NIBLEY CITY COUNCIL MEETING AGENDA
Thursday, May 23, 2019 – 6:30 p.m.
Nibley City Hall 455 West 3200 South, Nibley, Utah

1. Opening Ceremonies (Councilmember Bernhardt)
2. Call to Order and Roll Call (Chair)
3. Approval of Minutes and Agenda (Chair)
4. Public Comment Period[1] (Chair)
5. Planning Commission Report
6. Presentation by the Utah Local Governments Trust
7. A Public Hearing to receive comment regarding Ordinance 19-07: Zoning and Annexation Petition for 20 acres, Contained Within Parcel Tax ID:03- 008-0004, or Firefly Park, Located South of 2200 South and Between 1000 West and 800 West
8. Discussion and Consideration of Ordinance 19-07: Zoning an Annexation Petition for 20 acres, Contained Within Parcel Tax ID:03- 008-0004, or Firefly Park, Located South of 2200 South and Between 1000 West and 800 West (First Reading)
9. Discussion and Consideration of Ordinance 19-09: Nibley City Design Standards and Specifications (First Reading)
10. Discussion and Consideration of Ordinance 19-03: Residential Planned Unit Development (R-PUD) (Second Reading)
11. Discussion and Consideration of Ordinance 19-05: Amendments to Nibley City code, Title 21: Subdivision Regulations—Minor Editing/Changes (First Reading)
12. Discussion and Consideration of Ordinance 19-06: Amendments to Nibley City code, Title 21: Subdivision Regulations—Substantive Policy Changes (First Reading)
13. Discussion and Consideration of Ordinance 19-08: AN ORDINANCE PROVIDING FOR THE COMPENSATION OF ELECTED AND STATUTORY OFFICERS OF NIBLEY CITY (First Reading)
14. Discussion and Consideration of Resolution 19-09: A Resolution Regulating the Use of Fireworks within Nibley City Limits
15. Discussion and Consideration of Ordinance 19-04: Highway 89/91 Setbacks and Commercial Node Definition (Second Reading)
16. Concept Review with Visionary Homes of a Rural Preservation Subdivision, located south of 3400 south and between 600 West and 450 West
17. Council and Staff Reports
18. Adjourn to Closed Session to discuss personnel pursuant to Utah Code 52-4-205

In compliance with the Americans With Disabilities Act, reasonable accommodations for individuals with disabilities will be provided upon request. For assistance, please call (435) 752-0431.

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[1] *Public input is welcomed at all City Council Meetings. 15 minutes have been allotted to receive verbal public comment. Verbal comments shall be limited to 3 minutes per person. A sign-up sheet is available at the entrance to the Council Chambers starting 15 minutes prior to each council meeting and at the rostrum for the duration of the public comment period. Commenters shall identify themselves by name and address on the comment form and verbally for inclusion in the record. Comment will be taken in the order shown on the sign-up sheet. Written comment will also be accepted and entered into the record for the meeting if received prior to the conclusion of the meeting. Comments determined by the presiding officer to be in violation of Council meeting rules shall be ruled out of order.*

Nibley City Council

Agenda Report for
May 23, 2019

Agenda Item #6

Description	Presentation by the Utah Local Governments Trust.
Department	Public Works
Presenter	Jason Watterson, Utah Local Governments Trust
Recommendation	Receive the presentation.
Reviewed By	City Manager, Public Works Director

Background

A representative of the Utah Local Governments Trust will make a presentation to the City Council regarding City participation in the ULGT safety program.

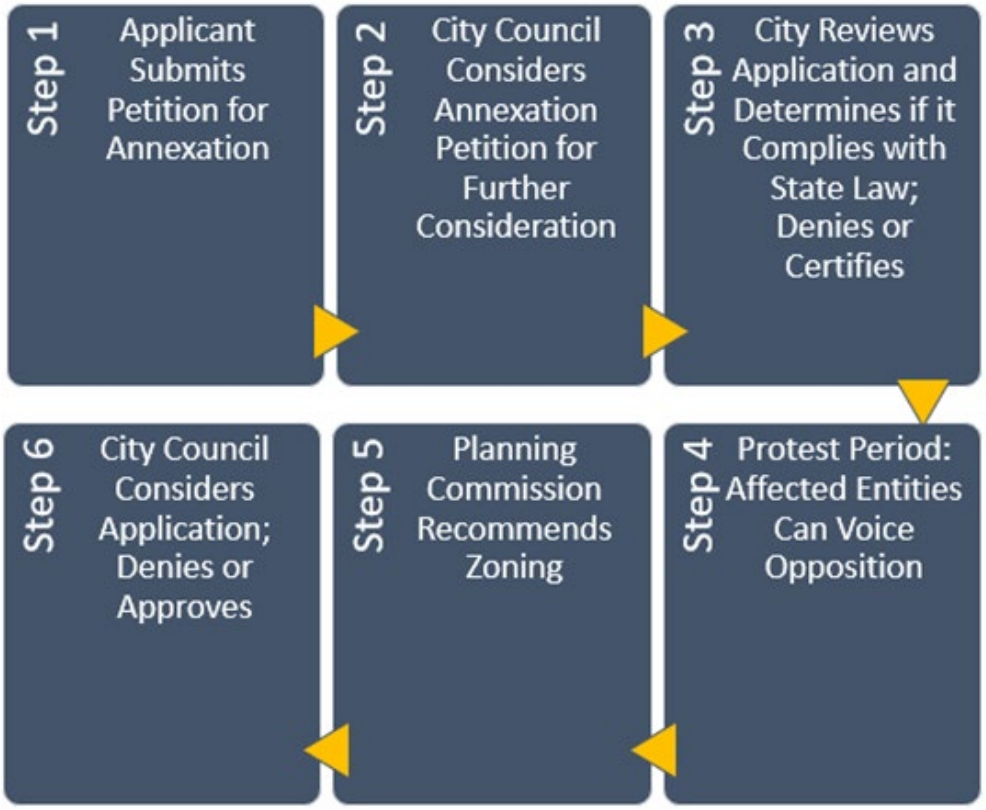
Agenda Item #7 & 8

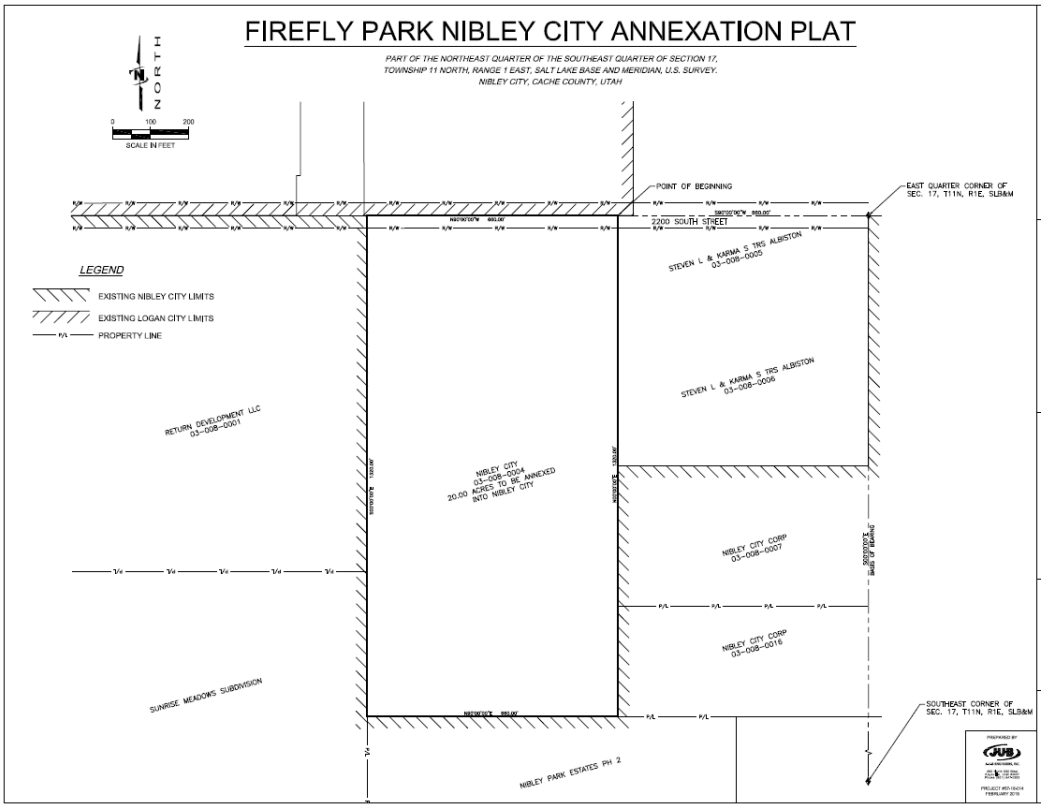
Description	A public hearing to receive comments regarding Ordinance 19-07: Zoning and Annexation Petition for 20 acres, contained within Parcel Tax ID:03-008-0004, or Firefly Park, located south of 2200 south and between 1000 west and 800 west. and Discussion and consideration of Ordinance 19-07: Zoning and Annexation Petition for 20 acres, contained within Parcel Tax ID:03-008-0004, or Firefly Park, located south of 2200 south and between 1000 west and 800 west.
Department	Planning
Presenter	Stephen Nelson, City Planner
Recommendation	Aprovel zoning and move to approve Ordinance 19-07: Zoning and Annexation Petition for 20 acres, contained within Parcel Tax ID:03-008-0004, or Firefly Park, located south of 2200 south and between 1000 west and 800 west, for first reading.
Reviewed By	Mayor, City Manager, City Planner, City Attorney, Nibley City Planning Commission

