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**CHAPTER 1**  
**GENERAL REQUIREMENTS**

**1.00.00**      **AUTHORITY AND PURPOSE**

**1.01.00**      **TITLE**

These regulations, together with all future amendments, shall be known as the CITY STANDARDS AND SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF PUBLIC IMPROVEMENTS, 2019 Edition, and may be cited as such and will be referred to herein as the STANDARDS AND SPECIFICATIONS.

**1.02.00**      **APPLICABILITY**

These STANDARDS AND SPECIFICATIONS shall apply to construction, enlargement, alteration, relocation, removal, conversion, demolition, repair, and excavation of any public improvements or private improvements of common ownership specifically regulated herein. The provision of these STANDARDS AND SPECIFICATIONS applies to CITY contracts as well as to 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 AND SPECIFICATIONS. Alterations, additions or repairs to existing improvements shall comply with all requirements of these STANDARDS AND SPECIFICATIONS unless specifically exempted, in writing, by the CITY ENGINEER. The CITY ENGINEER retains the right to require additional information, criteria, or requirements as conditions may warrant.

**1.03.00**      **AUTHORITY**

These STANDARDS AND SPECIFICATIONS have been enacted pursuant to Section 11-6-5 of the CITY CODE and Title 31 of Article 16 of the Colorado Revised Statutes and shall have the same force and effect as all other ordinances of the CITY.

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 ENGINEER is intended. Similarly, the words “approved”, “acceptable”, “satisfactory” shall refer to approval by the CITY ENGINEER.

**1.04.00**      **PURPOSE**

The purpose of these STANDARDS AND SPECIFICATIONS 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, streets, street lights, traffic control devices, trails, open space, parking lots, and appurtenances thereto.

The purpose of these STANDARDS AND SPECIFICATIONS is also to ensure 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 and quality 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 in a sustainable manner.

**1.05.00 CITY CAPITAL IMPROVEMENT PROJECTS**

It is recognized that the minimum requirements contained in these STANDARDS AND SPECIFICATIONS are not necessarily sufficient for plans, specifications, and contract administration purposes for CITY administered capital improvement projects. Accordingly, the CITY ENGINEER is authorized to develop and/or approve such additional requirements and procedures necessary for bidding, awarding, and administering for such projects, provided said additional requirements and procedures are substantially consistent with these STANDARDS AND SPECIFICATIONS and applicable provisions of other CITY ordinances and resolutions.

**1.06.00 INTERPRETATION**

In the interpretation of the provisions of these STANDARDS AND SPECIFICATIONS the following shall govern:

- (A) In its interpretation, the provisions of these STANDARDS AND SPECIFICATIONS 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.
- (B) Whenever a provision of these STANDARDS AND SPECIFICATIONS 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 are more stringent shall govern.
- (C) These STANDARDS AND SPECIFICATIONS 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 AND SPECIFICATIONS. However, if the review and approval of construction plans, specifications, and associated engineering reports by the CITY ENGINEER has occurred more than twelve (12) months prior to execution of the IMPROVEMENTS AGREEMENT/or commencement of construction activities, or if significant change has occurred in specifications or requirements, the CITY ENGINEER shall have the right to require another review process for the plans, specifications, and reports to insure compliance with these STANDARDS AND SPECIFICATIONS.
- (D) In case of a discrepancy in a requirement among different documents, the order of precedence is as follows:
  - (1) Project special provisions
  - (2) Construction drawings and details
  - (3) These STANDARDS AND SPECIFICATIONS
  - (4) Standard drawings

**1.07.00 ENFORCEMENT RESPONSIBILITY**

It shall be the duty of the CITY ENGINEER to enforce the provisions of these STANDARDS AND SPECIFICATIONS.

**1.08.00 VIOLATIONS**

No person, firm, or corporation shall construct, enlarge, alter, repair, relocate, 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 AND SPECIFICATIONS.

Whenever any work is being done contrary to the provisions of these STANDARDS AND SPECIFICATIONS, the CITY ENGINEER or their designee may order the work stopped by a written notice in accordance with Section 1.26.04 of these STANDARDS AND SPECIFICATIONS.

**1.09.00 VARIANCES**

The provisions of these STANDARDS AND SPECIFICATIONS 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 approved and its use authorized in writing by the CITY ENGINEER.

Whenever there are practical difficulties involved in carrying out the provisions of these procedures, the CITY ENGINEER may grant a variance for individual cases, provided that the CONTRACTOR or DEVELOPER provide evidence 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 variance does not lessen any design requirements or any degree of structural or operational integrity, and results in a level of safety, service, and quality equal to or greater than that intended by the application of the minimum requirements. The CITY ENGINEER shall require that sufficient specifications, evidence, justification, and/or proof be submitted to substantiate any claims that may be made regarding the alternate material, detail, or technique. The CITY ENGINEER, in their sole discretion, will decide upon the acceptability of any proposed variance.

**1.10.00 AMENDMENTS AND REVISIONS**

These STANDARDS AND SPECIFICATIONS may be amended as new technology is developed and/or if experience gained in the use of these STANDARDS AND SPECIFICATIONS indicate a need for revision. The CITY shall have full power and authority to promulgate rules, regulations, or new standards of a technical nature, which rules, regulations, or standards shall be effective immediately upon their approval and certification by the CITY ENGINEER. It is the responsibility of the Consultant/CONTRACTOR/DEVELOPER to obtain all revisions to these STANDARDS AND SPECIFICATIONS. The most recent version of these can be found at: <https://www.cityofwestminster.us/standardsandspecifications>

**1.11.00 SEVERABILITY**

If any section or article of these STANDARDS AND SPECIFICATIONS is found to be unconstitutional or illegal by any court, the said section or article shall have no bearing on the effectiveness of the rest of these STANDARDS AND SPECIFICATIONS.

## 1.12.00

### DEFINITIONS

ACCEPTANCE shall mean the formal approval of a work element by the CITY ENGINEER or CITY INSPECTOR that the work element has fulfilled contract or PUBLIC IMPROVEMENT AGREEMENT requirements. Acceptance may mean “into warranty” or “out of warranty” depending on the IMPROVEMENTS AGREEMENT and WORK.

ALLEY shall mean a narrow passageway, generally one lane, behind or between buildings for garage and service access.

BEST MANAGEMENT PRACTICE shall mean a technique, process, activity, or structure used to reduce pollutant discharges in stormwater. BMPs include source control practices (non-structural BMPs) and engineered structures designed to treat runoff.

