

## **TOWN OF PARKER DEPARTMENT OF ENGINEERING/PUBLIC WORKS**

### **STANDARD CONSTRUCTION NOTES**

These notes shall appear on the cover sheet. If a cover sheet has not been used they shall be put on every sheet of the submittal.

1. All materials and construction shall be in conformance with the latest edition of the Colorado Department of Transportation Standard Specifications for Road and Bridge Construction, the latest edition of the Town of Parker Roadway Design and Construction Criteria Manual, and the Town of Parker Storm Drainage and Environmental Criteria Manual.
2. All materials and workmanship shall be subject to inspection by the Town of Parker Public Works Department. The Town reserves the right to accept or reject any such materials and workmanship that does not conform to its standards and specifications.
3. A preconstruction meeting shall be scheduled a minimum of 48 hours and a maximum of 96 hours prior to the start of construction. A preconstruction meeting will not be scheduled until the grading permit and all other necessary permits have been obtained.
4. The Town Inspector shall be contacted a minimum of 24 hours prior to a necessary inspection. If a Town Inspector is not available after proper notice of construction activity has been provided, the permittee may commence work in the Town Inspector's absence. However, the Town of Parker reserves the right to reject the improvement if subsequent testing reveals an improper installation.
5. Location of existing utilities shall be verified by the contractor prior to actual construction in accordance with all state and local laws. The contractor shall field verify size and horizontal and vertical locations of existing facilities prior to construction, and notify the engineer of any discrepancies.
6. The contractor shall have one (1) signed copy of the plans, approved by the Town of Parker Director of Engineering/Public Works, and one (1) copy of the Roadway Design and Construction Criteria at the job site at all times.
7. A plan for traffic control during construction shall be submitted to the Town of Parker for acceptance with the Right-of-Way Use Permit application. A permit will not be issued without an approved traffic control plan for use during construction.
8. All trenches shall be adequately supported and the safety of workers provided for as required by the most recent Occupational Safety and Health Administration (OSHA) "Safety and Health Regulations for Construction."
9. Compaction of all trenches must be attained and compaction test results submitted to the Development Review Engineer in preliminary form prior to paving and in final form prior to probationary acceptance.

10. The contractor is responsible for implementing and maintaining erosion and sediment control measures at all times during construction. The plan may be modified as field conditions warrant with approval from the Town of Parker Public Works Department.
11. The contractor shall provide, erect and maintain proper traffic control devices until the site is open to traffic. The contractor shall submit a traffic control plan to the Town of Parker Public Works Department for approval prior to construction.
12. Plans are approved for period of 1 (one) year from the date shown on the Town of Parker signature block. Plans shall be resubmitted to the Town for approval after 1 year. The cost of the plan re-review and re-acceptance will be charged back to the developer including all time and expenses of the Town of Parker Public Works Department.
13. Repair of any damage to existing improvements or landscaping is the responsibility of the contractor. Such restoration may be required to be completed prior to acceptance of completed improvements.
14. All damaged existing curb, gutter, and sidewalk shall be repaired prior to acceptance of completed improvements.
15. All construction activities must comply with the State of Colorado permitting process for "Stormwater Discharges Associated with Construction Activity." For information, please contact Colorado Department of Health, Water Quality Control Division, WQCD-PE-B2, 4300 Cherry Drive South, Denver, Colorado 80222-1530. Attention: Permits and Enforcement Section. Phone (303) 692-3500.
16. If dewatering is required, a state construction dewatering discharge permit is required for discharges to a storm sewer, channel, irrigation ditch, any street that is tributary to the aforementioned facilities, or any water of the United States.
17. All references to books, pages, maps, and reception number are public documents on file with the County Clerk and Recorder's Office.

## **ROADWAY NOTES**

The following notes shall appear on the cover sheet of all submittals containing roadway plans. If a cover sheet has not been used, they shall be put on every sheet of the submittal containing roadway design.

1. Paving shall not commence until a soils report and pavement design is approved by the Town of Parker and subgrade compaction tests are submitted to and approved by the Town Inspector.
2. Standard Town of Parker Curb Ramps are to be constructed at all curb returns and at all "T" intersections in accordance with the latest Town of Parker standards
3. All stationing is based on centerline of roadways unless otherwise noted.
4. All elevations are on USGS DATUM with date. Range point or monument shall be shown on the construction plans.
5. Except where otherwise provided for in these plans and specifications, the Colorado Department of Highways Standard Specifications for Road and Bridge Construction, the Colorado Department of Highways M and S Standards, and the Town of Parker Roadway Design and Construction Criteria Manual, latest edition, shall apply.

