

SECTION 2: GENERAL IMPROVEMENT REQUIREMENTS

This section is an outline of Herriman City development requirements. Requirements listed herein must be completed for each project/development. Compliance with these requirements must be maintained throughout the project.

2.01 Improvement Plan Submittal Requirements

This section outlines the improvement plan submittal requirements for each type of development.

2.01.01 **Conditional Use.** Generally a conditional use is a land use which would not be permitted under the normal regulations of a zoning district. However, the proposed use may be made acceptable within the zoning district if construction or development of the use complies with specified additional development standards or special conditions provided by the Planning Commission. The standards or conditions of approval are described on a conditional use permit that remains with the property, provided the standards and conditions of the permit continue to be followed. The conditional use submittal requirements are listed below.

1. Submit four complete sets of the improvement plans, including:
 - a. Title sheet. (3.02)
 - b. Street improvement plans and profiles. (3.07)
 - c. Grading and drainage plans and profiles. (3.08)
 - d. Storm drain plans and profiles. (3.09)
 - e. Culinary water plans. (3.10)
 - f. Utility overview sheet. (3.11)
 - g. Erosion control plans. (3.12)
 - h. Irrigation plans. (3.13)
 - i. Landscape plans. (3.14)
 - j. Traffic signing, striping, and control plans. (3.15)
 - k. Details and typical sections. (3.16)
 - l. Other special plans, as required.
 - m. Secondary water plans and profiles. (3.17)
2. Submit two sets of storm drain calculations.
3. Submit engineer's estimates of construction costs.
4. Submit all easements and agreements. (4.12)
5. Submit a geotechnical report.
6. Submit a traffic impact study, if required. (4.02)
7. Submit all other associated studies (geological, environmental site assessment or other hazard studies), if required.
8. Submit other information or documents as necessary.
9. Submit all necessary permits. (2.06)
10. Submit electronic files at the following stages for review: concept plan, final approval, as-built . (2.04)

2.01.02 **Simple Subdivision or Lot Split.** Generally a simple subdivision or lot split is a subdivision of fewer than ten lots, and does not involve the dedication of property for public purposes (i.e. city road, public right of way, city park, etc.). Simple subdivisions may be recorded with the Salt Lake County Recorder's Office by Metes and Bounds rather than by a subdivision plat map. The submittal requirements for a simple subdivision or lot split are listed below.

1. Submit four complete improvements plans and metes and bounds plat, including:
 - a. Title sheet. (3.02)
 - b. Metes and bounds plat. (3.03)
 - c. Street improvement plans and profiles. (3.07)
 - d. Grading and drainage plans and profiles. (3.08)
 - e. Storm drain plans and profiles. (3.09)
 - f. Culinary water plans. (3.10)
 - g. Utility overview sheet. (3.11)
 - h. Erosion control plans. (3.12)
 - i. Traffic signing, striping, and control plans. (3.15)
 - j. Details and typical sections. (3.16)
 - k. Other special plans, as required.
 - l. Secondary water plans and profiles. (3.17)
2. Submit two sets of storm drain calculations.
3. Submit engineer's estimates of construction costs.
4. Submit all necessary permits. (2.06)
5. Submit environmental site assessment, if required.
6. Submit other information or documents as necessary.
7. Submit electronic files at the following stages for review: concept, final approval, as-built. (2.04)

2.01.03 **Subdivision and Master Planned Subdivision.** Subdivision means any land that is divided, re-subdivided or proposed to be divided into two or more lots, parcels, sites, units, plots, or other division of land for the purpose, whether immediate or future, for offer, sale, lease, or development either on an installment plan or upon any and all other plans, terms, and conditions. Subdivision includes: The division or development of land whether by deed, metes and bounds description, devise and testacy, lease, map plat, or other recorded instrument; and divisions of land for all residential and non-residential uses, including land used or to be used for commercial, agricultural, and industrial. The requirements for both subdivision and master planned subdivision are listed below.