Background

Nibley City has filed an Annexation Petition with the City Recorder and sent copies to the Cache County Clerk, Emergency Responders, and the Health Department for the annexation of Firefly Park. The Annexation contains Parcel 03-008-0004 and the southern half of 2200 South, containing 20 acres total. The City Council accepted this petition on April 11, 2019. The City then certified the petition on April 15, 2019 and sent notice to all required affected entities. As of May 15, there were no protest filed with the City or County.

The Nibley City annexation policy plan and state law dictate that the City follow the steps listed below before the City can approve an annexation petition. The proposed is to adopted the proposed annexation and zoning of the parcel.





Items to Consider for Annexation

The following are items should be considered whether the City should accept or deny the petition, each of which is addressed in more detail after this list:

1. The area is within the boundaries of an approved expansion area map (i.e. the Annexation Declaration Boundary as shown on the Future Land Use Map).
2. Consistency with the general plan and the overall character of Nibley City;
3. The need for municipal services in developed and undeveloped unincorporated areas:

a. Plans for extension/expansion of municipal services;
b. Plans to finance extension/expansion of municipal services.

4. An estimate of the tax consequences to residents both currently within the municipal boundaries and in the area proposed for annexation.
5. The interests of all affected entities

Why Annex?

Having Firefly Park within Nibley City boundaries allows the City to pass codes to control the use on the property and will allow the City enforce ordinances. The Parks and Recreation Committee has made a positive recommendation on a new park ordinance regulations that would apply to all City-owned parks and trails within the City. These regulations, if approved, would not apply to Firefly Park until the park is annexed into the City. Therefore, it is important that the City annex this property into Nibley City boundaries.

Annexation Declaration Boundary and Property

One of the biggest criteria that the City must consider is if the petition area is contained within the City's Annexation Declaration Boundary. In the case of the Firefly Park Annexation application, the entire area falls within the City's annexation declaration boundary. It also does not create any islands or peninsula of unincorporated areas.

General Plan

Nibley City's General Plan provides general guidelines for the future development of Nibley City. The City's Annexation Policy Plan in an addendum to the General Plan and provides guidelines for the City to consider annexations. Nibley City's General Plan also lists the core values that would be supported by this annexation:

Nibley's core values:

- Pride in the City's history and heritage
- The rural character, scenic beauty, and natural resources of the area
- Nearby recreation opportunities
- Agricultural fields and open spaces
- A transportation system that promotes safe and efficient travel
- Recognizing and respecting private property rights
- Aesthetically pleasing design of development and public facilities

(2016 Nibley City General Plan, pg. 6)

Municipal Service and Impact on Community

One of the main reasons that most property owners seek to annex into a community is to be able to connect to that City's utilities and service to be able to develop property that would have a higher impact than what is normally allowed in unincorporated areas. These developments would follow City subdivision rules and each building would pay impact fees, utility bills and property taxes to pay for the increased demand on City infrastructure. The Firefly Park Annexation is different since there would be no tax or other fee collection to pay for the increased impact of the development. However, the park is part of the city's parks master plan and the development and long-term maintenance of the park have already been considered when the City Council approved the purchase and development of this property. Even though the development of this park, including the roads adjacent, will not fund themselves, the City has already approved the development and agreed to the long-term plan for this park as an amenity for City residents. This annexation allows the City to protect an important resource for the community as a whole and fulfills several goals within the General Plan. In fact, the development of this park is a mitigation of growth in that it addresses the impact of new residents in the City by providing extra open park space. This park is being partially funded with park impact fees.

The Interest of other Affected Entities

Each affected entity has recently been able to comment on the new Annexation Policy Plan. Each affected entity has be given an opportunity to protest any concerns, and no protest have been filed during the protest period. You will find a copy of Nibley City's newly adopted Annexation Policy Plan in the meeting box.

Zoning

Staff recommends that the City Council consider zoning the property as the Parks/Schools zone as found on the City's Zoning Map. This zone does not have any standards within our written code, but is established on the City's zoning map, which is adopted as part of the City Code.

> *19.08.020 Zoning Map; Boundaries Of Zones*
>
> *The boundaries of each of the said zones are hereby established as described herein or as shown on the map entitled zoning map of Nibley or as hereafter amended, and all boundaries, notations and other data as shown on said map are made by this reference as much a part of this title as if fully described and detailed herein. The said map shall be filed in the custody of the city recorder and may be examined by the public subject to any reasonable regulations established by the city recorder.*

ORDINANCE 19-07

AN ORDINANCE APPROVING ZONING AND ANNEXATION OF FIREFLY PARK NIBLEY CITY ANNEXATION, PARCEL 03-008-0004.

BE IT ORDAINED BY THE NIBLEY CITY COUNCIL LOCATED AT NIBLEY, UTAH, THAT:

1. All proper procedures and processes were followed, and this is a adoption of Ordinance 18-11.
2. The attached Annexation Petition, with the following legal descrition, be approved to annex into the City.

PART OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 17, T.11N., R.1E., S.L.B.&M,
BEGINNING AT A POINT ON THE SOUTH BOUNDARY OF LOGAN CITY LIMITS SAID POINT BEING WEST 660.00 FEET FROM THE EAST QUARTER CORNER OF SAID SECTION 17, THENCE ALONG THE SOUTH BOUNDARY OF LOGAN CITY WEST 660,00 FEET TO A POINT ON THE EXISTING NORTHERN BOUNDARY OF NIBLEY CITY, THENCE ALONG THE EXISTING BOUNDARY OF NIBLEY CITY THE FOLLOWING THREE (3) COURSES: (1) SOUTH 1320.00 FEET, (2) EAST 660.00 FEET, (3) NORTH 660.00 FEET; THENCE NORTH 660.00 FEET TO THE POINT OF BEGINNING.
THE ABOVE DESCRIBED PARCEL OF LAND CONTAINS 20.00 ACRES IN AREA, MORE OR LESS.

