost of such inspection will be charged to the Responsible Party at a predetermined hourly rate. Any complaints from the Responsible Party will be reviewed promptly by the City. (See also Section 6.01.)

13.02.b The City's representative, if provided, is there to insure that the Work complies with these specifications. The City's representative has the authority to reject defective material, defective workmanship, and to suspend Work until such time as the Contractor shall correct the situation in question, subject to final decision by the City.

#### 13.03 Responsibility of Responsible Party

The responsibilities listed here are in addition to those in Section 7 and elsewhere in these documents.

13.03.a The Responsible Party shall provide proper and safe conditions for inspection of the Work.

13.03.b The Responsible Party shall arrange and pay for all testing required to demonstrate work and materials conform to the City Standards.

13.03.c The Responsible Party shall not cover or enclose work until inspected and tested in the presence of the City's representative. When tests and inspections are complete, they shall be checked and approved by the City. Should any work be enclosed or covered up before such inspection, testing and approval, if requested by the City, the Responsible Party shall, at his

expense, uncover the Work unless the Responsible Party has given the City three (3) working days notice of the Responsible Party's intention to cover the same and the City has not acted within minimum three (3) working days in response to such notice. If any Work is covered contrary to the City's request, the Work must be uncovered by the Responsible Party for City's observation and replaced at Responsible Party's expense. After inspection testing and approval, the Responsible Party shall make all repairs as necessary to restore all Work disturbed by him to its original condition.

13.03.d If Work is performed during non-regular hours as defined in Paragraph 13.01 above without authorization of the City and the Work is covered during that period, the Work must, if requested by the City, be uncovered for the City's observation and replaced at the Responsible Party's expense in accordance with Paragraph 14.03.c.

#### 13.04 Delivery and Storage of Materials

Deliver materials, products and equipment to the project site in undamaged condition in the manufacturer's original, unopened containers or packaging, with identifying labels intact and legible. Store and handle products as prescribed by the manufacturer or as specified in the specifications in a manner to protect from damage and moisture, weather, abuse or construction operations. Materials will be stored so as to ensure the preservation of their quality and suitability for the work. Stored materials, even though approved prior to storage, will be subject to inspection prior to their use in the work and must at that time meet all requirements of these Standards at the time they are used. Stored materials shall be located so as to facilitate inspection. The Responsible Party shall be responsible for providing adequate storage and protecting stored materials at his expense.

#### 13.05 Work Conditions

13.05.a Protect Public Safety: The Responsible Party shall maintain the condition of the work site such that public safety and welfare is protected.

13.05.b Workmanship shall be the very best. Lack of quality in workmanship shall be considered sufficient reason for rejection in part or in whole.

13.05.c Site Maintenance and Cleaning: Throughout the construction period, the Responsible Party shall provide all required personnel, equipment, and materials needed to maintain the site in a reasonable standard of cleanliness and in accordance with this sub-section. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws. Do not burn or bury rubbish and waste materials on project site. Do not dispose of volatile wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains or in a manner which might cause ignition. Do not dispose of wastes into streams or waterways.

The Responsible Party shall also take care to avoid “tracking” debris onto any public street and will be responsible for the prompt cleaning of any debris which is tracked. Maintain rights-of-way and surrounding properties free from accumulations of waste, rubble, debris, and rubbish caused by construction operations. Wet down dry materials and rubbish to lay dust and prevent blowing dust as frequently as necessary. At reasonable intervals during progress of work, clean site and public properties, and dispose of waste materials, debris, and rubbish in a legally allowable manner. Provide on-site trash receptacles for collection and storage of waste materials in an orderly manner which will not impede normal or emergency access or people and equipment, nor obstruct drainage. Remove waste materials, debris and rubbish from the site and legally dispose of them at public or private dumping areas off the Owner’s property.

13.05.d Final Cleaning: At completion of Work, remove waste materials, rubbish, tools, equipment, machinery, and surplus materials, and clean all exposed and visible surfaces. Correct any settlement and address any areas impacted. Leave project clean and ready for intended use. Restore all disturbed surfaces to original condition. Maintain clean work site until project, or portion thereof, is accepted by the City. Schedule final cleaning so City can accept a completely clean project.