1. Submit a title report for the subdivided land.
2. Submit four complete sets of the improvement plans and dedicated plat(s), including:
 - a. Title sheet. (3.02)
 - b. Dedicated plat. (3.04)
 - c. Mylar plat. (3.05)
 - d. Street improvement plans and profiles. (3.07)

- e. Grading and drainage plans and profiles. (3.08)
 - f. Storm drain plans and profiles. (3.09)
 - g. Culinary water plans. (3.10)
 - h. Utility overview sheet. (3.11)
 - i. Erosion control plans. (3.12)
 - j. Irrigation plans. (3.13)
 - k. Landscape plans. (3.14)
 - l. Traffic signing, striping, and control plans. (3.15)
 - m. Details and typical sections. (3.16)
 - n. Other special plans as required.
 - o. Secondary water plans and profiles. (3.17)
3. Submit two sets of storm drain calculations.
 4. Submit engineer's estimates of construction costs.
 5. Submit survey notes.
 6. Submit any escrow agreements.
 7. Submit all easements and agreements. (4.12)
 8. Submit a geotechnical report.
 9. Submit a traffic impact study. (4.02)
 10. Submit all other associated studies (geological, environmental site assessment or other hazard studies), if required.
 11. Submit other information or documents as necessary.
 12. Submit a master plan layout showing the development in phases.
 13. Submit a transportation master plan.
 14. Submit a water master plan.
 15. Submit a storm drainage master plan.
 16. Submit all necessary permits. (2.06)
 17. Submit electronic files at the following stages for review: concept, final approval, as-built. (2.04)

2.01.04 **Planned Unit Development (PUD).** The planned unit development is an integrated design for development of residential, commercial, or industrial use, or combination of such uses, in which one or more of the regulations, other than use regulations, of the district in which the development is to be situated, is waived or varied to allow flexibility and initiative in site and building design and location in accordance with an approved plan and imposed general requirements as specified in this chapter. A planned unit development may be: The development of compatible land uses arranged in such a way as to provide desirable living environments that may include private, public and common open spaces for recreation, circulation, and/or aesthetic uses; or creation of areas for multiple uses that are of benefit to the neighborhood and the City. The submittal requirements for a planned unit development are listed below.

1. Submit a title report for the proposed subdivided land.
2. Submit four complete sets of improvement plans and dedicated plat(s), including:
 - a. Title sheet. (3.02)
 - b. Dedicated plat. (3.04)

- c. Mylar plat. (3.05)
 - d. Project overview map. (3.06)
 - e. Street improvement plans and profiles. (3.07)
 - f. Grading and drainage plans and profiles. (3.08)
 - g. Storm drain plans and profiles. (3.09)
 - h. Culinary water plans and profiles. (3.10)
 - i. Utility overview sheet. (3.11)
 - j. Erosion control plans. (3.12)
 - k. Irrigation plans. (3.13)
 - l. Landscape plans. (3.14)
 - m. Traffic signing, striping, and control plans. (3.15)
 - n. Details and typical sections. (3.16)
 - o. Other special plans as required.
 - p. Secondary water plans and profiles. (3.17)
3. Submit two sets of storm drain calculations.
 4. Submit engineer's estimates of construction costs.
 5. Submit survey notes.
 6. Submit any escrow agreements.
 7. Submit all easements and agreements. (4.12)
 8. Submit a geotechnical report.
 9. Submit a traffic impact study. (4.02)
 10. Submit all other associated studies (geological, environmental site assessment or other hazard studies), if required.
 11. Submit other information or documents as necessary.
 12. Submit a master plan layout showing the development in phases.
 13. Submit a transportation master plan.
 14. Submit a water master plan.
 15. Submit a storm drainage master plan.
 16. Submit all necessary permits. (2.06)
 17. Submit electronic files at the following stages for review: concept, final approval, as-built. (2.04)

2.02 Contractor/Developer

For the purpose of this document, the developer and the contractor are considered one and the same.

2.03 Engineer's Seal Required

Any final plan, map sketch, survey, drawing, document, plat, specification, or report shall bear the seal of a professional engineer and/or surveyor licensed in the State of Utah when filed with Herriman City Corporation. This is a State requirement and applied to all documents filed with Herriman City including but not limited to filings related to site plans, plats, improvement plans, specifications or report of a building or structure. Additionally the signature of the individual named on the seal and the date shall appear across the face of each original set of documents in compliance with State law.