3. The area above shall be assigned the zone as Park/School

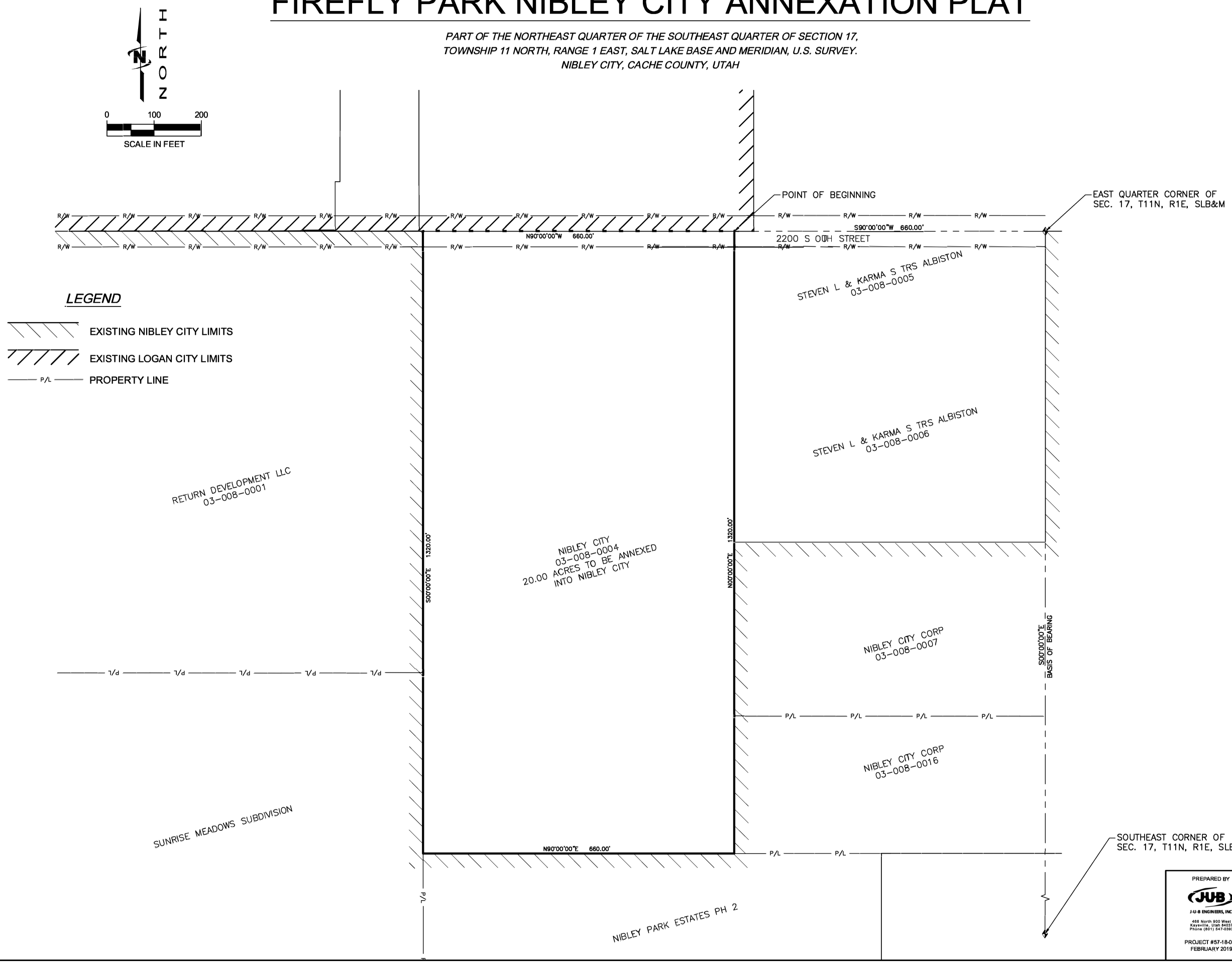
Passed by the Nibley City Council this day of , 2019.

_____
Shaun Dustin, Mayor

ATTEST:_____
City Recorder

FIREFLY PARK NIBLEY CITY ANNEXATION PLAT

PART OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 11 NORTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN, U.S. SURVEY. NIBLEY CITY, CACHE COUNTY, UTAH



SURVEYOR'S CERTIFICATE

I, DAVID D STRONG, DO HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR AND THAT I HOLD LICENSE NO. 5331568 IN THE STATE OF UTAH. I FURTHER CERTIFY THAT BY AUTHORITY OF THE OWNERS, A LOCAL ENTITY PLAT WAS MADE UNDER MY DIRECTION OF THE TRACT OF LAND SHOWN ON THIS PLAT AND DESCRIBED BELOW. I HEREBY STATE THAT THIS PLAT IS A TRUE REPRESENTATION OF THE LAND TO BE ANNEXED INTO NIBLEY CITY, CACHE COUNTY, UTAH.

REVIEW COPY

DAVID D. STRONG, PLS

DATE

BOUNDARY DESCRIPTION

PART OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 17, T.11N., R.1E., S.L.B.&M.

BEGINNING AT A POINT ON THE SOUTH BOUNDARY OF LOGAN CITY LIMITS SAID POINT BEING WEST 660.00 FEET FROM THE EAST QUARTER CORNER OF SAID SECTION 17, THENCE ALONG THE SOUTH BOUNDARY OF LOGAN CITY WEST 660.00 FEET TO A POINT ON THE EXISTING NORTHERN BOUNDARY OF NIBLEY CITY, THENCE ALONG THE EXISTING BOUNDARY OF NIBLEY CITY THE FOLLOWING THREE (3) COURSES: (1) SOUTH 1320.00 FEET, (2) EAST 660.00 FEET, (3) NORTH 660.00 FEET; THENCE NORTH 660.00 FEET TO THE POINT OF BEGINNING.

THE ABOVE DESCRIBED PARCEL OF LAND CONTAINS 20.00 ACRES IN AREA, MORE OR LESS.

NIBLEY CITY APPROVAL

THIS IS TO CERTIFY THAT WE, NIBLEY CITY COUNCIL, HAVE RECEIVED A PETITION SIGNED BY A MAJORITY OF THE OWNERS OF THE TRACTS SHOWN HEREON REQUESTING THAT SAID TRACTS BE ANNEXED TO NIBLEY CITY, AND THAT A COPY OF THE ORDINANCE HAS BEEN PREPARED FOR FILING HEREWITH ALL IN ACCORDANCE WITH THE UTAH CODE SECTION 10-2-403, AND THAT WE HAVE EXAMINED AND DO HEREBY APPROVE AND ACCEPT THE ANNEXATION OF THE TRACTS AS SHOWN AS A PART OF SAID CITY.

WITNESS MY HAD AND OFFICIAL SEAL THIS _____ DAY OF _____,2019.

APPROVED: _____
MAYOR

_____
RECORDER

CACHE COUNTY DEPUTY SURVEYOR

I CERTIFY THAT THIS OFFICE HAS EXAMINED THIS PLAT AND FOUND IT TO MEET THE REQUIREMENTS OF A FINAL LOCAL ENTITY PLAT.
SIGNED THIS _____OF _____, 2019

_____
CACHE COUNTY DEPUTY SURVEYOR

CACHE COUNTY RECORDER

ENTRY NO._____ FEE PAID _____
FILED FOR RECORD AND RECORDED THIS _____ DAY OF _____ , 2019 AT _____ IN BOOK _____OF OFFICIAL RECORDS PAGE _____

_____
CACHE COUNTY RECORDER

BY_____
DEPUTY RECORDER

PREPARED BY

J-U-B ENGINEERS, INC.
466 North 900 West
Kaysville, Utah 84037
Phone (801) 547-0393

PROJECT #57-18-014
FEBRUARY 2019

Agenda Item #9

Description	Discussion and Consideration of Ordinance 19-09: Nibley Design Standards and Specifications (First Reading)
Department	Public Works, Engineering and Planning
Presenter	Justin Maughan, Public Works Director
Recommendation	Move to approve Resolution 19-09: Nibley Design Standards and Specifications, for first reading.
Reviewed By	City Planner, Nibley City Public Works Director

Background

Nibley City's Public Works Department, Planning Department and Engineer have reviewed and made several updates and changes to the Nibley City Design Standards and Specification. These Design Standards and Specification provide further guidance and clarification on all infrastructure built within Nibley City. In order for the City to require these standards, the City Council must adopt them by resolution.