BRIDGE shall mean a structure, including supports, erected over a depression or an obstruction, such as water, highway or railroad, and having a track or passageway for carrying traffic or other moving loads.

CITY shall mean the City of Westminster, in the State of Colorado, acting by and through the CITY MANAGER, Mayor, and CITY Council.

CITY CODE shall mean the current adopted Westminster Municipal Code.

CITY ENGINEER shall mean the CITY ENGINEER or authorized representative for the CITY.

CITY INSPECTOR shall mean the CITY ENGINEER’s authorized representative assigned to make detailed inspections of the WORK.

CITY MANAGER shall mean the CITY Manager or authorized representative for the CITY.

CLASS D PUBLIC WAY CONTRACTOR shall mean a CONTRACTOR holding a valid CITY Class D business license, pursuant to Section 5-5 of the CITY CODE, authorizing the CONTRACTOR to perform work affecting public property or grounds, utility systems (either CITY-owned or contracting with the CITY for service of any type) or work within any street right-of-way, utility easement, or other public property.

COMMUNITY DEVELOPMENT DIRECTOR shall mean the Director of the Community Development Department or authorized representative for the CITY.

CONSTRUCTION DRAWINGS shall mean approved final documents depicting the extents and type of work to be completed.

CONTRACTOR shall mean a person, company, firm, or corporation licensed and bonded in the CITY in accordance with the CITY CODE.

CULVERT shall mean a drainage structure that may or may not directly support traffic and that extends across and beneath a highway, street, driveway, alley, arterial, path or other public way.

DATE OF COMPLETION shall mean the date the work is required to be accepted into warranty.

DEVELOPER shall mean a person, company, firm, or corporation that is developing or seeking to develop a property, including, but not limited to, the design engineer, within the CITY.

DRAINAGE CRITERIA MANUAL shall mean the CITY Storm Drainage Design and Technical Criteria Manual, latest version.

EMERGENCY WORK shall mean work deemed necessary by the CITY 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 neglect, and an emergency arises and immediate action is considered necessary in order to protect private or public interests.

IMPROVEMENTS AGREEMENT shall mean the PUBLIC IMPROVEMENTS AGREEMENT and/or the LANDSCAPE AND PRIVATE IMPROVEMENTS AGREEMENT.

LAND DISTURBANCE AGREEMENT shall mean an agreement between the OWNER and the CITY that is required according to Section 8-11-5 of CITY CODE when land disturbance requires a Land Disturbance Permit and an IMPROVEMENTS AGREEMENT is not in place.

LANDSCAPE AND PRIVATE IMPROVEMENTS AGREEMENT shall mean the approved written contract between the OWNER and the CITY for construction of private improvements including all on-site and off-site landscaping required to be installed pursuant to the official development plan for the project, whether on private or public property, as well as all on-site amenities to be privately owned and maintained in areas of private or common ownership, including, but not limited to, sewer systems, water and sewer service lines to buildings, grading, drainage structures, retaining walls, parking lots, private streets and walks, fire lanes, driveways, fencing, screening, trash enclosures, trails, swimming pools, tennis courts, and community recreation facilities.

METHOD OF HANDLING TRAFFIC shall mean a plan submitted which shows the CONTRACTOR's proposed construction phasing and proposed traffic control devices. An MHT shall be submitted for each different phase of construction. Individual MHTs shall make up part of a project's TRAFFIC CONTROL PLAN. An MHT shall include as a minimum the following:

- A detailed diagram of all traffic control devices, including signs and flaggers.
- Length and time duration of all lane closures.
- An access maintenance plan for all properties requiring access during construction.
- Staging and storage areas.
- A plan for maintaining and controlling pedestrian, bicycle and other non-vehicular traffic.
- A plan for emergency vehicle access.

MS4 shall mean Municipal Separate Storm Sewer System, which is a publicly owned conveyance or system of conveyances that discharges to waters of the U.S. and is designed or used for collecting or conveying stormwater, is not a combined sewer, and is not part of a publicly owned treatment works (POTW). An MS4 may be subject to an MS4 Permit, a state or federal stormwater discharge permit to regulate discharges from MS4s for compliance with Clean Water Act regulations.

NOTICE TO PROCEED shall mean formal notice given by the CITY to a DEVELOPER, OWNER or CONTRACTOR that the work may proceed according to the contract or IMPROVEMENTS AGREEMENT.

OWNER shall mean a person, company, firm, or corporation holding title to land that is being developed or modified within the CITY.

PERMIT shall mean any applicable permits required to complete the WORK, including:

Land Disturbance Permit: As defined and required in Section 8-11-5 of CITY CODE.

Floodplain Development Permit: As defined and required in Section 11-8-13(I) of CITY CODE.

Right-of-Way Permit: As defined and required in Section 9-2-1 of CITY CODE.

Online Permit System: The electronic online system (ETRAKIT or successor) available on the CITY's public website which provides for the electronic application, viewing and tracking of permits and development proposals.

PLANS shall mean civil construction drawings, a development plan, capital improvement plan, or other final documents approved by the CITY ENGINEER, depicting the construction WORK to occur.

PRIVATE IMPROVEMENTS 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.

PUBLIC IMPROVEMENTS include: all work in the public right-of-way, easements dedicated to the CITY, , and projects or utilities that will become the CITY's responsibility to maintain.

PUBLIC IMPROVEMENTS AGREEMENT shall mean the approved written contract between the OWNER and the CITY for construction of public improvements including streets, curbs, gutters, culverts, drainage channels, utilities, traffic control devices, park facilities, and other features that will be owned and/or maintained by the CITY.

RELEASE FOR SERVICE shall mean the water and/or sanitary sewer utility has been installed, tested, and inspected by the CITY and is able to serve its intended users according to the PLANS. Release for Service does not mean the WORK has been accepted by the CITY, and is subject to inspection and the requirements of the IMPROVEMENTS AGREEMENT.

RIGHT-OF-WAY shall mean any street, alley, sidewalk, path, tree lawn or utility corridor in the CITY that is publically owned and/or is responsible for maintaining.

SHOP DRAWING shall mean drawings, diagrams, illustrations, samples, schedules, calculations, and other data which provide details of the construction of the work and details to be used by the CITY ENGINEER or Designee for inspection. Shop Drawings shall be prepared by the CONTRACTOR, SUBCONTRACTORS, manufacturers, suppliers, or distributors. Shop drawings are submitted to the CITY ENGINEER for formal review and returned to the CONTRACTOR. Shop drawings include data which illustrates material, equipment, and items which are incorporated in and become part of the permanent work.