2.04 Electronic File Requirements

Concept, final approved and as-built surveys in electronic format shall be submitted and accepted by the Herriman City Engineering Department. The electronic drawings shall be in Computer Aided Drafting (CAD) file format. The acceptable formats are AutoCAD 2002 or later. The deliverables for CAD submittals are AutoCAD drawing files and Microsoft Excel files. All CAD files shall be registered to the North American Datum 83 (NAD83) State Plane Coordinates US Survey foot, Utah Central Zone coordinate system (grid) with ties to two public monuments. Information on monuments is available through Herriman City or Salt Lake County Surveyor.

2.04.01 **File Content and Layering.** To ensure that all electronic files will be able to be incorporated into Herriman City's Geographic Information System correctly. All electronic files submitted shall be drawn and labeled on individual layers. These layers shall include:

1. Water line sizes on individual layers.
2. Water service layer.
3. Water meter layer.
4. Water valve layer.
5. Fire hydrant layer.
6. Hydrant service layer.
7. Hydrant valve layer.
8. Storm drain line sizes on individual layer.
9. Storm drain manhole layer.
10. Storm drain catch basin layer.
11. Detention pond layer.
12. Sewer line layer.
13. Sewer manhole layer.
14. EOP (edge of pavement) layer.
15. Lot layer.
16. Lot number layer.
17. Sidewalk layer.
18. Back of curb layer.
19. Road centerline layer.
20. Dimension layer.
21. Contour layer.
22. Sprinkler head layer.
23. Sprinkler line sizes on individual layers.
24. Sprinkler valves layer.
25. Sprinkler timers layer.
26. Street light wire sizes on individual layer.
27. Street light location.
28. Street Light Junction boxes.

2.04.02 **Geometry.** All files shall be constructed in a format that is geometrically correct; meaning that all lines that intersect are snapped together at a common point (no overlapping lines or short shots). Street centerlines

shall be segmented to be a continuous polyline. Structures (bridges, box culverts, and arch culverts) shall be surveyed at the four corners of the structure and shall be drawn to form an enclosed polygon for each structure. Bridges shall be surveyed at the top of the bridge abutments on the four corners. Storm drain and sanitary sewer pipes shall be drawn in the direction of flow and shall be a continuous polyline from structure to structure and snapped together at the centerline of the structure. Water lines shall be segmented to be a continuous polyline from pipe intersection or at changes in pipe size. Water line shall be drawn without curves. A series of lines shall be used to represent smooth curves. The edge of pavement, curb and gutter, sidewalks, street centerlines, culinary waterlines, and storm drain lines shall be 3D polylines representing their actual horizontal and vertical location. Where text is being placed for a polygon feature, the text justification point shall be placed within the boundary of the polygon. It is acceptable to have the text overwrite one another.

2.05 Bonding Information

A bond posted with Herriman assures the City that required improvements will be completed according to City specifications. City Ordinance allows for the following bond choices:

- 2.05.01 **Escrow.** A special account with a local bank in which the bank agrees to hold the funds until the City directs them to release it.
- 2.05.02 **Letter of credit.** A document obtained from a local bank granting permission to the City to draw on the developers account should the developer default. It must have an expiration date no less than 36 months from the date the bond is presented to Herriman City.
- 2.05.03 **Cashier's Check.** Only a cashier's check will be accepted (no company checks or personal checks). The City will deposit the check into a special account and hold it until the project is complete. If no request has been made within 3 years all proceeds become property of Herriman City.

Please note, only Herriman City forms will be accepted. Copies of all bond agreements are located in *Appendix A*. The Bond Coordinator must be informed of which form of agreement will be used. All bond release inspection requests must be in writing, telephone requests will not be accepted. Release of the bond will NOT be initiated until this step is taken. Should your project fail the initial bond release inspection, you will be required to pay a re-inspection fee, along with your re-inspection request. Please note that in the event that the city is requested to hold the plat for final signature and approval until all fees and bonds have been received, the requesting party will be responsible to pay all costs and fees associated with this request.

2.07 Pre-Construction Conference

After final approval the Contractor may be released for construction of the development. A pre-construction conference shall be held before any excavation or other work is begun in the development. The meeting will be held at Herriman City, and will include:

- 2.07.01 City Engineer or his representative (inspector or engineer).
- [2.07.02 Municipal Water representative.](#)
- [2.07.03 Parks Department representative.](#)
- 2.07.04 Developer.
- 2.07.05 Developer's design engineer.
- 2.07.06 All contractors and subcontractors involved with installing the development improvements.
- 2.07.07 Representatives of the affected utility companies.
- 2.07.08 Others as may be necessary.