#### 13.06 Defective Materials

All materials installed must conform to these Standards and shall be free of defects of manufacture or damage. Any defective or damaged materials found in the construction or on the construction site shall be marked and removed from the site. In the event the Responsible Party fails to remove rejected materials from the construction site within a reasonable length of time, the City may arrange for such removal at the expense of the Responsible Party.

#### 13.07 Unacceptable or Unauthorized Work

13.07.a Work which does not conform to the City Standards and/or which results in an inferior or unsatisfactory product will be considered unacceptable work. Unacceptable work, whether the result of poor workmanship, poor design, use of defective materials, damage through carelessness, or any other cause which is found to exist prior to the final acceptance of the work will be immediately removed and acceptably replaced or otherwise satisfactorily corrected by and at the expense of the Responsible Party. This expense includes total and complete restoration of any disturbed land or surface to original or better than the original condition that existed before the repairs or replacement.

13.07.b Unauthorized work includes Work which is conducted without City approval of the plans or Work which is completed without giving required Notice to the City. The City may reject the Work and require its removal as is required above for unacceptable Work or take other actions the City feels are appropriate. Those actions may include issuing a stop work

order and/or requiring the Responsible Party, at no expense to the City, to expose the Work and allow the City to observe the materials and installation.

#### 14. PROTECTION OF FACILITIES, PROPERTY AND IMPROVEMENTS

##### 14.01 Protection of Existing Facilities and Improvements

14.01.a The Responsible Party shall contact the Utility Notification Service of Colorado at 1-800-922-1987 in adequate advance of work.

14.01.b The Responsible Party shall notify all utility companies and interested parties prior to commencement of work in order to insure that there will be no unnecessary or unplanned interruption of services during construction.

14.01c The Responsible Party at all times shall take proper precautions for the protection of and prevent damage to public and private property, including utility lines, manholes, valve boxes, survey monuments, fences, plantings, and other structures and improvements. Hand-excavation and support of existing lines shall be used where necessary. The Responsible Party shall be liable for all damages to existing structures and improvements, public or private, caused by his activities or inactivities, and he shall save the City harmless from any liability or expense for injuries, damages, or repairs to such facilities. The Responsible Party shall at all times take proper precautions for the protection of and replacement or restoration of driveway culverts or pans, street intersection culverts, pans, or aprons, storm drains or inlets, fences, irrigation ditches and crossings and diversion boxes, mail boxes, shrubbery, flowers and ornamental trees, driveway approaches and all other public and private installations and improvements that may be encountered during construction.

14.01.d The Responsible Party is required to provide each property with access to and from the property during the time of construction. Existing driveways shall be cut, filled, and graded as required to meet new construction. Existing driveways shall be resurfaced with the presently existing type of surfacing whenever existing surface is destroyed.

14.01.e The Responsible Party will protect and carefully preserve all land boundary, topographic, and City survey control monuments unless otherwise arranged in writing with the City. All monuments disturbed or removed by the Responsible Party through negligence or carelessness on his part or on the part of his employees or subcontractors will be replaced by a land surveyor registered in the State of Colorado, at the Responsible Party's expense.

##### 14.02 Utility Relocation



In the event that during construction it is determined that any underground utility conduit, including (but not limited to) sewers, water mains, gas mains and drainage structures, and any above ground utility facilities are required to be relocated, the Responsible Party shall notify the utility owner well in advance of his approach to such utility so that arrangements with the City and/or owners of the affected utility can be completed without delay of the work.

#### 14.03 Responsibility for Repair

14.03.a Should any utility be damaged in the construction operations, the Responsible Party shall immediately notify the owner of such utility, and unless authorized by the owner of the utility, the Responsible Party shall not attempt to make repairs. The Responsible Party will be responsible for the cost of repair of underground pipes, wires or conduits damaged by them or their subcontractors.

14.03.b The Responsible Party will be responsible for the repair of any damage or destruction of property resulting from neglect, misconduct, or omission in his manner or method of execution or non-execution of the Work or caused by defective work or the use of unsatisfactory materials. The Responsible Party will restore such property to a condition equal to or better than that existing before such damage or injury was done by repairing, rebuilding, or replacing it as may be directed by the City, or they will otherwise make good such damage or destruction in a manner acceptable to the City and the property owner.