STANDARDS AND SPECIFICATIONS shall be understood that reference is made to the CITY STANDARDS AND SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF PUBLIC IMPROVEMENTS, latest version.

STORMWATER MANAGEMENT PLAN shall mean a written plan identifying measures that will be implemented to minimize the discharge of pollutants in stormwater. Requirements for SWMPs are legally specified in CITY, state and federal discharge permits. Requirements vary depending on whether the discharge permit is associated with municipal, industrial, or construction activities.

SUBCONTRACTOR shall mean any person, company, firm, or corporation licensed and bonded in the CITY in accordance with the CITY CODE which has a direct or indirect contract with the



CONTRACTOR or other contractor and furnishes and/or performs on-site labor, and/or furnishes materials in connection with the performance of the WORK.

SUBMITTAL shall mean a sample and/or data provided to the CITY INSPECTOR for approval of a material or product the CONTRACTOR intends to use in construction.

SURETY shall mean the entity which is bound with and for the OWNER for the performance of the WORK as described in these STANDARDS AND SPECIFICATIONS.

TESTING AGENCY shall mean any individual, partnership, or corporation which is qualified and licensed to perform the required sampling, analysis, testing, and professional recommendation service.

TRAFFIC CONTROL PLAN shall mean the parts of the contract, IMPROVEMENTS AGREEMENTS or PERMIT that contain the requirements for the maintenance of traffic during construction.

TRAFFIC ENGINEER shall mean the Traffic Engineer or authorized representative of the CITY.

UNDERDRAIN shall mean a subsurface pipe, which may be perforated, intended to collect groundwater and convey it to a designated outlet.

WARRANTY shall mean the period following completion of the work that the OWNER or DEVELOPER is responsible for necessary repairs pursuant to Section 1.26.07 of these STANDARDS AND SPECIFICATIONS.

WATERS OF THE US shall mean all waters in which the U.S. Army Corps of Engineers have jurisdiction, are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide. Section 404 permit requirements apply.

WORK shall mean the furnishing of all labor, materials, equipment, and incidentals necessary to successfully complete the project according to all duties and obligations imposed by the contract, PERMIT or IMPROVEMENTS AGREEMENT.

WORKING DAYS shall be based on Westminster City Hall normal business hours.

## **1.13.00**

### **ABBREVIATIONS**

AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ADA	Americans with Disabilities Act
AISC	American Institute of Steel Construction
APM	Asphalt Paving Mixture
ANSI	American National Standards Institute
APWA	American Public Works Association
ASA	American Standards Association
ASCE	American Society of Civil Engineers
ASTM	American Society for Testing and Materials
ATSSA	American Traffic Safety Services Association
AWWA	American Water Works Association
AWG	American Wire Gauge, as defined in ASTM B 258
BMP	Best Management Practice

CBC	Concrete Box Culvert
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and Environment
CIP	Capital Improvement Project
CLOMR	Conditional Letter of Map Revision, for FEMA regulated floodplains
CMP	Corrugated Metal Pipe
CMPA	Corrugated Metal Pipe Arch
CRS	Colorado Revised Statutes
CRSI	Concrete Reinforcing Steel Institute
CUHP	Colorado Urban Hydrograph Procedure
CWCB	Colorado Water Conservation Board
DIP	Ductile Iron Pipe
DRCOG	Denver Regional Council of Governments
FDIC	Federal Deposit Insurance Corporation
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
HBP/HMA	Hot Bituminous Pavement / Hot Mix Asphalt
HDPE	High Density Polyethylene
HERCP	Horizontal Elliptical Reinforced Concrete Pipe
IMSA	International Municipal Signal Association
ITE	Institute of Transportation Engineers
LDA	Land Disturbance Agreement
LDP	Land Disturbance Permit
LED	Light Emitting Diode
LOMR	Letter of Map Revision, for FEMA regulated floodplains
LPPIA	Landscaping and Private Improvements Agreement
MGPEC	Metropolitan Government Pavement Engineers Council
MHT	Method of Handling Traffic
MS4	Municipal Separate Storm Sewer System
MUTCD	Manual on Uniform Traffic Control Devices
NEC	National Electric Code
NEMA	National Electric Manufacturers Association
NFIP	National Flood Insurance Program
NPDES	National Pollution Discharge Elimination System
NTP	Notice to Proceed
ODP	Official Development Plan
OSHA	Occupational Safety and Health Association
PACP	Pipeline Assessment Certification Program
PDP	Preliminary Development Plan
PIA	Public Improvements Agreement
POTW	Public Owned Treatment Works
PUD	Planned Unit Development
PVC	Polyvinyl Chloride
PWU	Public Works & Utilities
RAP	Reclaimed Asphalt Pavement
RCBC	Reinforced Concrete Box Culvert
RCP	Reinforced Concrete Pipe
ROW	Right-of-Way
SCS	Soil Conservation Service
SDDTCM	Storm Drainage Design and Technical Criteria Manual

SMA	Stone Matrix Asphalt
SPP	Structural Plate Pipe
SPPA	Structural Plate Pipe Arch
SWMP	Stormwater Management Plan
TCP	Traffic Control Plan
TMUND	Traditional Mixed Use Neighborhood Development
UDFCD	Urban Drainage and Flood Control District
UNCC	Utility Notification Center of Colorado
USACOE	United States Army Corps of Engineers
USDCM	Urban Storm Drainage Criteria Manual (MANUAL)
USGS	United States Geological Survey

**1.20.00      GENERAL CONDITIONS**

**1.21.00      RESPONSIBILITY FOR DESIGN AND CONSTRUCTION**

The CITY of Westminster shall have full authority to review and approve all submittals and construction for compliance with these STANDARDS AND SPECIFICATIONS. An approval or acceptance by the CITY does not relieve the OWNER, engineer, designer, or CONTRACTOR from responsibility for ensuring that the calculations, plans, specifications, construction, and record drawings are in compliance with these STANDARDS AND SPECIFICATIONS and applicable laws and regulations, including the Americans with Disabilities Act. The DEVELOPER shall design the work with regard to subsurface utilities in conformance with Senate Bill 18-167 and ASCE Standard 38.

Any approval or acceptance by the CITY shall not result in any liability to the CITY or its employees for any claim, suit, loss, damage, or injury resulting from the use or implementation of the approved documents. Nothing in these STANDARDS AND SPECIFICATIONS shall be construed to circumvent Section 11-6-5(B)3 of the CITY CODE pertaining to responsibility for reports, studies, designs, and construction.