RESOLUTION 19-09

ADOPTING THE NIBLEY CITY DESIGN STANDARDS AND SPECIFICATIONS AND RELATED MATTERS

WHEREAS, Nibley City is authorized by Utah Code sections 10-3-702 and 10-3-711(2) and Nibley City Code 21.02.040(H) to establish the Nibley City Design Standards and Specifications providing building, safety, and design standards and regulations; and

WHEREAS, Nibley City desires to adopt the Nibley City Design Standards and Specifications, attached as Exhibit A, as previously compiled, filed, and provided for use and examination by the public in the office of the Nibley City recorder.

NOW, THEREFORE, be it ordained by the City Council of Nibley City, Utah, as follows:

1. The City Council finds that there is good cause and that it is in the interest of the public welfare, health, and safety to adopt the Nibley City Design Standards and Specifications, attached as Exhibit A.

2. All ordinances, resolutions, or parts thereof in conflict herewith are, to the extent of such conflict, hereby repealed and this Ordinance shall be in full force and effect immediately upon its approval and adoption.

PASSED BY THE NIBLEY CITY COUNCIL THIS _____ day of _____, 2019.

_____
Shaun Dustin, Mayor

ATTEST: _____
David Zook, City Recorder

Nibley City Design Standards

Justin Maughan, PE
Nibley City Public Works Director

05/19/2019
Date

These Design Standards, Construction Standards and Specifications shall govern the design and construction of all public infrastructure in Nibley City. These standards may be periodically updated and changed as deemed necessary. See www.nibleycity.com for the most current and up to date edition.

Table of Contents

Section

Section 1 – General Definitions

1.1 General Definitions.

1. **A Guide to Low Impact Development within Utah:** A reference manual created by Utah Department of Environmental Quality to guide and assist designers of LID practices. The guide can be found online at the DEQ website: https://deq.utah.gov/water-quality/low-impact-development
2. **Alley:** A public way used to provide secondary vehicular access to properties that also abut upon a street.
3. **Arterial Route or Street:** A general term including expressways and major arterial streets and interstate, state or county highways having regional continuity.
4. **Benchmark:** A mark affixed to a permanent or semi-permanent object along a line of survey to furnish a datum level. Nibley City base is 4546.58 feet (Nibley City GPS Monument).
5. **Block:** A piece or parcel of land or groups of lots entirely surrounded by public streets, streams, railroads or parks, or a combination hereof, other than alleys; or land which is designated or shown as a block on any recorded subdivision plat or official map or plat adopted by the council.
6. **Certified Percolation Test:** A saturated soil Double Ring Infiltration percolation test completed in accordance with Utah Administrative Rule, R317-4-5 with the exception that the test shall extend 2.0 feet below the bottom of the proposed invert of the pond. These tests shall be done in accordance with the certification requirements by a "qualified individual" as defined in R317-11.
7. **City Engineer:** The individual or firm appointed by the Council to be the City Engineer of the city.
8. **General Plan and Associated Master Plans:** A comprehensive plan, or parts thereof, providing for the future growth and improvement of the city and for the general location and coordination of streets and highways, schools and recreation areas, public building sites and other physical development, which shall have been duly adopted by the City Council.
9. **Planning Commission:** The Nibley City Planning Commission sometimes referred to hereinafter as the Commission.
10. **Collector Street:** A street that provides for traffic movement within neighborhoods of the city and between major streets and local streets and for direct access to abutting property.
11. **Conditional Approval:** An affirmative action by the City Planning Commission or City Council, indicating that approval will be forthcoming upon satisfaction of certain specified stipulations.
12. **Corner Lot:** A lot abutting on two (2) or more intersecting streets where the interior angle or intersection does not exceed one hundred thirty-five degrees (135 degrees). A corner lot shall be considered to be in that block in which the lot fronts.
13. **Council:** The governing body of the City.
14. **Curb or Curb and Gutter:** Sections of concrete that define and help to maintain the edges of asphalt road surfaces. The concrete sections may be flat or of a high

Commented [SN1]: Definitions needed

Access Road
Update Block based on deffiantion in Subdivision code
Flag Lot
Frontage
Minor Subdivision

back style. See street cross-section drawings and details located in section 3, standard drawing list.

15. **Development Master Plan (DMP):** A preliminary master plan for the development of a large, unusual or complicated land area, the platting of which is expected in progressive stages. A DMP may be designed by the subdivider, planner and engineer and shall be subject to approval of the Commission.
16. **Detention:** The detaining or holding of water on site and releasing the water from the site into a pipeline, channel, or other water bodies at a slower rate than would otherwise occur.
17. **Detention Basin:** A pond or basin, either above ground or below, that catches the storm water runoff from a contributing area and uses the detention process.
18. **DEQ:** Utah Department of Environmental Quality
19. **DWQ:** Utah Division of Water Quality, a division of the DEQ.
20. **Easement:** A grant by the owner of the use of a parcel of land by the public, a corporation, or persons for specified use and purposes so designated on a plat.
21. **EM 1110-2-1601:** Engineering and Design – Hydraulic Design of Flood Control Channels, CECW-EH-D, US Army Corp of Engineers, June 1994
22. **Engineer:** The duly appointed and acting City Engineer.
23. **Engineering Plans:** Plans, profiles, cross-sections and other required details for the construction of public improvements, prepared by a registered engineer in accordance with the approved preliminary plat and in compliance with existing standards of design and construction by the Council.
24. **EPA:** United States Environmental Protection Agency
25. **Final Approval:** The approval of the final plat by the Council, as evidenced by certification on the plat by the Mayor of the city and all other required city officials as agents.
26. **Final Plat:** A map of all or part of a subdivision providing substantial conformance to an approved preliminary plat, prepared by a registered professional engineer or a registered land surveyor in accordance with the city's subdivision ordinance.
27. **HEC-11:** Design of Rip-Rap Revetment, Hydraulic Engineering Circular No. 11, US Dept. of Transportation, Federal Highway Administration. (FHWA-IP-89-016, March 1989)
28. **HEC-22:** Urban Drainage Design Manual, Hydraulic Engineering Circular No. 22, US Dept. of Transportation, Federal Highway Administration. (FHWA-SA-96-078, August 2001).
29. **HISTORICAL RUNOFF FLOW:** The runoff that has historically flowed off of a given piece of land in the specified storm frequency and duration prior to development, either in the land's pre-development agricultural or native condition.
30. **Improved Lot:** A lot that has all the improvements required by the subdivision ordinances.
31. **Interior Lot:** A lot having but one (1) side abutting on a street.
32. **Irrigation Facilities:** Includes canals, laterals, ditches, conduits, gates, pumps, and allied equipment necessary for the supply, delivery and drainage of irrigation water.
33. **Land Exception:** Any parcel of land that is within the boundaries of the sub- division that is not owned by the subdivider.