#### 14.04 Public Safety and Convenience

14.04.a **Disruption in Service:** Should it be necessary for any utility service to existing consumers to be disrupted for any reason, the Responsible Party shall provide as much notice as possible to those whose service will be disrupted, coordinating such activity with the City to minimize impact on consumers and assist the City in providing inspection. Responsible party shall schedule work in a manner which will minimize disruption and inconvenience to others. At a minimum, the Responsible Party shall provide written notice to each affected consumer at least 48 hours in advance. Notice shall be by personal contact and written notice to each structure. When service to commercial customers will be disrupted, the Responsible Party and the City shall meet with each business at least three days in advance and determine when it would be least inconvenient to have service disrupted. If at all possible, the service interruption shall be at a time which will have the least impact on all the consumers affected. Should construction necessitate street or road closures, advanced notice in local newspaper will also be required. When the Work involves excavation adjacent to any building or wall along the Work, the Responsible Party will give property owners due and sufficient notice thereof, in writing with a copy to the City.

14.04.b Emergency Disruption: When service is unexpectedly disrupted, the Responsible Party shall notify each affected consumer as expeditiously as possible and notify when service will be restored, and shall use all means at his disposal to minimize the length of disruption.

14.04.c Minimizing Disruptions: The length of disruption in service shall be kept to an absolute minimum. All work which can be done in advance shall be done and inspected and found acceptable by the City and other appropriate entities before the service interruption begins. All personnel, materials and tools shall be on site and ready prior to disrupting service. Responsible Party shall make use of personnel, materials, and equipment which will reduce the length of service disruption. For example, megalugs and temporary restraints shall be provided in addition to required thrust blocks so water lines can be re-pressurized as soon as initial backfill is compacted.

14.04.d Phasing Disruptions: When the work which will cause the disruption can be phased, the Developer in coordination with City, shall work with the affected customers to determine whether one long or multiple shorter disruptions are preferable.

14.04.e Use of Explosives: The use of explosives must be approved in writing by the City and will only be allowed when no less dangerous method is practical. If approved, the Responsible Party will use the utmost care to protect life and property and shall be liable for any damages which result. Signals warning persons of danger will be given before any blast. Excessive blasting or overshooting will not be permitted. The City will have authority to order any method of blasting discontinued that leads to overshooting, is dangerous to the public, or destructive to property, environment or natural features.

Before any blasting is to be performed by the Responsible Party, a certificate of insurance indicating special blasting coverage in the following minimum amounts will be filed with the City:

Property damage, each accident	\$2,000,000
Public liability, bodily injury single limit or equivalent, each accident	\$2,000,000

The City reserves the right to require additional insurance coverage if the circumstances warrant.

The City has the right to require detailed inspections by an independent consultant or by City inspectors on any structures or properties located in the vicinity of the blasting, both before and after the blasting activity. The cost for such inspections shall be the responsibility of the Responsible Party.

15.04.f Protection of Potable Water Supply, Streams, Lakes, and Reservoirs: The Responsible Party shall conserve water and shall not waste or let water flow unused and shall be sure that waters used for cleaning and flushing are disposed of in a manner which will not create a health, safety, or nuisance problem. He shall furnish all needed backflow devices to insure sanitary protection of the City's water supply. The Owner reserves the right to curtail the Responsible Party's use of water during periods of shortage in its transmission and distribution system.

The Responsible Party will take all necessary precautions to prevent pollution of streams, lakes, and reservoirs by sediment, fuels, oils, bitumens, calcium chloride, fertilizers, insecticides, or other harmful materials. They will conduct and schedule their operations to avoid or minimize runoff, pollution, and/or siltation of streams, lakes, and reservoirs. A plan for erosion protection and drainage control shall be submitted to the City, and all required drainage and erosion control measures shall be in place before starting work. All work must conform to all applicable local, state, and federal regulations.

## 15. SAFETY REQUIREMENTS

15.01 All installations shall be made in a safe manner which complies with current OSHA and other applicable local, state, and federal requirements. The Responsible Party shall be solely responsible for providing adequate safety on the project.

15.02 Although not obligated to do so, if the City observes any unsafe work condition at any time, they may issue a stop work order to be issued until the unsafe condition is properly remedied.