A pre-construction conference application shall be submitted by the developer. This application will schedule the meeting and notify all Herriman City Personnel of the upcoming pre-construction conference. The meeting will be conducted by the City Engineer or his representative. Items to be discussed shall relate to project scheduling, materials used, coordination with all affected parties, and other important items as may be deemed necessary by the City Engineer. Minutes will be taken and distributed to all in attendance. The Contractor will not be permitted to proceed with construction unless this meeting takes place and those responsible for all construction activities are in attendance.

2.08 Inspection

All construction work involving the installation or repair of improvements in developments shall be subject to inspection by the City. It shall be the responsibility of the developer to ensure that inspections take place where and when required as indicated in the specifications, on the permit and as discussed in the preconstruction conference, where applicable. All projects will be assigned an inspector in which the inspector will be responsible for the project and all information shall be directed through the inspector in charge of the project. It is Herriman City's objective to be proactive with the inspection of each project and in order to facilitate this objective it is the developer's responsibility that all inspections shall be completed.

- 2.08.01 **Continuous and Periodic Inspection.** Certain types of construction may require continuous inspection, while others will only require periodic inspections. The type and amount of inspection performed by the City shall be at the sole discretion of the City Engineer. On construction requiring continuous or periodic inspection, no work shall start until an inspection request has been made to the City by the Developer and the required submittals received and approved by the City. Throughout the inspection process the contractor shall ensure that the infrastructure installed in the project is inspected and surveyed. The City may require the contractor to

leave some infrastructure open to review and inspect. Continuous inspection may be required on the following types of work:

1. Placement of street surfacing.
2. Placing of concrete for curb and gutter, sidewalks, and other structures.
3. Installation of storm drainage pipe, water pipe, valves, and hydrants.
4. Testing and backfilling as per approved specifications.
5. Any connections to the city utilities.
6. Street grading and gravel base placement and compaction.

2.08.02 **System Improvements.** All projects have multiple systems in order to better manage the flow of each project the City shall calculate the bond according to the system it is related to. The inspection process shall follow the systems also to define stages of each project. The six systems that Herriman City shall evaluate with each project are listed below:

- 1 Culinary Water System Improvements. All pipe, fittings, valves, services, hydrants, blow off assemblies, air vacuum release valves, sampling stations, pressure reducing valves, and other structures required in the project that convey drinking water.
- 2 Storm Drain System Improvements. All pipe, manholes, catch basins, inlet structures, outlet structures, swales, pond excavation, and other structures required in the project that convey storm water.
- 3 Secondary Water System Improvements. All pipe, fittings, valves, services, blow off assemblies, air vacuum release valves, pressure reducing valves, and other structures required in the project that convey secondary water.
- 4 Street System Improvements. All earth work, grading, road base, curb and gutter, waterways, asphalt, sidewalk, sidewalk ramps and other structures required in the project that convey vehicular or pedestrian traffic.
- 5 Irrigation and Landscaping System Improvements. All water pipe, valves, controllers, landscaping, trees, shrubs, park equipment, fencing, and other equipment required in the project.
- 6 Miscellaneous System Improvement. All street monuments, collars, erosion control devices, street lights and any other structures or equipment required in the project.

2.08.03 **System Material Inspection.** As each project begins each phase of construction and the material is on the project the contractor shall request a system material inspection. This inspection shall ensure all proper materials for each system is verified prior to install.

2.08.04 **System Start Up Inspection.** As each project begins each phase of construction the contractor shall request an inspection. This inspection is crucial to ensure proper installation is observed before system wide construction is allowed to reduce possible defects or deviancies.

2.08.05 **System Partial Release Inspection.** During the construction of each system the developer may request one partial release from the above six system improvements. This inspection shall occur at any time, but is only

allowed one time per system. No other partial releases will be granted until system substantial completion has been reached. This inspection only requires one inspector. The system partial release inspection does not in anyway guarantee or warrant any work installed but is only a quantity measure that construction has installed the portion of the improvements being requested for system partial bond release. See section 2.09 for bond release information.