34. **Local Street:** A street that provides for direct access to residential, commercial, industrial or other abutting land and for local traffic movements and connects to collector and/or major streets.
35. **Lot:** A piece or parcel of land separated from other pieces or parcels by description, as in a subdivision or on a record survey map, or by metes and bounds, for purposes of sale, lease or separate use.
36. **Lot width:** The width of a lot that shall be:
    a. If the side property lines are parallel, the shortest distance between these sidelines
    b. If the side property lines are not parallel, the width of the lot shall be the length of a line at right angles to the axis of the lot a distance equal to the front setback required for the district in which the lot is located. The axis of the lot shall be a line joining the mid-points of the front and rear property lines.
37. **Low Impact Development** – Low Impact Development - refers to engineered systems, either structural or natural, that use or mimic natural processes to promote infiltration, evapotranspiration, and/or reuse of storm water as close to its source as possible to protect water quality and aquatic habitat. LID practices at the regional and site-specific level preserve, restore, and create green space using soils, vegetation, and rainwater harvesting techniques
38. **Major Street:** A street, existing or proposed, which serves or is intended to serve as a major traffic way and which is designated on the master street plan as a controlled-access highway, major street, parkway or by equivalent terms suitable to identify street comprising the basic structure of the street plan.
39. **Marginal Access Street:** A minor street parallel and adjacent to an arterial route that provides access to abutting property and intercepts local streets and controls access to an arterial route.
40. **Minor Street:** A street, existing or proposed, which is supplementary to a collector or major street and of limited continuity, which serves or is intended to serve the local needs of a neighborhood.
41. **Mobile Home Subdivision:** A subdivision designed and intended for residential use where residence is primarily to be in mobile homes.
42. **Neighborhood Plan:** A plan to guide the platting of remaining vacant parcels in a partially built up neighborhood, so as to make reasonable use of all land, correlated street patterns, and achieve the best possible land use relationships.
43. **NOI:** A notice of intent to construct permit obtained from the DWQ which is required for all construction on areas greater than or equal to 1.0 acres.
44. **NOT:** A notice of termination to construction submitted to the DWQ upon the stabilization of 70 percent of the project site that required a NOI.
45. **Official Map:** Any map adopted by the Council under the provisions of Title 17, Chapter 27, Section 7 Utah Code Annotated, 1953 as amended.
46. **One Way Drive Way –** also known as circular driveways, are intended to allow a driver to exit a public right of way and reenter at a different location without having to back out.
47. **Owner:** The person or persons holding title by deed to land, or holding title as vendees under land contract, or holding any other title or record.

Commented [SN2]: What is Major street? Should we change Major and minor street to meet local, collector, and arterial?

Commented [SN3R2]: Change to match Street Master Plan

48. **Parcel of Land:** Contiguous quantity of land, in the possession of, or owned by, or recorded as the property of, the same claimant or person.
49. **Partial Cul-de-sac:** Cul-de-sac, or bulb out located any other location than at the end of a dead end street.
50. **Pedestrian Path/Trail:** A concrete, asphalt, or gravel path designated for a variety of non-motorized uses.
51. **Pedestrian Way:** A public walk dedicated through a block from street to street and/or providing access to a school, park, recreation area or shopping center.
52. **Planned Unit Development:** A use or combination of uses planned for a tract of land to be developed as a unit.
53. **Park/Planting Strip:** Planting strips are the area between the curb and the sidewalk along conventional streets. See street cross-section drawings and details located in section 3, standard drawing list.
54. **Plat:** A map of a subdivision prepared in accordance with standards of the subdivision ordinance.
55. **Preliminary Plat:** A preliminary map, including supporting data, indicating a proposed subdivision development, prepared in accordance with this ordinance and Utah Code.
56. **PWD:** Public Works Department
57. **Recorded Plat:** A final plat bearing all of the certificates of approval required in this title and duly recorded in the county recorder's office.
58. **Retention:** The retaining or keeping of water on site and preventing its release from the site by any method other than infiltration or evaporation.
59. **Retention Basin:** A pond that is built to capture and retain the design storm on site and dispose of it through infiltration.
60. **Return Frequency:** The frequency or likelihood of a storm of occurring. A 100-year storm has a one (1) percent chance of occurring in any given year while a 10-year storm has a ten (10) percent chance of occurring in any given year. This should never be interpreted as happening only once every 100 or 10 years for the two given examples.
61. **Sidewalk:** A concrete surface along side the planting strip or swales of a street or roadway designated for pedestrian traffic. See street cross-section drawings and details located in section 3, standard drawing list.
62. **Source Protection Zone:** Drinking water source protection zones to delineate area's of land that contribute to groundwater recharge as defined by the maps on file with State of Utah Division of Drinking Water.
63. **Spread Width:** The width of water flow as measured from the flow line of the gutter into the asphalt.
64. **Stream Alteration Permit:** A permit that is obtained through the Utah Division of Water Rights and is necessary anytime construction impacts a stream, wetland, riparian zone, or other water body defined as the waters of the U.S.
65. **Street:** Any street, avenue, road, lane, parkway, place, viaduct, easement for access or other ways which is an existing state, county, or municipal roadway; or a street or way shown in a plat heretofore approved pursuant to law or approved by official action; or a street or way in a plat duly filed and recorded in the county recorder's office. A "street" includes the land between the right-of-way lines, whether

improved or unimproved and may comprise pavement, shoulder, curbs, gutters, sidewalks, parking areas and lawns.

66. **Storm Event:** The event and hyetograph that define the design volume of precipitation, duration of the storm, intensity of the storm, and the pattern in which the precipitation falls.
67. **Subdivider:** The individual, firm, corporation, partnership, association, syndication, trust or other legal entity that executes the application and initiates proceedings for the subdivision of land in accordance with the provisions of this title.
68. **Subdivision:** The division of a tract, lot, or parcel of land owned by a person or legal entity as an undivided tract or parcel into two or more lots or other divisions of land for the purpose of the sale, lease, transfer, use building development, or redevelopment thereof, whether immediate or future. This definition shall not apply to the sale, lease, transfer, use, building development, or re-development of any existing lot that is shown as one of the lots of a subdivision in an approved final plat that has previously been recorded in the offices of the city and county recorders. The word "subdivide" and any derivative thereof shall have reference to the term "subdivision".
69. **Swale**: The area between the curb and the sidewalk or pedestrian path as used in low impact development (LID). Swales may also be located along private roads and drives. Swales are not always located between the sidewalk and street, but they do almost always run parallel with the street.
70. **SWPPP:** A storm water pollution prevention plan which is required on any construction site.
71. **Through lot:** A lot abutting two (2) parallel or approximately parallel streets.
72. **Underground Injection/Retention System:** A system designed to be fully underground and to dispose of water, entirely or in part, through infiltration. These require a special permit from the DWQ known as a Class 5 injection well permit.
73. **Underground Injection Well:** A facility, such as a pressured injection well, free draining injection well, sump, or other buried underground facility that infiltrates or injects surface water into the subsurface or groundwater system to eliminate surface runoff.
74. **Useable Lot Area:** That portion of a lot which is usable for or adaptable to the normal uses of residential property, excluding any areas which may be covered by water, excessively steep, or included in certain types of easements.
75. **Utilities:** Installations or facilities, underground or overhead, furnishing for the use of the public electricity, culinary water, gas, communications, water drainage, sewage disposal or flood control, owned and operated by any person, firm, corporation, municipal department or board duly authorized by state or municipal regulations. Utility or utilities as used herein may also refer to such persons, firms, corporations, departments, or boards as applicable herein.
76. **Wetlands Mitigation, or 404, Permit:** A permit obtained through the US Army Corp of Engineers which allows the wetlands to be impacted and provides for required mitigation before the project can be approved.
77. **Zone 1:** Zone 1 as delineated and shown on Source Water Protection Zone map approved by the Utah Division of Drinking Water.

78. **Zone 2.** Zone 2 as delineated and shown on Source Water Protection Zone map approved by the Utah Division of Drinking Water.

Section 2 - Development Standards

2.1 Engineering Reasonability

A. The City's Design Standards do not relieve the developer's engineer from being responsible for examining and understanding local project conditions, confirming the correlation of all design standards with the techniques of construction, coordination of the standards with that of all other industry standards, and for the complete and satisfactory design of the project.

2.2 Issue's not covered by these standards

A. All work not specifically described in these design standards and technical specifications shall conform to the APWA Manual of Standard Specifications as published by the Utah Chapter of the American Public Works Association. The latest edition referenced by these standards shall be used.

2.3 Impact on Existing Infrastructure

A. The impact on existing infrastructure, will be reviewed by the City. The developer may be required to add additional off-site improvements in order to provide adequate service to the development.

2.4 Compliance with City Subdivision Ordinance

A. Included herein by reference is the current Nibley City Zoning and Subdivision Ordinances as approved by the City Council. If a discrepancy exists between these design standards and the subdivision ordinance, the ordinance shall govern.