**1.22.00      PRE-CONSTRUCTION MEETINGS**

In conjunction with the NTP for a development, the CITY INSPECTOR shall arrange a "pre-construction meeting" which shall be attended by the OWNER/DEVELOPER, all of the OWNER/DEVELOPER's CONTRACTORS, affected utility companies and the appropriate CITY ENGINEERS. This meeting shall be held before any construction-related activities can commence on said development, and its purpose is to introduce all of the "parties" involved in the development as well as establish guidelines that the CITY feels are appropriate for the development.

Prior to construction, the CONTRACTOR shall document existing public improvements adjacent to the work, including, but not limited to, sidewalks, driveways, utility appurtenances, drainage structures, traffic control devices and survey monuments. The CONTRACTOR shall provide videos or digital photographs of the existing public improvements prior to or at the pre-construction meeting. The CITY ENGINEER may also require post-construction documentation of the existing PUBLIC IMPROVEMENTS.

## **1.23.00**

### **WORK CONDITIONS**

#### **1.23.01 Emergency Work**

When, in the opinion of the CITY, the CONTRACTOR 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 CONTRACTOR or the DEVELOPER, may provide suitable protection by causing 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 CONTRACTOR or DEVELOPER and will be paid within 30 days of presentation of the bills. The CITY may also draw from the DEVELOPER's surety to cover any non-payment, including accrued interest and reasonable overhead costs. The performance or non-performance of such emergency work under the direction of the CITY will in no way relieve the CONTRACTOR of responsibility for damages which may occur during or after such precaution has been taken.

#### **1.23.02 Housekeeping**

The CONTRACTOR shall keep the work site in an orderly condition. Accumulation of trash, debris, etc. is not allowed. The CONTRACTOR shall clean the site as required by applicable provisions, including conditions in any IMPROVEMENTS AGREEMENTS or PERMIT.

#### **1.23.02 Final Clean-Up**

Upon completion of the work and prior to any inspection by the CITY INSPECTOR, the CONTRACTOR shall remove from the project area all surplus and discarded material, rubbish, and temporary structures and leave the project area in a neat and presentable condition. The CONTRACTOR shall restore all work which has been damaged by their operations to general conformity with the specifications for the item(s) involved. The CONTRACTOR shall inspect the interior of all manholes and catch basins within the construction limits for construction materials, dirt, stones, or other debris and remove same prior to any inspection by the CITY INSPECTOR.

## **1.24.00**

### **CONTROL OF WORK AND MATERIALS**

#### **1.24.01 Authority of City**

The CITY ENGINEER will have the authority to stop work whenever such stoppage may be deemed necessary. The CITY ENGINEER will resolve all questions which arise as to the quality and acceptability of materials furnished, work performed, interpretation of the plans and specifications, and acceptable fulfillment of the requirements of these STANDARDS AND SPECIFICATIONS.

CITY INSPECTORS are authorized to inspect all work and all material furnished at any time. 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 AND SPECIFICATIONS. They are authorized to call the attention of the CONTRACTOR to any failure of the work or materials to conform to

these STANDARDS AND SPECIFICATIONS. The CITY INSPECTOR will have the authority to reject materials until any questions at issue can be resolved by the CITY.

The CITY INSPECTOR will, in no case, act as foreman or perform other duties for the CONTRACTOR nor interfere with the management of the work done by the CONTRACTOR. Any "advice" or "opinion" which the inspector may give the CONTRACTOR will not be construed as binding upon the CITY ENGINEER or the CITY of Westminster in any way or release the CONTRACTOR from fulfilling all of the terms of these STANDARDS AND SPECIFICATIONS. The presence or absence of the inspector will not relieve, in any degree, the responsibility or the obligation of the CONTRACTOR, OWNER or DEVELOPER.

The CITY INSPECTOR will, at all times, have reasonable and safe access to the work as it progresses and the CONTRACTOR will provide proper facilities for such access and inspection. If the CITY INSPECTOR deems the site conditions unsafe to access, the CITY INSPECTOR has the right to refuse inspection until proper access is provided.

#### **1.24.02 Responsibilities of the CONTRACTOR**

In case of suspension of work for any cause, the CONTRACTOR, before leaving the job site, will take such precautions as may be necessary to prevent damage to the project, provide for public safety, protect utilities, allow normal drainage, and erect any necessary barricades, signs, or other facilities at their expense as directed by the CITY ENGINEER and/or CITY INSPECTOR and required by these STANDARDS AND SPECIFICATIONS. The CONTRACTOR is responsible for ensuring that all construction and construction activities and materials are in compliance with these STANDARDS AND SPECIFICATIONS. The CONTRACTOR shall be solely responsible for all construction means, methods, techniques, sequences, and procedures. The CONTRACTOR shall be responsible for the acts and omissions of their employees, subcontractors, and their agents and employees. The CONTRACTOR shall notify Colorado 811 and be solely responsible for locating all existing underground installations, including service connections, in advance of excavating. CITY utility maps are intended to be used for general information only, and the location of any utilities or property lines as shown on the utility maps are not necessarily accurate.

#### **1.24.03 Unauthorized and/or Unacceptable Work**

Work which does not conform to the approved construction PLANS and these STANDARDS AND SPECIFICATIONS and 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 replaced or otherwise satisfactorily corrected by and at the expense of the DEVELOPER or CONTRACTOR. This expense includes total and complete restoration of any disturbed land or surface to original or better condition that existed before the repairs or replacement.

#### **1.24.04 Samples and Tests**

To ascertain that materials and procedures comply with contract requirements, testing will be taken at the source or at the job destination at the discretion of the CITY ENGINEER and as often as the CITY ENGINEER deems it advisable or necessary. Taking of samples will be in accordance with standard practices except where methods and procedures for sampling materials are otherwise set forth in these STANDARDS AND SPECIFICATIONS.

The CONTRACTOR will furnish, without charge, all samples and test results required by the CITY ENGINEER and will afford such facilities as may be necessary for collecting and forwarding them. The CONTRACTOR may be required to furnish, when requested by the CITY ENGINEER, a written statement giving the origin, composition, and process of manufacture of a material.

Whenever any of the provisions of these STANDARDS AND SPECIFICATIONS or evidence that any material or construction does not conform to the requirements herein, the CITY ENGINEER may require that the CONTRACTOR have tests performed, at their expense, which will be used as proof of compliance. Test methods will be as referenced by these STANDARDS AND SPECIFICATIONS. If there are no recognized and accepted test methods for the proposed alternate, the CITY ENGINEER will determine the test procedures. All tests will be made by a testing agency approved by the CITY ENGINEER. Reports and results of such tests will be retained by the CITY ENGINEER.