2.08.06 **System Substantial Completion Inspection.** As each system is completed an inspection shall occur that reviews the entire system and ensures that the system is installed and functional according to all Herriman City standards. This inspection requires two Herriman City representatives and shall be completed by the project inspector and a representative for the system. See Section 2.10 for bond release information.

1 Culinary Water System Improvements substantial completion shall be completed after curb and gutter installation and base placement but, before asphalt installation.

2 Storm Drain System Improvements substantial completion shall be completed after curb and gutter installation and base placement but, before asphalt installation.

3 Secondary Water System Improvements substantial completion shall be completed after curb and gutter installation and base placement but, before asphalt installation.

4 Street System Improvement substantial completion shall be completed after all the improvements bonded for are in and the system is functioning according to Herriman City standard.

5 Irrigation and Landscaping System Improvement substantial completion shall be completed after all the improvements bonded for are in and the system is functioning according to Herriman City standard.

6 Miscellaneous System Improvement substantial completion shall be completed after all the improvements bonded for are in and the system is functioning according to Herriman City standard. Street lights shall also be included under the Miscellaneous System Improvements.

2.08.07 **Final Completion.** Final Completion shall occur after all systems have been completed and inspected the last system to be completed and approved shall cause Final Completion to be granted. Final Completion is not an inspection however it begins the warranty period for all systems. See section 2.11 for bond release information.

2.08.08 **Warranty Review Inspection (12 Months Inspection).** Warranty Review Inspection shall occur one year from the Final Completion. This inspection is an audit to ensure system construction is still free of defects and deficiencies. This inspection shall require two Herriman City representatives and shall be completed by the project inspector and a representative for the system. See section 2.12 for bond release information.

2.08.09 **End of Warranty Inspection (18 Month Inspection).** End of Warranty Inspection shall occur eighteen months from the Final Completion. This

inspection is an audit to ensure system construction is still free of defects and deficiencies. This inspection shall require two Herriman City representatives and shall be completed by the project inspector and a representative for the system. See section 2.12 for bond release information.

Requests for inspection on work requiring continuous inspection shall be made at least two (2) working days prior to the commencing of the work. Notice shall also be given 24 hours in advance of the starting of work requiring periodic inspection, unless specific written approval is given otherwise. For inspection requiring two or more Herriman City representatives notice shall be given one (1) week and will only be scheduled on a Tuesday or Thursday. It is critical that all inspection requests are complete and ready for inspection. Work done by the Contractor which requires periodic or continuous inspection beyond the normal working hours of the City (8 am to 5 pm Monday thru Friday), on weekends or City holidays shall require prior payment of current City overtime rates by the contractor.

2.09 Partial Bond Release

During the construction of each system the developer may request one partial bond release per system. This inspection shall occur at any time, but is only allowed one time per system. As outlines in section 2.08.05 System Partial Release Inspection once partial release has occurred for each system no releases will be granted until System Substantial Completion Bond Release. The system partial release inspection does not in anyway guarantee or warrant any work installed but is only a quantity measure that construction has installed the portion of the improvements being requested for partial bond release. Partial releases are not required but may be granted once per system.

2.10 System Substantial Completion Bond Release

System Substantial completion inspection shall be made by the City Engineer or a representative after ALL system construction work is completed. Upon substantial construction completion, contractor shall submit a substantial completion inspection application to the City prior to the improvement inspection. These inspections shall be completed as discussed in section 2.08.06. Any faulty or defective work shall be corrected by the persons responsible for the work within a period of fifteen (15) days from the date of the inspection report defining the faulty or defective work. Should the Contractor fail to complete the required work, the City Engineer, at his discretion, may complete the defective work and bill the Contractor, using the monies in escrow, or otherwise held by the City to complete the defective work. If the City Engineer or a representative determines damages or defective is present and is concerned about replacement may cause more damage than desired the City Engineer or a representative may elect to take monies from the bond for the cost of replacement of damaged and defective work rather than removing the defective work. In addition the City may withhold future permits from the affected Contractor, Subcontractor or Developer. After this inspection occurs and ALL system improvements constructed are approved, an As-built record of plans shall be made. These As-built plans shall show location of all