2.5 Compliance with City General Plan and Master Plans

A. All Subdivisions shall comply with the City's most recent General Plan and associated Master Plans.

2.6 Required Studies, reports and plans: The following studies, reports, and plans shall be required on all developments, if in the opinion of the City Engineer, Public Works Director and/or City Council; they are determined to be necessary for the development of the project:

A. Geotechnical Report. A geotechnical report shall be prepared by a qualified engineer, and must contain at least the following information:
   1. A slope Analysis with a contour map
   2. Classification of slopes on the site
      a. Class 1: Areas of Non-Steep slopes - less than 30%
      b. Class 2: Areas of steep slopes - 30% or greater

**Note: Percentages shall be calculated as prescribed by the definition for "Steep Slopes". If the subdivision contains any areas of steep slopes, the person or firm preparing the soils report shall identify the class 2 areas, and should designate those areas as "Non-Buildable Areas" on the subdivision plat. If in the opinion of the qualified engineer any class 2 areas should not be designated as non-buildable areas, the report should include reasons why an exception should be made. The City Engineer will have final determination of such areas. **

3. Soils Engineering properties including, but not limited to:
    a. Bearing capacity
    b. Settlement potential
    c. Slope failure potential
    d. Shrink/swell potential of the site.

Note: Testing should be completed adequately to determine if the existing soil on the site is suitable for public infrastructure. If there any indications that the soil is not suitable for the type of development, the report shall include mitigation strategies for public infrastructure. In such a case, the Final Plat shall also put owners on notice that building on these soils will require on-site investigation and lot-specific soils hazard mitigation plans.

4. An estimate of the normal highest elevation of the seasonal high-water table based on piezometer-tube testing and the locations of swamps, seeps or springs with the reasons for the occurrence of these underground water sources.
5. Percolation test performed by a certified testing agency.
6. A written statement of the person or firm preparing the geotechnical report identifying any other means proposed to minimize hazards to life, property, and adverse effects on the safety, use or stability of public rights of way or drainage channels, and adverse impacts on the natural environment.

B. Geologic Hazard Report. A geologic hazard report shall be prepared by a person or firm qualified by training and experience to have expert knowledge of geologic hazards and must identify the author and date of the data upon which the report is based. The report must include an analysis of the geologic conditions, conclusions regarding the effect of the geologic conditions on the development and recommendations covering the adequacy of sites to be developed within a recognized geologic hazard. It shall also include a written statement identifying the means proposed to minimize hazards to life or property, adverse effects on the safety, use, or impacts on the natural environment.

C. Water Conservation Plan. A water conservation plan shall contain an assessment of the potential outside culinary water use for the subdivision and recommendations for lot size, landscaping, and irrigation practices to minimize culinary water use. For land with irrigation water rights the conservation plan should contain an assessment and recommendations for development of a secondary water system.

D. Traffic Report. A Traffic report shall describe the traffic impacts that will be created by the project including but not limited to peak period trip generations rates, impacts on turning movements and road segment level of service and proposals to mitigate the impacts.

E. Fire Protection Plan. Fire Protection plan shall be required by any subdivision that in the opinion of the City Fire Authority may be susceptible to wild fire. The plan shall include as a minimum the plans for any needed firebreaks and planned fire-wise construction and/or landscaping for the subdivision.

2.7 Non Buildable Area's. Non-buildable areas shall be designated on the preliminary and final plat by shading and shall have a designation of "Non-Buildable" shown on the plat. Final determination will be made by Public Works Director.

A. The areas with the following characteristics will be considered for designation as Non-Buildable:
   1. Areas of Steep Slopes as defined in Nibley City Design Standards Definitions
   2. Areas with soils found to be unsuitable for development by a Geotechnical Report
   3. Natural drainage corridors, canal channels and wetlands
   4. Any areas identified by any required studies as potentially hazardous to life, limb or property
   5. Fire Breaks
B. No homes, buildings, or other structures, streets or alleys shall be erected or built on areas designated and platted as "Non-Buildable".

2.8 Utilities. To the maximum extent practical, all utilities shall be placed within existing road rights of way and front yard public utility easements. All water, sewer, electrical, telephone, natural gas, cable television, communications and other utilities shall be placed underground except for transformers, pedestals, and other appurtenances which are normally located above ground.

2.9 Easements. In the event that all utilities are not able to be placed within existing road rights of way or easements, a min 20 foot wide utility easement shall be required (10 feet on each side of the utility), and recorded at the Cache County Recorders Office.

Section 3 – Drawing Requirements – Plat & Construction

3.1 Final Plat Signature Boxes.

A. Surveyor's Certificate: the form of the professional surveyor's certificate shall be substantially as follows:

SURVEYOR'S CERTIFICATE

I, _____, a Registered Land Surveyor, hold Certificate No._____, as prescribed by the laws of the State of Utah, and do hereby certify that by authority of the owners, I have made a survey of the tract of land shown on this plat, which is accurately described therewith, and have subdivided said tract of land into lots and streets to be hereafter known as _____, and that the same has been surveyed and staked on the ground as shown on this plat.

Signed on this _____day of _____, 20___

B. Owners Dedication: A specific statement of dedication of all streets, alley, crosswalks, drainage ways, pedestrian ways and other easements for public use by the person holding title of record, by persons holding title of record, by persons holding title as vendees under land contract, and by wives of said parties shall be required. If land dedicated are mortgaged, the montaged shall also sign the plat, and if subject to a Real Estate Contract, the seller or actual owner of the real property being subdivided shall also sign the Final Plat. Dedication shall include a written location by section, township and range, of the tract. If the plat contains private streets, public utilities shall be reserved the right to install and maintain utilities in the street right-of-way. The form of the owner's dedication shall be substantially as follows:

OWNER'S DEDICATION

Know all by these presents that we the undersigned owners of the above described tract of land, having caused the same to be subdivided into lots and streets to hereafter be known as _____, do hereby dedicate for perpetual use of the public all parcels of land shown on this plat as intended for public use, and do warrant, defend and save the municipality harmless against any easements or other encumbrances on the dedicated streets which will interfere with the municipality's use, operation and maintenance of the streets and do further dedicate the easements as shown, with the same warranty as given for other dedicated property.

In witness whereof, we have hereunto set our hands this _____day of _____, 20_____.

_____

Signed

_____

Signed

C. Required Acknowledgements

1. Acknowledgement

STATE OF UTAH)

ss._____

COUNTY OF CACHE)

On the _____Day of _____ A.D., 20_____, personally appeared before me, the signer(s) of the above Owner's Dedication, who duly acknowledged to me that he/she/they signed it freely and voluntarily and for the uses and purposes therein mentioned.

_____

Notary Public

2. Corporate Acknowledgement

a. STATE OF UTAH)

ss._____

COUNTY OF CACHE)

On the _____Day of _____ A.D., 20_____, personally appeared before me,

_____and_____,

who acknowledged to me that they are the _____ and _____ of corporation, that they signed the Owner's Dedication freely and voluntarily and for and in the behalf of the corporation for the purposes therein mentioned an d that the corporation executed the same.

_____

Notary Public

b. The form of a corporate, partnership, or other entity signature shall include a provision or a Notary in which the subdivider represents that the person signing for the corporation, partnership, or other entity has the authority to execute the agreement for the corporation, partnership, or other entity.

E. Engineer's Certificate: the form of the Engineers Certificate shall be substantially as follows:

Engineers Certificate

I certify that I have examined this plat and find it to be correct and in accordance with the information on file in this Office and the city ordinance.

_____ _____
City Engineer Date

F. Utility Company Approvals: All utility companies must acknowledge and accept the easements as shown on the final plat. At a minimum the following company's signatures must be obtained:

Utility Company Approvals

_____ _____
Questar Gas Date

_____ _____
Rocky Mountain Power Date

_____ _____
Century Link Date

_____ _____
Comcast Communications Date

G. Planning Commission Approval and Acceptance: the form of the Planning Commission Approval and Acceptance shall be substantially as follows:

Planning Commission Approval and Acceptance

Presented to the Nibley City Planning Commission this _____ day of _____, 20_____, at which time this subdivision was recommended to the City Council for approval.