#### **1.24.05 Storage of Materials**

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 will meet all requirements of these STANDARDS AND SPECIFICATIONS at the time they are used. Stored materials will be located so as to facilitate inspection. With the prior written approval of the CITY ENGINEER, portions of the right-of-way not required for public travel may be used for storage purposes and for the placing of the CONTRACTOR's plants and equipment, but any additional space required will be provided by the CONTRACTOR at their expense.

#### **1.24.06 Defective Materials**

Materials not in conformance with requirements of these STANDARDS AND SPECIFICATIONS will be considered defective and will be rejected. Rejected materials will be removed from the work site at the CONTRACTOR's expense, unless otherwise permitted by the CITY ENGINEER.

### **1.25.00 PROTECTION OF PUBLIC INTERESTS**

#### **1.25.01 Public Convenience and Safety**

Unless otherwise specified, the CONTRACTOR will give written notice, to the proper authorities in charge of streets; gas and water pipes; electric service, cable television, and other conduits; railroads; poles; manholes; catch basins; and all other property that may be affected by the CONTRACTOR's operations at least three (3) working days or based on authority's requirements prior to any construction. The CONTRACTOR will not hinder or interfere with any person in the protection of such property or with the operation of utilities at any time. The CONTRACTOR must obtain all necessary information in regard to existing utilities, protect such utilities from injury, and avoid unnecessary exposure so that they will not cause injury to the public.

The CONTRACTOR will obtain all necessary information concerning the planned installation of new utilities and cables, conduits and transformers, make proper provision and give proper

notification so that new utilities and appurtenances can be installed at the proper time and location to avoid unnecessary inconvenience to the OWNER or the public. New underground utilities and appurtenances will not be covered with pavement prior to the City's inspection of such facilities. When the work involves excavation adjacent to any building or wall along the work, the CONTRACTOR will give property owners due and sufficient written notice thereof, with a copy to the CITY ENGINEER.

### **1.25.02 Protection of Property and Monuments**

The DEVELOPER and CONTRACTOR will use every reasonable precaution to prevent the damage or destruction of public or private property such as, but not limited to, poles, trees, shrubbery, crops, fences, monuments and all overhead structures such as, but not limited to, wires or cables which are either within or outside of the right-of-way. The CONTRACTOR will protect and support all water, gas, sanitary sewer, storm sewer, electrical pipes, conduits, and all railway tracks, buildings, walls, fences, or other properties which are liable to be damaged during the execution of their work. The CONTRACTOR will take all reasonable and proper precautions to protect persons, animals and vehicles from injury or damage and, wherever necessary or as directed by the CITY ENGINEER and/or CITY INSPECTOR will erect and maintain fencing, traffic control devices or other protective measures. The CONTRACTOR will employ one or more watchmen as additional security whenever they are needed or required by the CITY ENGINEER. The CONTRACTOR will not prevent the flow of water in the gutters of the street and will use proper means to permit the flow of surface water along the gutters while the work is in progress.

The CONTRACTOR will protect and carefully preserve all land boundary and CITY survey control monuments until the OWNER's authorized registered land surveyor has referenced their location for replacement. All monuments disturbed or removed by the CONTRACTOR through negligence or carelessness on their part or on the part of their employees or subcontractors will be replaced by a land surveyor registered in the State of Colorado, at the CONTRACTOR's expense. The DEVELOPER and CONTRACTOR will be responsible for the repair of any damage or destruction of property resulting from neglect, misconduct, or omission in their manner or method of execution or non-execution of the work, defective work or the use of unsatisfactory materials. The CONTRACTOR 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 ENGINEER, or they will otherwise make amends for damage or destruction in a manner acceptable to the CITY ENGINEER. The DEVELOPER and CONTRACTOR will be responsible for the repair of underground pipes, wires, or conduits damaged by them or their SUBCONTRACTORS.

The OWNER and CONTRACTOR will be liable for all damage caused by storms and fire for the duration of the warranty period until the WORK is accepted.

### **1.25.03 Installation of Survey Monuments**

Permanent survey monuments, and lot pins shall be set at locations approved by the CITY ENGINEER; at all angle points; and at the beginning, end, and points of change of direction or change of radius of any curved boundary. In addition, 5/8-inch steel pins, or larger, shall be set at all lot corners. Affixed securely to the top of each monument shall be an aluminum cap marked with the Colorado registration number of the land surveyor responsible for the establishment of the monument.

The Professional Land Surveyor will assure that the monuments he establishes or re-establishes conform both in location and physical character with the specifications called for in Section 38-51-104, CRS. Each found monument verified in location shall be restored or rehabilitated as necessary so as to have it readily identifiable and reasonably durable.

#### **1.25.04 Explosives**

When blasting is permitted and approved in writing by the CITY ENGINEER, the DEVELOPER and CONTRACTOR will use the utmost care to protect life and property. Signals warning persons of danger will be given before any blast. Excessive blasting or overshooting will not be permitted. The CITY ENGINEER will have authority to order any method of blasting discontinued which leads to overshooting, is dangerous to the public, or destructive to property, environment or natural features.

Before any blasting will be done by the CONTRACTOR, a certificate of insurance indicating special blasting coverage in the following minimum amounts will be filed with the CITY ENGINEER:

Property Damage, each accident	\$1,000,000
Public Liability, bodily Injury single limit or equivalent, each accident	\$1,000,000

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

The CITY ENGINEER 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 DEVELOPER and CONTRACTOR.

#### **1.25.05 Protection of Streams, Lakes, and Reservoirs**

The DEVELOPER and CONTRACTOR 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 siltation of streams, lakes, and reservoirs. A stormwater management plan for erosion protection shall be submitted and approved by the CITY ENGINEER. All required erosion control measures shall be in place before starting work. All work must conform to all applicable local, state, and federal regulations including, but not limited to, MS4.