15.03 When, in the opinion of the City, the Responsible Party has not taken sufficient precautions for the safety of the public or the protection of the work to be constructed, or if adjacent structures or property which may be damaged by processes of construction on account of such neglect, and an emergency arises and immediate action is considered necessary in order to protect private or public interests, the City, WITH OR WITHOUT NOTICE to the Responsible Party, may provide suitable protection by causing such work to be done and material to be furnished and placed as the City may consider necessary and adequate. The cost and expense of such work and material so furnished will be borne by the Responsible Party and will be paid within thirty (30) days of presentation of the bills. The City may also draw from the Responsible Party's surety to cover any nonpayment, including accrued interest and applicable overhead costs. The performance or non-performance of such emergency work under the direction of the City will in no way relieve the Responsible Party of responsibility for damages which may occur during or after such precaution has been taken.

16. SANITATION FACILITIES

The Responsible Party shall provide and maintain adequate water service for drinking and sanitation purposes, as well as for construction purposes at the job site throughout the duration of this Contract. He shall also provide proper sanitary facilities, as and where needed, for the duration of the construction.

17. TRAFFIC CONTROL

The Responsible Party shall be required to provide adequate construction signing, flagmen, barricades, etc., to warn vehicular and pedestrian traffic of work in progress, obstacles, etc., and divert traffic as may be required in the course of construction. All signing and traffic control shall be subject to approval of the City Police Chief and generally in accordance with the Manual of Uniform Traffic Control. When specifically authorized by the City Police Chief, portions of a street may be allowed to be partially closed to traffic for construction, though typically not more than one half the street at the time. Responsible Party shall make every attempt to minimize time of such closures. In addition to the requirements listed above under "Disruption of Service," it shall be the responsibility of the Responsible Party to notify the Police Chief, Sheriff, Fire, Ambulance, and other applicable emergency services at least 24 hours prior to such closures.

18. STOP WORK ORDER

18.01 Any City approval may be revoked or suspended by the City and a stop work order may be issued after adequate notice to the Responsible Party if the Responsible Party fails to adequately address the notice in a timely manner given the situation (taking into consideration health, safety and welfare), for:

1. Violations of any condition of the Utility Extension Agreement, or of the approved construction drawings or specifications; or
2. Violation of any provision of these Standards; or
3. Existence of any condition or the occurrence of any act which may constitute or cause a condition endangering health, life, or safety, or serious damage to property.

18.02 A suspension or revocation by the City and stop work orders shall take effect immediately upon notice to the person performing the work in the field and shall remain in effect until such time as the City cancels the order in writing. A failure to abide by the terms of the suspension or revocation will be considered a violation of City ordinance.

18.03 Upon receipt of a stop work order, the Responsible Party shall be responsible for taking such precautions as may be necessary to prevent damage to the project, prevent inconvenience or hazardous conditions for the general public, provide for normal drainage, and to erect any necessary barricades, signs, or other facilities which may be necessary or directed by the City.

19. PRECEDENCE OF SPECIFICATIONS AND TYPICAL DRAWINGS

Where there is a conflict between these General Requirements, Technical Specifications, and Typical Drawings, the conflict should be promptly called to the attention of the City and the City will determine the resolution. In general, the more stringent standard shall apply. Where there are conflicts between the technical specifications and the typical drawings, the typical drawings will generally be the governing requirement.

20. CHANGES TO APPROVED PLANS AND SPECIFICATIONS

20.01 All proposed changes, except field changes, to the approved plans and specifications shall be submitted to the City for review and written approval obtained prior to commencing construction. Such changes shall be submitted as soon as they are contemplated to allow as much review time as is possible and to adjust any other facilities which may be impacted by the change. "Changes" include additions and deletions as well as changes to all utilities and improvements located in public rights-of-way, on City property, or in utility or other City easements.

20.02 The Responsible Party shall distribute copies of approved changes to the City, utility Owner, Responsible Party subcontractors, Developer, and the Developer's Engineer, and other parties with an interest or impact. No work shall proceed on that portion of the project being revised until said revisions are submitted, approved by City and Utility Owner and Developer, and distributed.

