# Chapter 13 - Public Infrastructure Acceptance Procedures and Warranty Requirements

#### 13.1 General Policies

Before the City of Castle Pines (City) assumes ownership and maintenance responsibility for newly constructed public improvements, the Construction Plans shall be formally accepted by the City Public Works Department. The Owner, Developer, or Contractor is responsible for the proper installation of all improvements. The requirements contained herein apply to all new development and redevelopment, and all other work affecting rights-of-way that are planned for public use within the jurisdiction of the City of Castle Pines. The City will maintain roads, drainage improvements, signage, pavement markings, and other public improvements formally accepted and included in the relevant Development or Construction Agreement.

Partial acceptance is not permitted unless phasing is preapproved; each phase must be clearly identified in the Construction Plans and secured by a separate surety.

To enforce these requirements, the City may issue Stop Work Orders. If violations persist, the City may pursue legal action, including seeking a District Court injunction or damages for harm to rights-of-way intended for public use.

For all related public improvements, such as roads, sidewalks, and drainage infrastructure, the Owner or Developer is responsible for all initial capital costs and for all operations and maintenance throughout the warranty period.

#### 13.1.1 Acceptance Criteria

All public and private improvements shall be constructed in conformance with the approved Construction Plans, the Official Development Plan (if applicable), the Improvement Agreement (if applicable), and these Roadway Standards. The City Public Works Department shall be the final authority in determining defects and required corrections to public and private improvements. Failure by the City's representatives to detect improper installations or defects during the construction of improvements does not relieve the Owner, Developer, or Contractor of the responsibility to correct such defects later.

#### 13.1.2 Inspection Criteria

Chapter 12, Inspection and Testing Procedures, of these Roadway Standards details the required inspection and testing for public improvement infrastructure. At the time of both Initial and Final Acceptance, a comprehensive inspection of all roadway, stormwater, and related construction improvements shall be conducted. Inspection items include, but are not limited to, asphalt, concrete, construction materials, utility and drainage infrastructure, signage, traffic signals, lighting, and pavement markings.

Any element found to be nonconforming to the City Standards or opinion will be rejected and must be fully reconstructed. Grounds for rejection include, but are not limited to, breakage, cracking, spalling, scaling, ponding, surface distress, improper grading or crowning, utility misalignment or incorrect elevations, subsurface settlement, and inadequate drainage. All public infrastructure must satisfy the City's safety requirements and concerns and comply with all applicable standards and specifications.

Where asphalt pavement is a portion of a public improvement, the entire length of the roadway or asphalt section constructed or improved upon must be milled and overlaid at a uniform depth of two inches in all driving lanes. This process is required to obtain Final Acceptance for all planned development or redevelopment before requesting full-term maintenance from the City.

If no asphalt damage is caused by construction activities, including, but not limited to, material dumping, heavy equipment operation, dumpster placement, or material storage that results in staining, cracking, potholing, chipping, rutting, raveling, swelling, or settlement, the City, at its sole discretion, reserves the right to waive the resurfacing requirement.

#### 13.2 Initial Acceptance

Roadways and public improvements should not be opened to the public until permanent traffic control devices are installed. Before the City accepts a new roadway, all improvements shall be constructed according to the approved plans. The City Public Works Department shall be the final authority in determining defects and required corrections to public and private improvements.

#### 13.2.1 Initial Acceptance Walkthrough Inspection Request

The Owner, Developer, or Contractor must notify the City Public Works Department once all public infrastructure for the project has been completed. At that time, a walkthrough inspection may be scheduled. If the project or improvements are not fully completed, the City will reject the inspection request.

The Developer and Contractors are encouraged to attend the inspection with the City's representative. Inspections may be postponed because of excessive dirt or snow on the streets, poor weather, inaccessibility, or other conditions that prevent proper evaluation.

The first walkthrough inspection is provided at no cost. Any additional or rescheduled inspections will be charged according to the current City Fee Schedule.

#### 13.2.2 Punch List Submittal

Any deviations identified during the walkthrough will be documented in a corrections list (punch list). The Owner or their designee is responsible for preparing the punch list, along with a map showing the locations of all deficiencies.

The Owner or Developer must submit this punch list to the City for approval before permits will be issued for the work.

#### 13.2.3 Permits

The Owner, Developer, or their designee must obtain all necessary right-of-way permits before beginning any punch list repairs. The initial permit will be issued at no cost and will be valid for 60 calendar days. If the punch list items are not completed within that timeframe, additional permits must be obtained and paid for in accordance with the current City Fee Schedule.