### **1.26.00 WORK IN PUBLIC RIGHT-OF-WAY**

#### **1.26.01 Right-of-Way Permit**

It shall be unlawful for any person to perform work within CITY RIGHT-OF-WAY without first obtaining permission from the CITY. If the work to be performed involves a CITY utility in CDOT right-of-way, both a Right-of-Way Permit from the CITY and the appropriate permit from CDOT shall be required. An application for work done under a Right-of-Way Permit shall be submitted for each job to the CITY utilizing the Online Permit System provided by the CITY. The application shall be submitted a minimum of three (3) working days prior to the



planned start of work to allow for review and approval by the CITY ENGINEER and meet the minimum notification requirements contained within Section 1.25.01. Permittees may be required to increase this time up to ten (10) working days. An application form (when approved) shall constitute a valid PERMIT. Incomplete permit applications will not be reviewed or processed by the CITY. The CONTRACTOR shall provide notice to the CITY forty-eight (48) hours prior to the commencement of the WORK.

The CITY ENGINEER may require submittal of PLANS and specifications. No work shall commence until the CITY ENGINEER has approved the PLANS and specifications and/or permit application, except in emergency conditions. A permit application shall be required for emergency conditions within seventy-two (72) hours after the performance of the work and all conditions of a Right-of-Way Permit shall apply.

#### **1.26.02 Issuance of CONTRACTOR's License Prior to Permit**

The CITY ENGINEER may grant permits to work in, construct, or excavate within the public right-of-way or to close traffic lanes or work in connection with a CITY utility system to any CLASS D PUBLIC WAY CONTRACTOR filing an application as herein provided, which application shall pertain to work which shall comply with the requirements of this chapter. All permits shall be issued according to the provisions of Section 9-2-1 of the CITY CODE for CLASS D PUBLIC WAY CONTRACTORS.

#### **1.26.03 Liability for Damage**

Any person who shall undertake work pursuant to a permit issued under the provisions of this chapter, shall be answerable for any damage or injury to persons, animals, or public or private property as a result of any circumstances of such work. Prior to any excavation within the RIGHT-OF-WAY, the CONTRACTOR shall contact Colorado 811 and comply with their regulations as required by Senate Bill 18-167, and any other affected utilities within the vicinity of the WORK.

#### **1.26.04 Application**

Application for a permit to work in the public right-of-way shall be made utilizing the Online Permit System for the CITY.

Applicants shall pay a fee to the CITY before issuance of such permit. The amount of that fee shall be established by the CITY.

#### **1.26.05 Exhibition of Permit**

All required permits shall be kept at the site of the excavation while the work is in progress and shall be exhibited upon request to the CITY INSPECTOR. Failure to comply with this provision shall be grounds for a revocation of the permit and the issuance of a stop work order.

#### **1.26.06 Guarantee**

The permittee, by acceptance of the permit, expressly guarantees complete performance of the work therein described and guarantees all work done by them for a period of one year after the date of completion, or other period as required by the applicable permit or agreement. The

permittee agrees upon demand to maintain and to make all necessary repairs during the warranty/maintenance period, and to hold harmless the CITY for any and all claims arising from such work. This guarantee shall include all repairs and actions needed as a result of:

- (A) Defects in workmanship or materials
- (B) Settling of fills or excavations
- (C) Failures caused by unknown reasons
- (D) Any unauthorized deviations from the approved PLANS and specifications
- (E) Failure to barricade
- (F) Failure to clean up during and after performance of work
- (G) Failure of pavement patches
- (H) Any other violation of these STANDARDS AND SPECIFICATIONS.

If repairs are required during the subsequent warranty period, those repairs need only be guaranteed until the end of the initial period starting with the date of initial completion. However, in the event the CITY ENGINEER deems that the repairs are severe enough to constitute a reconstruction it may require that a new guarantee be provided for subsequent repairs after the completion of the reconstruction.

The permittee shall be responsible for providing materials and construction methods complying with these STANDARDS AND SPECIFICATIONS. If the permittee defaults in completion or conformance with these STANDARDS AND SPECIFICATIONS, the CITY ENGINEER shall submit a letter to the permittee describing the default or non-conformance at least 10 days prior to authorizing CITY personnel to perform suitable repairs and reconstruction. The CITY ENGINEER shall be authorized to remove and replace non-conforming work and/or materials to a reasonable distance beyond the limits of the non-conforming work as required to produce a suitable repair. The permittee shall be responsible for all costs incurred by the CITY to accomplish the WORK in a safe and timely manner.

#### **1.26.07 Performance**

(A) **Inspection.**

There shall be a minimum of two inspections for each permit. The first shall occur upon notification by the CONTRACTOR that the work is ready for inspection and the second inspection will be made 30 days prior to the expiration of the warranty period. At any time prior to completion of the warranty period, the CITY ENGINEER may notify the permittee of any needed repairs. Such repairs shall be completed within 24 hours if the defects are determined by the CITY ENGINEER to be an imminent danger to the public health, safety, and welfare. Non-emergency repairs shall be completed within 10 days after notice.

(B) **Barricading and Traffic Control.**

1. All work within a traveled public roadway area shall be protected at all times by safety devices as prescribed by the MUTCD and in such manner as to minimize the disruption of the flow of traffic in the vicinity of the work. Traffic must be provided a minimum lane width of 10 feet in the construction area. Any plan for traffic control during construction must be approved by the Traffic Engineer prior to issuance of permit. Plans that indicate complete closures must show detour routes and must be approved by the Traffic Engineer at least one week prior to the issuance of the permit. The CITY reserves the right to require longer lead times if it deems necessary.
2. All work within the roadway shall take place between 8:30 a.m. and 3:30 p.m. unless otherwise stipulated on the PERMIT.
3. Street excavations must be backfilled or otherwise covered as allowed by the CITY ENGINEER prior to leaving the site at the end of the work day, even if the work has not been completed.
4. No person shall dig or cause to be dug any hole, drain, ditch, or any other excavation in any street, alley, sidewalk, or other public place within the CITY without providing sufficient amber lights to be placed with a suitable barricade or temporary fence around such hole, drain, or other excavation in order to prevent persons, animals, and vehicles from sustaining injury. During the daytime the barricades shall be maintained but warning lights are not required. All barricades and lights shall be left in place until a permanent patch or temporary cold-mix patch can be made to the excavation.

(C) **Removal of Safety Devices or Barricades.**

No person shall damage, displace, remove, or interfere with any barricade warning light or any other safety device which is lawfully placed around or about any street, alley, sidewalk, or other excavations or construction work in the CITY.

**1.27.00 OTHER PERMITS**

This section discusses only those PERMITS and IMPROVEMENT AGREEMENTS which may be required by the CITY as part of the construction of the PUBLIC IMPROVEMENTS or PRIVATE IMPROVEMENTS in areas of common ownership (for example; landscaping, parking lots, etc.). It does not address other CITY PERMITS (for example; building permits, tap permits, floodplain development, etc.) or permits which may be required by other government entities (for example; CDOT, FEMA, EPA, etc.).