_____ _____
Planning Commission Chairman Date

H. City Council Approval and Acceptance when required by ordinance: the form of the City Council Approval and Acceptance shall be substantially as follows:

City Council Approval and Acceptance

Presented to the Nibley City Council this _____ day of _____, 20_____, at which time this subdivision was approved and accepted.

_____ _____
Mayor Date

I. Attorney Approval: the form of the City Attorney Approval and Acceptance shall be substantially as follows:

Attorney Approval

Approved as to form this _____ day of _____, 20_____.

_____ _____
City Attorney Date

J. County Recorders No: the form of the Cache County Recorder's No shall be substantially as follows:

County Recorders No.

State of Utah, County of _____, recorded and filed at the request of: _____

Date: _____ Time: _____ Fee: _____

Abstracted_____

Index_____ _____
Filed in: File of plats County Recorder

K. Ground Water Note: This note shall be required on all plats.

Groundwater Note:

Areas in Nibley City have groundwater problems due to the varying depths of a fluctuating water table. The city's approval of a building permit or construction plans does not constitute a representation by the city that building at any specified elevation or location would solve subsurface or groundwater problems. In addition, concerns for building elevation and/or grading and drainage are unique to each building lot and site. Responsibility for these stated concerns, and all other such concerns related to a lot or other building site, remains solely with the building permit applicant, property owner and/or contractor. Nibley City is not responsible for any subsurface or groundwater problems which may occur, nor for other such concerns, including, but not limited to, building location and/or elevation, site grading, and drainage.

M. Other Notes required per Ordinances

3.2 Construction Plan Requirements

A. Plan views of the street improvement shall be to a scale not greater than 1"=50' on new subdivisions and street improvements and shall contain the following information:
   1. Any existing street curbs, driveways, and property lines, right-of-way, and utility easements referenced to property corners, street intersections, or section lines within 300-feet of proposed construction. Running grade, existing cross slopes, and curb elevations shall be required to determine if finished design grades will provide a smooth transition from existing to new construction.
   2. Catch points and limits of slope for all cuts and fills.
   3. Location and sizes of water courses, stream and railroad crossings, water mains, culverts, sanitary sewers, and storm sewers, including any of the mentioned pipe inverts within 300-feet of the proposed project. Use arrows on both existing watercourses and storm drains, and on proposed storm drains, indicating direction of flow.
   4. Location of wells (public or private), gas mains, underground power, and any other utility (public or franchised) within 100-feet of the proposed project.
   5. On horizontal curves, show stationing of the point of tangency and the point of curvature. Show the length of tangent, length of centerline curve, the delta angle, radius point, and centerline radius distance.
   6. On half or three-quarter street improvements show the existing centerline, edges of pavements, and the extent of the proposed widening, i.e. the location of the opposite curb and right-of-way. Show running and cross slopes of all proposed and existing surfaces, sufficient to show proper slopes of tie ins and transitions.
   7. Show all ADA ramps on each curb radii.
   8. The location of each manhole, catch basin, beginning and end of radius, point of curvature, and point of tangent shall be stationed to facilitate checking the plans with the profiles. The stationing shall be tied to existing property corners, centerline, centerline of intersections, and/or street monuments.
   9. Side streets shall be stationed at the centerline of the intersection.

B. Profile Views. Profiles for the individual street shall be to the same horizontal scale on the same sheet and drawn immediately below the corresponding plan view to a vertical scale of 1"=5' reading from 0+00 left to right (where conditions warrant, right to left

may be approved as well as a different vertical scale), and shall contain, in addition to the above, at least the following information:

1. Location of catch basins, manholes, and other appurtenances with each numbered and stationed.
2. Profile of existing and finished ground line at property line and/or pavement, left and right curb line, and proposed centerline.
3. Percent of all street grades.
4. Beginning of all vertical curves, points of vertical intersection, ends of vertical curve, low point of vertical curve (if a sag curve) and length of vertical curve.
5. Design speed used and "K" value applied.
6. On half street or three-quarter improvements show elevations of the centerline, edge of pavement, and proposed top of curb for 300-feet in each direction of the improvement. Show running and cross slopes of all proposed and existing surfaces, sufficient to show proper slopes of tie ins and transitions.
7. Profiles on stub streets shall be shown 300-feet past the terminus of the street.
8. Street Transitions Street tapers to match new or widened streets to existing adjacent street improvements shall normally be in accordance with AASHTO standards, but shall be a minimum of 10:1 for Local Streets and 20:1 for Collector and Arterial Streets.

SPECIAL NOTE: The design engineer shall field locate and verify the alignment, depth, and inverts of all existing facilities shown on the plans that will be crossed by proposed facilities and shall certify them with a note on the plans. City as-builts are only to be used as an aid to the design engineer when field verifying the existing facilities

Section 4 – Water Design Standards

4.1 Purpose

A. The purpose of this rule is to provide specific requirements for the design and installation of transmission and distribution pipelines in Nibley, in compliance with City and State standards and rules. These standards are intended to follow state rules and assure that facilities are reliably capable of supplying water in adequate quantities, consistently meeting applicable state drinking water quality requirements, and not posing a threat to general public health.

4.2 Water Main Design

A. System Pressure
   1. Water main lines shall be designed to maintain minimum and maximum pressures as required in Utah State code R309-105-9, under all conditions of flow.

B. Hydraulic Analysis
   1. At the expense of the developer, any proposed water lines shall be added to the Cities existing hydraulic model, and analyzed to ensure proper pressures and flows as regulated by the State of Utah.

C. Minimum Water Main Size
   1. Minimum Water Main Size shall be 12 inches in commercial or industrial zones and 8 inches in all other zones.

D. Materials
   1. Rated for 200 psi min
   2. All pipe shall be colored blue
   3. Shall be C-900 or C-905 PVC

4.3 Fire Protection & Hydrants

A. The design of water mains shall be consistent with the state fire flow requirements and pressure as determined by the local fire authority.
B. The location of fire hydrants shall be consistent with the requirements of the State adopted fire code and as determined by the Local Fire Authority, but in no case shall be farther than 500 feet apart in residential zones and 250 feet apart in commercial or industrial zones.
C. Fire Hydrant Laterals shall be min of 6 inches in diameter.
D. Shall not be connected to or located within 10 of sanitary sewers.
E. Auxiliary valves shall be installed on all hydrant laterals.
F. Drains shall be installed with a gravel packet unless the natural soils will provide adequate drainage.
G. All hydrants shall be compression type, Muller Super Centurion Model A-423.

4.4 Dead Ends

A. Water mains should be looped whenever practical. Dead end lines will be limited to select circumstances as determined by the Public Works Director.
B. Where dead ends occur, they shall be provided with a fire hydrant
C. No flushing devices of any kind shall be directly connected to a sewer.
D. Temporary dead ends
    1. Shall be allowed for construction purposes
    2. Flushing devices for construction
        a. 2 inches for 8 inch and 10 inch water main
        b. 4 inches for 12 inch and larger

4.5 Isolation Valves

A. Sufficient number of valves shall be provided on water mains so that inconvenience and sanitary hazards will be minimized during repairs. Valves shall be located at not more than 500 foot intervals in commercial and industrial zones and at not more than one block or 800 foot intervals in other zones.
B. Isolation valves shall be installed on all legs of water lines at an intersecting location, unless otherwise approved by Public Works Director.
C. Gate Valves required on 10 inch lines and smaller.

4.6 Materials

A. All materials that may come in contact with drinking water shall be stamped with the NSF logo certifying that the material meets the requirements of ANSI/NSF Standard 61.
B. All pipes and fittings shall be "lead free" in accordance with section 1417 of the Federal Safe Drinking Water Act.
C. Previously used materials are not allowed

4.7 High Points in Line

A. At high points where air can accumulate, provisions shall be made to remove air by means of a hydrant or air relief Valve.