## STORM DRAINAGE INFRASTRUCTURE NOTES

1. All storm drainage improvements are subject to compliance with the Colorado Department of Transportation (CDOT) current edition of the Standard Specifications for Road and Bridge Construction, M & S Standards, and all standard special provisions currently used by CDOT, with the modifications set forth in the Town of Parker's Storm Drainage and Environmental Criteria Manual (SDECM), as amended.
2. The contractor shall comply with the "Colorado Water Quality Control Act" (Title 25, Article 8 CRS), the "Protection of Fishing Streams" Title 33, Article 5, CRS), the "Clean Water Act" (33 USC 1344), Cherry Creek Reservoir Control Regulation No. 72" (5 CCR 1002-72), the regulation promulgated, certification or permits issues, and the requirements presented in the SDECM Revision to Section 107 and the Construction BMP Plan. In the event of conflicts between these requirements and water quality control laws, rules, or regulations of other Federal, or State agencies, the more restrictive laws, rules, or regulations shall apply.
3. Inspections: Construction shall not begin until a grading permit has been issued for the project. The contractor shall notify the Town of Parker Engineering Department (Public Works) to schedule inspections a minimum of 48 hours prior the construction of all drainage infrastructure (storm sewers, inlets, manholes, energy dissipaters, riprap, grouted boulders, detention pond outlet structures, forebays, trickle channels, etc). Failure to notify the engineering department for inspections may result in non-acceptance of the infrastructure by the Town. Urban Drainage and Flood Control District must also be notified in a similar manner for all maintenance eligible drainage infrastructures (consult with Stormwater Engineering Division).
4. Structural backfill (CDOT Class 1) shall be compacted to conform to CDOT Standard Specification 203.03. Structural backfill (CDOT Class 2) shall conform to CDOT Standard Specification 203.07. At the contractor's option, Structural Backfill (Squeegee) meeting the gradation requirements contained in Revision of Section 206 of the CDOT Standard Specifications as presented in the SDECM, may be substituted for Structure backfill (Class 1) or Class 2) for backfilling of culvert pipes, storm sewer pipes, manholes and inlet structures; however, the top 2 feet below subgrade elevation shall be the required embankment material.
5. All excavations shall meet OSHA requirements.
6. Testing: Probationary acceptance of storm drainage improvements will be contingent upon satisfactory testing results. In all cases where tests indicate compaction less than that required by Town specifications, additional compaction and tests will be required until the specifications are met. Frequency of testing will be as follows:
  - 1 test for subgrade and 1 test for backfill at every above ground appurtenance (manholes, inlets, etc)
  - 1 test every 200 LF of mainline trench every 1 foot of backfill lift and within 1 foot from all structures.

7. Allowable storm sewer conduit material within the Town of Parker shall be limited to Reinforced Concrete Pipe (RCP) conforming to CDOT Standard Specification 706.02.
8. All RCP joints shall be manufactured in accordance with ASTM C443. Rubber gaskets shall be used on all pipe joints conforming to ASTM C443. All RCP sections shall be joined in such a manner that the ends are fully entered and the inner surfaces are reasonable flush. Average joint gap that exceeds ½ inch shall be filled with an approved flexible plastic sealant.
9. Joint restraints and toe-walls, conforming to CDOT M&S Standard Plan No. M-601-11 shall be used on all RCP flared end section outfalls.
10. Epoxy coated rebar shall be used as reinforcing steel on all storm inlets and structures. Reference CDOT M&S Standard Plan No. M-604-10, 11, 12, and 13.
11. CDOT Class D concrete shall be used for all concrete drainage structures.
12. Pre-cast inlets and manhole bases shall not be used within the Town of Parker Right-of-way, with the exception of CDOT Type C and D inlets.
13. Two- (2) manhole access points are required on all Type "R" curb inlets greater than or equal to ten (10) feet in length as presented in CDOT M&S Standard Plan No. M-604-12.
14. All grouting (boulders, riprap) shall be in accordance with the Revision of Section 506 of the CDOT Standard Specifications as presented in the SDECM.
15. All boulders and riprap shall be selected and placed in accordance with the Revision of Section 506 of the CDOT Standard Specifications as presented in the SDECM.
16. Contractor shall refer to the Town of Parker's Construction Best Management Practices details and notes for all requirements relating to re-vegetation, sediment and erosion control requirements for construction activities.
17. Pipe bells shall not be cast into manhole bases or inlets.