**1.27.01 Land Disturbance Permit**

The fee for this permit shall be as established by CITY CODE. This permit is required in accordance to CITY CODE 8-11-5. It should be noted that the CITY is under no obligation to issue a land disturbance permit prior to the execution of the public improvements agreement. However, if the CITY has approved the Official Development Plan, completed at least one review of the construction drawing package, and believes that the necessary revisions to that package are minor and that the review process is progressing in an acceptable manner, the

CITY may issue a land disturbance permit for grading operations and erosion control. In addition, the OWNER will be required to sign a LAND DISTURBANCE AGREEMENT and provide sufficient surety for temporary and permanent BMPs. Prior to the issuance of a land disturbance permit, all provisions of Section 1.28.02 of these STANDARDS AND SPECIFICATIONS shall be complied with.

#### **1.27.02 Temporary Water Service**

All water used in the CITY of Westminstercity for construction purposes is to be metered and charged to the user. The application for temporary water service shall be made at the CITY's Utility Division. The application and fee for each temporary meter shall be in accordance with title 8-7-11 of the CITY CODE. A deposit must be made to the CITY when the application is made. The deposit will be refunded to the applicant, less water usage charges and any consequential damages to the CITY provided equipment, once certification of water usage has been made. In such cases where water usage charges and equipment damages exceed the deposited amount, additional charges will be billed to the applicant. Water usage rates are established by 8-7-7, Water Rate Schedule, Multiple Units, Commercial and Public of the CITY CODE. In the event a water metering device cannot be provided to the applicant by the CITY, other means will be established by the CITY to estimate water usage.

#### **1.28.00 SUSPENSION OR REVOCATION OF PERMITS -- STOP WORK ORDER**

Any PERMIT may be revoked or suspended by the CITY and a stop work order may be issued after notice to the permittee for:

- (A) Violations of any condition of the Public Improvements Agreement, or of the approved construction drawings or specifications; or
- (B) Violation of any provision of these STANDARDS AND SPECIFICATIONS; or
- (C) Violation of any other ordinance of the CITY CODE, state law, or federal law pertaining to the work; or
- (D) 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.

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 CODE.

Upon receipt of a stop work order, the CONTRACTOR 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 ENGINEER and/or CITY.

## 1.29.00

## IMPROVEMENTS AGREEMENT

### 1.29.01 Requirements

- (A) Two improvement agreements are required: One addressing “PUBLIC IMPROVEMENTS” and one addressing “PRIVATE IMPROVEMENTS”. These agreements specify the nature of all public and/or private improvements, the time frame for construction and, in standard format, identifies the obligations of the DEVELOPER/OWNER and the City of Westminster. This contract binds the owners of property being developed and any successors, assignees with interest to that property.
- (B) A Land Disturbance Agreement is required according to 8-11-5 of the CITY CODE when a Land Disturbance Permit is required but the DEVELOPER/OWNER do not enter into a Public or Private Development Agreement with the CITY. The agreement will include a financial guarantee for completion of the land disturbance activities and be completed on the CITY standard template.
- (C) The improvements agreement is a mandatory part of the development process and must be executed before construction activities can commence and before a final plat can be recorded. The agreement will be prepared by the City of Westminster with the information provided by the DEVELOPER/OWNER after the final construction package has been approved and will be forwarded to the DEVELOPER/OWNER for their signatures.
- (D) All improvement agreements shall be completed on the CITY’s standard templates. The templates shall be obtained from the CITY.

### 1.29.02 Surety

The IMPROVEMENTS AGREEMENTS cannot be executed nor the final plat executed and recorded until good and sufficient surety is provided by the OWNER/DEVELOPER to the CITY. The surety represents 115 percent of the total estimated cost of all public improvements and private improvements in areas of common ownership with respect to a specific project. Two separate sureties are required, one for public improvements and one for private improvements.

#### (A) **Types of Surety.**

There are four types of surety that the CITY will accept:

1. A letter of credit from an FDIC-insured financial institution in the state of Colorado acceptable to the CITY that guarantees the monies stated in the letter of credit on the standard CITY template.
2. Performance bonds on the standard CITY template.
3. Cash

4. A plat restriction (with approval of the CITY ENGINEER for single-family detached residential developments only).

(B) **Reduction of Surety.**

A request for reduction in surety must be made in writing to the CITY and must include an itemized cost breakdown in the same format as that included in the exhibit of the improvements agreement. Requests for reduction may only be made a maximum of two times through the duration of a project from NTP through warranty.

- One 50% reduction may be allowed once at least half of the project has been completed at the CITY's discretion.
- A second reduction may be allowed once the project has been accepted into the warranty period with a minimum of 15% of the total cost of the improvements retained.

Only after the CITY has responded in writing approving such a reduction can the reduction be made. At no time shall the amount of surety retained by the CITY be less than 15% of the total cost of the improvements.

**1.30.00 CONSTRUCTION DRAWING SUBMITTAL REQUIREMENTS**

Construction drawings shall contain the information and be in the format outlined in the development plan templates available from the CITY's Development Review website.

**1.31.00 CONSTRUCTION MATERIAL SUBMITTAL REQUIREMENTS**

**1.31.01 General**

The CONTRACTOR shall deliver shop drawings, working drawings, product data, certificates of compliance and other information to the CITY ENGINEER required by the contract, construction drawings, improvements agreement, permit and/or these STANDARDS AND SPECIFICATIONS. The CONTRACTOR shall notify the CITY ENGINEER at the time of submittal of any information submitted that deviates from requirements.

The following sections summarize material submittal requirements by chapter of these STANDARDS AND SPECIFICATIONS. The lists may not be all inclusive. The CONTRACTOR shall provide all submittals required by the contract, construction drawings, improvements agreement, permit and/or these STANDARDS AND SPECIFICATIONS, including those not listed below.