#### 13.2.4 Executed Punch List

All punch list items must be corrected within 60 days of the walkthrough. If the deficiencies are not fully addressed within this period, the City will conduct a reinspection, and any new defects identified may be added to the list. Construction Plans will not be accepted until all noted deficiencies are resolved within the required timeframe.

The City Public Works Department must be notified both before the start of corrective work and immediately upon its completion. If additional inspections or walkthroughs are required, the Developer will be responsible for covering the associated costs.

#### 13.2.5 Independent Test Verification

The Initial Acceptance request must include independent test verification prepared by a registered Professional Engineer (PE) in the State of Colorado. This verification may consist of destructive or nondestructive testing, with test types and frequencies meeting all City requirements and requests.

A written evaluation report must accompany the request, demonstrating compliance with the approved Construction Drawings and these Specifications. The report must include test frequencies, test results, and an analysis confirming that the roadway structure is expected to have a typical service life, assuming the City performs standard surface maintenance.

The City may require the Owner or their designee to plot all soil, concrete, and asphalt test locations on the City-approved construction drawings.

The City is not responsible for reviewing test frequencies or confirming compliance with standards before granting acceptance.

#### 13.2.6 Record Drawings

Record Drawings (as-builts) shall accompany the request for Initial Acceptance and consist of electronically marked-up City-approved construction drawings. The Owner or Developer is responsible for fulfilling the engineering review and survey requirements.

The submitted as-built drawings must include a registered Colorado PE's signed and stamped certification note on every page.

A Registered Colorado Professional Land Surveyor certification should be on the first page of the submitted as-builts.

The submittal shall include electronic record information of all public infrastructure, including, but not limited to, elevations of roadways, gutters, crosspans, pipes, manholes, inlets, riprap pads, headwalls, and all storm drainage infrastructure shown on the City-approved plans. Improvements shown on the construction drawings for areas outside of public rights-of-way are also required.

A land surveyor registered in the State of Colorado shall affirm the as-built detention pond volumes and surface areas at the design depths, outlet structure sizes and elevations, storm drainage sizes and invert elevations at inlets, manholes, discharge locations, representative open-channel cross-sections, and dimensions of all drainage structures. Roadway grades shall be considered part of the storm drainage system. Storm detention and permanent storm water quality Control Measures facilities must be certified after implementing final landscaping stabilization. This certification is required before a certificate of occupancy will be issued for any development or redevelopment, or before any acceptance of any public

improvement project. The detention pond and all permanent storm water quality Control Measures and facilities must be built according to the approved plans and specifications. The completed facilities shall meet the required detention volume and design specifications. The surveyed elevations of critical design components, including roadway slopes, inverts, outlet structures, overflow spillways or weirs, and freeboard, reflect the final constructed values; the finished pond depths, storage volumes, and release rates are in substantial conformance with the approved design; and actual release rates conform to applicable regulatory agency rules and regulations outlined in Colorado Revised Statutes. Extended detention basins used as temporary sedimentation basins through a phased construction development shall also be required to have the detention facilities recertified before each phase of the development's final certificate of occupancy.

Design Engineer and Surveyor statements of compliance with the Record Drawings are required on the cover sheet as follows:

- 1) Registered Colorado Professional Engineer: The responsible PE for the project shall state the following: "Based upon review of, and reliance on, the field survey data and other pertinent data provided by (Name of Firm(s) or Surveyor), on (Date), and a final site investigation conducted on (Date), I hereby state that to the best of my knowledge, information, and belief, it is my professional opinion that the facilities shown in these drawings were constructed in substantial compliance with the accepted Drainage Report and/or Construction Drawings and the Engineer's intent. This statement is based only on a review of the field survey data and a final site investigation."
- 2) Registered Colorado Professional Land Surveyor: A registered land surveyor in the State of Colorado shall certify the record of permanent stormwater facilities volumes at the design depths, outlet structure sizes and elevations, storm sewer sizes and invert elevations at inlets, manholes and discharge locations, representative open-channel cross-sections, and dimensions of all the drainage structures. The surveyor shall also state the following: "A Record Drawing field survey was conducted by (Surveyor), on (Dates). All items noted on these drawings with an "RD" indicate Record Drawing information based on said survey. Unless explicitly marked with an "RD," constructed condition should not be assumed. I, (Surveyor), hereby state that in my professional opinion, the Record Drawing information shown on these plans accurately represents the improvements constructed."