## **SIGNAGE AND STRIPING NOTES**

In addition to the notes in the above section of these roadway standards, the following notes shall appear on the cover sheet of all submittals containing roadways. The following notes shall be on all signage and striping plans:

1. All traffic control devices shall conform to the most recent version of the federal Manual on Uniform Traffic Control Devices (MUTCD), Colorado Supplemental MUTCD, and the Town of Parker Roadway Design and Construction Criteria Manual. Further specifications and illustrations are located in the Colorado Department of Transportation (CDOT) M and S Standards.
2. A field inspection of location and installation of all signs and markings shall be performed by the Town of Parker.
3. The contractor installing signs shall be responsible for the locating and protecting of all underground utilities.
4. Type III (lighted) barricades shall be set at the ends of roadways separating finished (and/or accepted) and unfinished construction areas and shall be maintained by the contractor/developer. A "Road Closed Ahead" and "To Be Extended" warning signs shall be installed appropriately in advance of the Type III barricades.
5. Special care shall be taken in sign locations to ensure an unobstructed view of each sign.
6. Where stop sign control is appropriate, 36 inch stop signs shall be used for approaches to any roadway that is classified as a collector or greater.
7. A 7 foot minimum post length shall be maintained from the bottom of the sign panel to the ground. This requirement for vertical clearance is for all signs.
8. Delineation of roadways shall be as specified in the Colorado Department of Transportation M and S Standards.
9. Raised median island noses shall have R4-7 signs at each end and a 4"x12" high intensity yellow sign blank located midway between the R4-7 sign and finished grade on each post.
10. Signage and striping has been determined by information available at the time of review. Prior to the initiation of any warranty period, the Town of Parker reserves the right to require modifications to existing, or installation of, additional signage and/or pavement marking if it is determined that conditions warrant such modification according to the MUTCD or the CDOT M and S Standards. All signage and striping shall fall under the requirements of the two-year warranty period for new construction. Additionally, all pavement markings shall not lift or peel during the first year after installation.
11. Diamond grade material shall be used on all stop signs and overhead signs. All other roadside traffic control devices shall use high intensity grade sheeting. No fluorescent yellow green sheeting shall be used unless specifically approved by the Town of Parker.

12. All street name signs shall be high intensity, extruded, green and white blades. Arterial and collector street name signs shall be 9 inch blades and have mixed case lettering. Local street name signs shall be 6 inches blades with mixed case lettering.
13. All layouts for internally illuminated street name signs shall be submitted to the Town for review and approval prior to fabrication.
14. All removed signs shall be returned to the Town of Parker.
15. Crosswalks: Shall be constructed using preformed thermo-plastic or an approved equal.  
  
Shall be Longitudinal 2 feet by 10 feet (Continental) type or other approved by the Town of Parker.  
  
Shall line up with handicap ramps.  
  
Shall be centered within lanes and placed on lane and curb lines so as to avoid vehicle wheel paths.
16. All pavement marking material (including words and symbols) shall be as follows:  
  
**For Concrete Surface:**  
Long line markings (channelization lines, skips, etc.) shall be epoxy paint.  
Other paint may be used for temporary application only when approved by the Town of Parker.  
  
Words, symbols, and crosswalks/stop bars shall be methyl-methacrylate, preformed thermoplastic (90 mil), preformed plastic (90 mil), inlaid tape (STAMARK), or as specified.  
  
(Sand or water blast curing compound prior to installation of markings.)  
  
**For Asphalt Surface:**  
Long line markings (channelization lines, skips, etc.) shall be epoxy paint.  
Other paint may be used for temporary application only when approved by the Town of Parker.  
  
Words, symbols, and crosswalks/stop bars shall be hot applied thermoplastic (90 mil), preformed plastic (90 mil), inlaid tape (STAMARK), Methyl-Methacrylate, or as specified.
17. Inspection and approval of striping and crosswalk layout to be done by Town of Parker Development Review Engineer (call 303-840-9546) prior to application of final striping.