**1.32.02 Submittals for Chapter 2 – Earthwork, Erosion Control and Revegetation**

<b>ITEM</b>	<b>SPECIFICATIONS SECTION</b>
Erosion and Sediment Control Plan	2.11.01
Seeding	2.23.00
Soil Amendments, Fertilizers and Compost	2.23.00
Topsoil	2.24.00

**1.32.03 Submittals for Chapter 3 – Water System**

<b>ITEM</b>	<b>SPECIFICATIONS SECTION</b>
Bedding Material	3.32.00
Bell Restraints	3.66.02
Blow-Off Materials	3.56.00
Bolts	Various
Casing Pipe	3.18.01
Casing Spacers	
Cathodic Protection Materials	3.62.00
Cathodic Protection Test Boxes	3.62.07
Combination Air Valves	3.65.00
Compression Couplings	3.60.07
Concrete	3.35.00
Concrete Block Supports	3.34.00
Copper	3.60.01
Corporation Stops	3.60.05
Curb Stops and Boxes	3.60.03
End Seals/Clamps	
Exterior Joint Tape	
Eye Bolts and Nuts	
Fire Hydrants	3.55.00
Fittings	3.53.00
Flowable Fill	
Grade Rings	3.57.02
Insulation Foam	3.61.03
Locator Tape	3.33.02
Manholes/Vaults	3.57.00
Meters (contact meter shop)	3.63.00
Meter Check Valves	3.63.06

Meter Pits/Lids	3.63.10
Meter Setters	3.63.08
Pipe Material	3.52.00
Pipe Lube	
Plastic Wrap	3.61.02
Ram-Nek	
Repair Clamps	3.69.00
Restraint Systems	3.66.00
Ring and Covers	3.57.02
Steps	3.57.01
Stop and Waste Materials	3.60.06
Tapping Saddles	3.60.02
Tapping Sleeves	3.60.04
Tracer Wire	3.33.02
Valves	3.54.00
Valve Boxes	3.54.04
Valve Extensions and Supports	3.54.01
Valve Supports	3.63.09
Vault Vents	3.59.00
Wax Seals	3.33.02
Wire Splice Kits	3.62.04
Zinc Caps	3.33.02

**1.32.04 Submittals for Chapter 4 – Sanitary Sewer System**

<b>ITEM</b>	<b>SPECIFICATIONS SECTION</b>
Bedding Material	4.32.00
Casing Pipe	4.33.03
Clean-out Materials	4.37.00
Concrete	4.55.01
End Seals	4.33.03
Exterior Coating	4.55.07
Exterior Joint Tape	4.55.04
Fittings	4.54.01
Flowable Fill	4.15.00
Gasketed Boots	4.38.00
Grade Rings	4.34.05
Grout	4.34.04
Interior Coating	4.55.06
Locator Tape	4.22.03



Manholes	4.55.00
Manhole Gaskets/Ram-Nek	4.55.04
Manhole Bases	4.55.03
Pipe Material	4.54.01
Ring and Cover	4.55.02
Spacers/Runners	4.33.03
Steps	4.55.01

**1.32.05 Submittals for Chapter 5 – Storm Sewer System**

<b>ITEM</b>	<b>SPECIFICATIONS SECTION</b>
Bedding Material	5.22.00
Cast-in-Place Concrete	5.24.00
Exterior Coatings	
Exterior Joint Tape	5.24.03
Flowable Fill	
Gasket Materials	5.34.01
Grade Rings	5.24.06
Grates	5.24.04
Grout	5.24.05
Infiltration/Bioretenion Materials	
Inlets	5.24.04
Manholes	5.24.04
Orifice Plates	
Pipe Material	5.34.01
Precast Bases	5.24.02
Ram-Nek	5.35.04
Reinforcement	5.24.01
Ring and Cover	5.35.02
Steps	5.35.01
Trash Racks	

**1.32.06 Submittals for Chapter 6 – Roadway**

<b>ITEM</b>	<b>SPECIFICATIONS SECTION</b>
Aggregate Base Course	6.71.00
Anti-Strip Additives	6.72.02
Asphalt Binder	6.72.02
Asphalt Pavement Aggregate	6.72.02
Asphalt Pavement Mix Design	6.72.03

Crusher Fines Material	6.76.01
Detectable Warning Tiles	6.75.03
Herbicide Treatment	6.76.02
Hydrated Lime	6.72.02
Mineral Filler	6.72.02
Pavement Design	6.35.00
Prime Coat and Tack Coat Materials	6.72.05
Reclaimed Asphalt Pavement	6.72.02
Sidewalk Chase Materials	6.15.03
Structure Backfill	6.74.00
Subgrade Chemical Treatment Material	6.44.03
Subgrade Mechanical Treatment Material	6.44.04

**1.32.07 Submittals for Chapter 7 – Concrete**

<b>ITEM</b>	<b>SPECIFICATIONS SECTION</b>
Admixtures	7.32.04
Cement	7.32.01
Concrete Aggregate	7.32.02
Concrete Joint Materials	7.36.00
Concrete Mix Design	7.31.00
Curing Materials	7.34.00
Fly Ash	7.32.05
Reinforcement	7.33.00
Strength Histories	
Water for Concrete	7.32.03

**1.32.08 Submittals for Chapter 8 – Traffic**

<b>ITEM</b>	<b>SPECIFICATIONS SECTION</b>
Conduit	8.26.02
Conductor and Cable	8.32.01
Controller	8.38.00
Controller Cabinet	8.37.00
Emergency Vehicle Detectors	8.34.00
Illuminated Street Name Signs	8.42.01
Interconnect Cable	8.32.02
Loop Lead-In Cable	8.32.05

Loop Wire	8.32.03
Pedestal Pole	8.39.01
Pedestrian Push Buttons	8.35.00
Pedestrian Push Button Cable	8.32.04
Pull Boxes	8.26.03
Optical Detector Lead-In Cable	8.32.07
Sign Posts	8.41.02
Signal Heads	8.31.00
Signal Head Mounting Hardware	8.39.01
Signal Poles	8.36.01
Vehicle Detectors	8.33.00

**1.32.09 Submittals for Chapter 9 – Trenching, Backfilling and Compacting**

<b>ITEM</b>	<b>SPECIFICATIONS SECTION</b>
Bedding Material	9.22.00
Flowable Fill	9.24.00
Stabilization Material	9.21.00
Structure Backfill	9.23.00

**1.32.10 Submittals for Chapter 10 – Street Lighting**

<b>ITEM</b>	<b>SPECIFICATIONS SECTION</b>
Adaptive Control System	10.50.03
Breakaway Connectors	10.48.00
Cabinets	10.50.02
Cable	10.47.00
Circuit Breakers	10.50.05
Concrete	10.43.03
Conduit	10.45.00
Contactors, Relays and Terminal Blocks	10.50.04
Flowable Fill	10.43.02
Lightning Arrestors	10.50.06
Luminaires	10.44.00
Power Supply	10.50.01
Pull Boxes	10.46.00
Splice Kits	10.49.00
Street Light Poles & Luminaire Arms	10.42.00