#### Record Drawings shall show the following information:

- Record Drawings for roadways shall verify centerline and flowline location and elevation at high
  points, low points, vertical grade breaks and curves, all points of horizontal curvature, curb returns,
  surface utilities and structures, right-of-way monuments, and curb ramp locations.
- Record Drawings for storm sewers shall verify the size and elevation of all pipes (including pipe class), inlets, riprap, headwalls, and all other storm drainage infrastructure shown on the accepted plans, including those improvements located in areas outside of public rights-of-way.
- Record Drawings for open channels shall verify all drainageway grades and channel shape, horizontal
  and vertical information for grade control structures and stabilization measures, storm sewer outfalls,
  and maintenance access.
- Record Drawings for permanent storm water facilities shall verify horizontal and vertical information
  of all facilities, including locations of low-flow or trickle channels, outlet structure, emergency
  overflow spillway, pipe or channel inlets, water surface limits, and maintenance access.
- Record Drawings for signage and striping plan sheets shall verify the type, size, and location of all signage and striping shown on the accepted plans.
- Record Drawings for Traffic Signal Plan sheets shall verify the type, size, and location of all traffic signal devices shown on the accepted plans.

- Record Drawings for Landscape Plan sheets shall verify locations of trees, monuments, planters, drainage improvements, and trench drains shown on the accepted plans.
- Record Drawings shall verify other information as specifically requested by the City Public Works
   Department and as identified in the accepted plans.

#### 13.2.7 Documentation of Approved Variances

If the Applicant's engineer cannot verify substantial compliance with the accepted Construction Plans, a list of changes or exceptions to the plans shall be provided for consideration for acceptance by the City Public Works Department. These must be documented by submitting Record Drawings with the list of changes or exceptions.

#### 13.2.8 Profilograph

The acceptance request shall include a profilograph or a proposed similar smoothness profile measurement of all arterial and collector roadways constructed with the project. Smoothness profiles on local streets may be requested by the City on a case-by-case basis. Profilograph tests shall be made for each driving lane.

#### 13.2.9 Storm Drainage Video Inspection

The Owner, Developer, or Contractor is responsible for video inspection of all stormwater pipes before Initial Acceptance by the City to confirm they are free of sediment, debris, damage, or defects. A summary of this survey should be provided to the City as part of the Record Drawing package. This video survey may be requested by the City Public Works Department for review.

#### 13.2.10 Initial Acceptance Security

Upon written notification of Initial Acceptance, the collateral for public improvements may be reduced to the percentage outlined in the Development Agreement or other pertinent contract.

#### 13.3 Warranty

All public improvements shall be subject to a warranty period of at least 2 years after the signature date on the letter of Initial Acceptance from the City Public Works Department. The warranty period starts at Initial Acceptance and ends with the Final Acceptance of public improvements.

#### 13.3.1 Maintenance Responsibility

Until Final Acceptance by the City, the Owner or Developer shall, at their own expense, perform all necessary repairs or replacements to address defects in materials or workmanship. They are also responsible for routine maintenance of the improvements, including, but not limited to, street sweeping, pavement markings, signage, snow removal, pothole patching, utility maintenance, addressing safety concerns, and general cleaning.

If the Developer fails to perform routine maintenance, the City may carry out the work and bill the Developer for the actual cost plus the administrative fee, or fees, in accordance with the applicable Agreement. If payment is not received within 60 days, the City may draw upon the posted surety to recover the costs.

Permanent stormwater facilities must be properly maintained, and operations shall be in accordance with the approved operation and maintenance manual for the project. Routine maintenance of permanent

stormwater facilities shall include street sweeping and sediment and debris removal. Nonroutine maintenance may consist of repairing or replacing any stormwater-related facilities.

When the appropriate maintenance is not provided, the City may provide the necessary maintenance and shall assess the associated cost to the property owner. All permanent stormwater facilities shall be maintained in accordance with requirements specified in the Douglas County *Storm Drainage Design and Technical Criteria Manual* and the Mile High Flood District's *Urban Storm Drainage Criteria Manual*. In addition, the City recommends that these facilities be inspected during and after major storm events to confirm that the inlet and outlet structures are still functioning as designed and that no damage or clogging has occurred.

The Owner is responsible for verifying that permanent stormwater facilities function properly. To maintain proper flow, accumulated sediment, debris, and litter should be removed from these facilities. Particular attention should be given to outlet structures to prevent the control device from clogging.

#### 13.3.2 Emergency Repairs

In the event of a utility break, utility blockage, street or bridge failure, or other emergency that may occur during the warranty period, it may become necessary for the City to undertake immediate repairs to the facilities and make the area safe for the public. The City will attempt to contact the Owner in the event of such an emergency. However, if the Owner or their representative cannot be contacted or are unable to take immediate action to relieve the urgent situation, the City may proceed with such action as deemed necessary and invoice all costs of these actions at the contracted amount plus 15%.