infrastructures installed for all culinary water, storm drain, secondary water, street system, irrigation and landscaping, street lights and any other system improvements installed by the developer and shall be submitted electronically and reviewed prior to release, see section 2.04 for the electronic file format. All plans shall be surveyed in and stamped by a Professional Engineer licensed in the State of Utah. In addition the developer will be required to provide final survey on all detention facilities to ensure design capacities is achieved. All surveys shall be stamped and certified by a licensed land surveyor. This As-built shall be drawn in accordance with Herriman City file format and must be completed and approved before any release of bond will occur. Upon receipt of the above stipulated conditions a release of the bond may be granted in the amount of 75% of the bond for that system.

2.11 Final Completion

Final Completion shall occur after all systems have been completed and inspected the last system to be completed and approved shall cause Final Completion to be granted. See section 2.08.07 for inspection information regarding Final Completion. Final Completion begins the warranty period for all systems. Upon final completion all systems shall have been released to 75% of the bond amount. Final Completion begins the warranty period.

2.12 Guarantee of Work

The developer shall warrant and guarantee (a retainage of an escrow or other security in the amount as dictated by applicable City ordinances) that the improvements and every part thereof will remain in good and serviceable condition for a period of eighteen months from the final date of all substantial completion inspections report by the City Engineer or his authorized representative. Additionally, the developer shall ensure that the improvements are in good condition during that warranty period at no cost to the City. Any repairs required by the City shall be made at no cost to the City. It is further agreed and understood that the determination for necessity of repairs and maintenance of the work rest with the City Engineer. The Engineer's decision upon the matter shall be final and binding upon the Developer, and the guarantee hereby stipulated shall extend to and include, but shall not be limited to, the entire street base, and all pipes, fittings, joints, valves, backfill, and compaction, as well as the working surface, curbs, gutters, sidewalks, and other accessories that are or may be affected by the construction operations. Also, whenever, in the judgment of the City Engineer, said work shall be in need of repairs, maintenance, or rebuilding, the Engineer shall cause a written notice to be served upon the Developer or permittee, or both, and the responsible party(s) shall undertake and complete such repairs, maintenance, or rebuilding. If the responsible party(s) fails to do so within thirty (30) days from the date of the service of such notice, the City Engineer shall have such repairs made. The cost of such repairs shall be paid by the responsible party(s), together with 25 percent in addition thereto as damages for failure on the part of the responsible party(s) to make the repairs. If the City Engineer or a representative determines damages or defective is present and is concerned about replacement may cause more damage than desired the City may elect to take monies from the bond for the cost of replacement of damaged and defective work rather than removing

the defective work. Additionally the City Engineer may withhold future permits from the affected contractor, subcontractor or developer for failure to comply with City requirements. A Warranty Review Inspection as outlined in section 2.08.08 shall occur at 12 months to verify compliance with the above stipulated conditions. After this inspection an amount of fifteen percent (15%) of the total bond shall be released. An End of Warranty Inspection as outlined in section 2.08.09 shall occur prior to the completion of the warrantee period to verify compliance with the above stipulated conditions. After this inspection occurs ALL constructed improvements shall be accepted by Herriman City, and the remaining ten percent (10%) of the bond shall be released.

2.13 Development Safety

It shall be the responsibility of the developer to maintain and enforce all Federal, State, and Local safety codes involved with the development. All excavations shall be conducted in a manner resulting in a minimum amount of interference or interruption of street or pedestrian traffic. Inconvenience to residents and businesses fronting on the Public Way shall be minimized. Suitable, adequate and sufficient barricades and/or other structures will be available and used where necessary to prevent accidents involving property or person. Barricades must be in place until all of the permittee's equipment is removed from the site and the excavation has been backfilled and proper temporary gravel surface is in place, except where backfilling and resurfacing is to be done by the City. In this case, the barricades together with any necessary lights, flares, or torches, must remain in place until the backfill work is commenced by the City. From sunset to sunrise, all barricades and excavations must be clearly identified by adequate signal lights, torches, etc. Street closure and traffic detours require permission from the City Engineer based on a traffic control/detour plan submitted by the contractor. The Police Department and Fire Department shall be notified at least 24 hours in advance of any planned excavation requiring street closure or traffic detour by the permittee.