20.03 Field changes shall be discussed with the City and shall receive a verbal approval before being implemented. Field changes shall be defined as minor deviations in the Work which do not result in significant changes in location or function or minimum standard of the item being altered, or a change in contract price.

21. RECORD (AS-CONSTRUCTED) DRAWINGS AND OPERATION AND MAINTENANCE DATA

21.01 Unless otherwise agreed in writing, during construction the Responsible Party shall keep a log of the construction progress and the field location of the new facilities. All buried facilities and lines shall be tied to permanent surface monuments, using centerline monuments when available, at 200 foot intervals or less. Valves, fittings, appurtenances, vaults, cleanouts, and manholes shall be tied to a minimum of three permanent surface monuments. Depths and elevations shall be recorded at each station as well. Record drawings shall be 24" x 36" lettered drawings, at a scale at least as large as

required in Section 8, and shall be prepared noting the final sizes, locations, and ties at all of the required locations. These drawings shall also note the brand names, model numbers, and sizes of all manufactured equipment installed as part of the project. Approved record drawings shall be a requirement for release of security and/or Final Completion unless the deadline is specifically extended by the City. Once the record drawings have been approved by the City, the Responsible Party shall promptly submit a paper blueprint copy of the approved drawings and a digital copy in an AutoCAD readable and editable format.

21.02 Where equipment is installed which is not the same as equipment already in use in the City system, the Responsible Party shall submit manufacturer's literature on the equipment or device. If necessary, Responsible Party shall provide supplemental O&M data on materials if there is not sufficient detail in the manufacturer's literature to operate and maintain the equipment and for complete repair of all repairable parts. Such information shall be submitted and approved by the City prior to the City accepting the project as Substantially Complete. Any specialized tools required to perform such O&M shall be provided to the City at no expense to the City. Unless the City already has an inventory of spare parts for the particular equipment, a complete set of spare parts to overhaul the equipment shall be provided by the Responsible Party (or Developer) to the City prior to Substantial Completion.

## 22. ACCEPTANCE, OPERATION AND MAINTENANCE

The requirements in this section are in addition to the requirements in the Encroachment Permit for the work.

Following the satisfactory completion of construction, all required testing as defined in applicable minimum and standard specifications, and delivery of all required equipment and materials and necessary documents (including record drawings and any required O&M data) to convey the system and appurtenant easements to the City, the City will give preliminary acceptance to the project. At this time the facilities may be tied into the City system and service provided. For the first twelve (12) months thereafter (longer if agreed to by City and the Responsible Party), the Responsible Party will be responsible for all operation, maintenance, and repair costs. During that period, the City shall be notified when O&M and/or repairs will be performed on the facilities, and at the City's option it may elect to have an inspector present during such operations. Alternately, the Responsible Party may choose to hire the City to perform such services, if agreed by the City.

If during construction there have been concerns about the quality of construction related to water and/or sewer line installation and/or if the City's representative has been unable to observe parts of the construction, the City's representative may require that applicable parts of the relevant pipe lines be video-inspected. The Responsible Party shall arrange and pay for such video inspections should they be needed.

Before the end of the first year there shall be an inspection of the system which will include a physical, and possibly video, inspection, of the construction and review of the O&M records. The Responsible Party shall notify the City of when facilities are ready and schedule the inspection. Failure to notify the City will be reason to extend the inspection period. If, in the opinion of the City, the system is performing satisfactorily, the City will accept the facilities following proper assignment of all Responsible Party and vendor warranties on the Project, and assume maintenance of it. The City may elect to extend the period of Developer's maintenance beyond twelve (12) months until any ongoing problems are corrected. If the Developer fails to correct any problems within one (1) month of notification, the City may correct the problems and collect the costs it incurs from the Developer. Such costs, if not promptly paid, shall be a delinquent charge which may be assessed against the property being developed, in addition to any other rights and remedies the City may have.

### 23. SERVICE RATES

The City reserves the right to set rates for supplying services to a Development which are commensurate with the costs associated with providing the services. This means that, in some instances, it may be necessary to place a surcharge or to charge a higher rate to provide services to certain areas.

During the twelve-month period when the City is providing services, but before the one-year inspection, the City will charge users for the services and control all taps as provided in City Ordinances and Regulations.

The foregoing provisions may be modified by appropriate utility extension agreements.