#### 13.4 Final Acceptance and Request for Full-term Maintenance

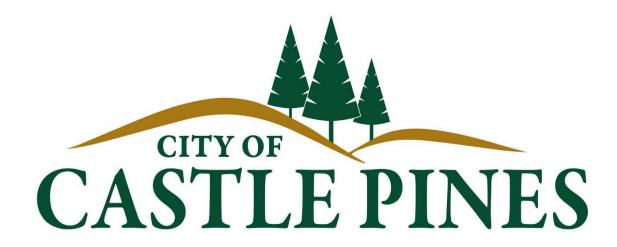
The Owner, Developer, or Contractor shall request full-term maintenance no sooner than 60 days before the completion of the warranty period. Walkthrough inspections, punch list, and permit requirements shall follow the same procedures outlined in Section 13.2 (Initial Acceptance).

Independent test verification, Record Drawings, documentation of approved variances, and profilograph requirements outlined in Section 13.2 (Initial Acceptance) may be required for Final Acceptance upon request by the City.

#### 13.4.1 Final Acceptance Security

Once Final Acceptance has been obtained by the Owner or Developer of any phase or phases of the Project, warranty security held by the City for said phase or phases may be released to the Owner or Developer in accordance with the applicable Agreement.

## 13.5 Acknowledgment of Public Improvements



## **ACKNOWLEDGMENT OF PUBLIC IMPROVEMENT PROCEDURES**

| Date of Transmittal | Permit No.       | Permittee Name      |
|---------------------|------------------|---------------------|
|                     |                  |                     |
|                     |                  |                     |
|                     |                  |                     |
| Project Name        | Project Location | Description of Work |

The following is a checklist of materials to be submitted at the time of request for acceptance. Please check "YES," "NO," or "N/A":

| ITEM   | YES | NO | N/A | NOTES |
|--|-----|----|-----|-------|
| Preliminary Walkthrough Request                |     |    |     |       |
| Executed Punch List(s)                         |     |    |     |       |
| ROW Permit(s) for Remedial Work                |     |    |     |       |
| As-Built Drawings                              |     |    |     |       |
| Test Verification/Results, Signed by PE        |     |    |     |       |
| Documentation of Approved<br>Variances         |     |    |     |       |
| Storm Drainage Video Inspection                |     |    |     |       |
| Profilograph                                   |     |    |     |       |
| Security (Letter of Credit, or Business Check) |     |    |     |       |

## **FINAL ACCEPTANCE CHECK:**

| ITEM  | YES | NO | N/A | NOTES |
|---|-----|----|-----|-------|
| Final Walkthrough Request                         |     |    |     |       |
| Executed Punch List(s)                            |     |    |     |       |
| As-Built Drawings of Stormwater Control Measures  |     |    |     |       |
| ROW Permit(s) for Remedial Work                   |     |    |     |       |
| Test Verification/Results, Signed by PE           |     |    |     |       |
| Documentation of Approved<br>Variances            |     |    |     |       |
| Storm Drainage Video Inspection                   |     |    |     |       |
| Profilograph                                      |     |    |     |       |
| Security (Letter of Credit, or Business<br>Check) |     |    |     |       |

| NOTES/COMMENTS: |  |  |
|-----------------|--|--|
|                 |  |  |
|                 |  |  |
|                 |  |  |
|                 |  |  |
|                 |  |  |

## **ACKNOWLEDGMENT**

| Signing below indicates that I had and Requirements outlined in the   |           | ity of Castle Pines Acceptance Procedures  |  |
|---|-----------|--|--|
| Owner/Developer Name  | Signature | <br>Date                                   |  |
| INITIAL ACCEPTANO   | Œ         |  |  |
| This section is to be completed a signature indicates the start of t  | •         | e. The date of Public Works Representative |  |
| Owner/Developer Name  | Signature | <br>Date                                   |  |
| City Inspector  | Signature | Date                                       |  |
| Public Works Representative   | Signature | <br>Date                                   |  |
| FINAL ACCEPTANCE  | Ē         |  |  |
| This section is to be completed a<br>Signatures indicate approval for |           | e of the associated improvements.<br>nce.  |  |
| Owner/Developer Name  | Signature | <br>Date                                   |  |
| City Inspector Signature  |           | Date                                       |  |
| Public Works Representative Signature                                 |           | <br>Date                                   |  |