4.8 Air Relief Valve

A. The open end of air relief vent pipe from automatic valves shall be provided with a #14 mesh, non corrodible screen and a downward elbow extended to at least one foot above grade.
B. Shall not be directly connected to the sewer.
C. Shall be installed in a manner to prevent it from freezing
D. Shut off valve required

4.9 Chamber Drainage – chambers, pits or manholes containing valves, blow-offs, meters or other such appurtenances

A. Shall not be connected directly to a sanitary sewer.
B. Provided with a drain to daylight if possible. Where not possible, absorption pits may be used if the site is not subject to flooding, and or a pump system installed.

4.10 Control Valve Stations

A. Pressure Reducing Valves (PRVs)
1. Isolation valves shall be installed on both sides of the pressure reducing valve.
2. Parallel PRV lines to accommodate low and high flow conditions shall be required.

4. Electronic pressure gauge shall be installed up stream and downstream of PRV, and both shall be tied into City SCADA system.
5. Flow monitoring device shall be required and tied into City SCADA system.

4.11 Backflow Devices

A. Shall conform to the State-adopted plumbing code.

4.12 Water Services

A. Corporation Stops
1. Shall be Mueller I.P. Thread/110 conductive compression corporation stops (H-15010)
2. Shall be installed at both ends of the service line
B. Unions and Couplings
1. Shall be Mueller H-15403, H-15428 and H-15451 or approved equal
C. Service Clamps
1. Shall be Mueller DR-25 Series double strapped
D. Service Line
1. Shall be Pure-Core Blue High Density Polyethylene with a 200 PSI rating
2. Tracer wire Required and shall be installed above the service line and attached to the setter with a grounding clamp
3. Warning tape required
4. Shall be installed continuously from the main line to the meter setter, with no joints
5. For new installs, shall be ran perpendicular with the centerline of road
6. Shall be installed 10 feet inside of the property line of the lot being served.
E. Setters
1. Shall be copper Mueller H-1424
F. Meter Vaults – 1”
1. Shall be 21 inch, white PE pipe
2. Shall be installed 5 feet behind sidewalk in public utility easement
3. Finished grade of meter lid shall be within one inch of nearest concrete surface. If no concrete exists, finished grade shall be within one inch of surrounding existing surface.

G. Water Meters
   1. Shall be provided and installed by the City upon payment of appropriate fee's
H. Connections from the water meter setter and private buildings shall conform to Adopted plumbing code, and inspected by building inspector at time of installation.
I. Meter Vault Lids
   1. Shall have a 2" recessed hole for meter antenna

4.13 Multifamily Dwellings

A. Four-plex units and smaller
   1. Shall have individual water services and 1" meters to each unit
B. Five-plex and larger
   1. Shall be allowed to have a common master meter, but shall provide means for turning off individual units
   2. Property owners shall be responsible for the maintenance of the valves to the individual units

4.13 Separation from Sewer

A. Water mains shall be a min of ten feet min horizontally from sewer
B. Water mains shall be a min of 18 inches above sewer if they cross
C. Water lines and sewer lines shall not be installed in the same trench
D. If the basic separation standards as outlined cannot be met, an exception to the rule can be applied for with additional mitigation measures to protect public health, in accordance with Utah State Code R309-105-6(2)(b)

4.14 Cover

A. 5 feet of earth
B. Other insulation to prevent freezing as approved by Public Works Director

4.15 Thrust Blocking

A. Required on all tees, bends, plugs, hydrants per APWA plan No 561 and 562

4.16 Surface Water Crossings

A. Shall follow State of Utah R309 rules and to be approved on a case by case basis.

4.17 Individual Home Booster Pumps

A. Not Allowed

Section 5. Sewer Design Standards

5.1 GENERAL

A. Construction of a sewer project may not begin until the applicant has submitted detailed design and construction drawings to the City Engineer, and received a copy of the approved set of drawings, that have been stamped and signed by the City Engineer .
B. Sewer services to residential households do not constitute a sewer project, and will not generally be reviewed by the City Engineer.
C. Storm water and ground water shall not be allowed to enter the sanitary sewer system, unless approved by Public Works Director per Nibley City Code 15.04.060.
D. Each individually owned unit shall have a separate sewer line connected to the public sanitary sewer system unless otherwise approved by Public Works Director.
E. All connections to the public sanitary sewer system shall be constructed by a licensed professional contractor.
F. Sewer laterals shall be backfilled to the same standards as the sewer main line and other pipes.
G. Wastes detrimental to the public sanitary sewer system or plant shall not be discharged into the sanitary sewer system.
H. Property owners are responsible for maintenance of sewer laterals from the public right of way, to the residence.
I. Property owners are responsible for the maintenance of all pretreatment facilities including but not limited to: grease traps, sand separators, oil separators, or clarifiers connected to their facilities.
J. All permits shall be secured and fees shall be paid before any work is commenced on a sewer connection.

5.2 BASIS OF DESIGN

A. Planning Period
    1. Sewers shall be designed for the estimated ultimate tributary population. The City Engineer may approve the design for reduced capacities provided the capacity of the system can be readily increased when required. The maximum anticipated capacity required by institutions, industrial parks, etc. must be considered in the design.
B. Sewer Capacity
    1. The required sewer capacity shall be determined on the basis of peak hour sewage flow.
C. Per Capita Flow
    1. Residential sewer systems shall be designed on the basis of an annual average daily rate of flow of 100 gallons per capita per day.
D. Design Flow
    1. Residential laterals and collector sewers shall be designed with a peak hour factor of 4.0.

2. Interceptors and outfall sewers shall be designed with a peak hour factor of 2.5
3. Commercial and industrial capacities shall be calculated and documented by the Engineer or Architect based on fixtures and any expected process or wash down flows. Calculations shall not be considered final until approved by the City Engineer.
4. The City Engineer will consider other rates of flow for the design if such basis is justified on the basis of supporting documentation.

E. Design Calculations
1. Detailed computations, such as the basis of design, average and peak flow calculations and hydraulic calculations showing depth of flow, velocity, water surface profiles, and gradients shall be submitted with the construction plans.

5.3 DESIGN AND CONSTRUCTION DETAILS

A. Minimum Size
1. No publicly dedicated gravity sewer main shall be of less than eight inches in diameter.
2. No private gravity sewer main shall be of less than six inches in diameter.

B. Depth of Bury
1. Sewer Main lines shall be buried a minimum of four feet deep, unless otherwise approved by the City Engineer.
2. Depths of Master Planned sewer trunk lines shall be of sufficient depth to follow plan, per City Engineer.

C. Slope
1. The pipe diameter and slope shall be selected to obtain velocities to minimize settling problems.
2. All sewers shall be designed and constructed to give mean velocities of not less than 2 feet per second.
3. Unless otherwise approved and/or required by the City Engineer, sewer lines six through fifteen inches in diameter shall be designed to flow no more than half full during peak flow. Sewer lines larger than fifteen inches in diameter shall be designed to flow three-fourths full.
4. Table 1.3.D.4 shows the minimum slopes which shall be provided; however, slopes greater than these are desirable.

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Table 1.3.D.4 - Minimum Slopes	
Inch	Feet/Feet
6	.01
8	0.004

10	0.0028
12	0.0022
15	0.0015
18	0.0012
21	0.0010
24	0.0008

5. Sewers shall be laid with uniform slope between manholes.

D. Flatter Slopes
   1. Slopes flatter than those required for the 2-feet-per-second velocity criterion, may be permitted by the City Engineer provided that:
      a. there is no other practical alternative;
      b. the depth of flow is not less than 30 percent of the diameter at the average design rate of flow;
      c. the design engineer has furnished with the report the computations showing velocity and depth of flow corresponding to the minimum, average and peak rates of flow for the present and design conditions in support of the request for variance

E. Steep Slopes
   1. Where velocities greater than 15 feet per second are attained, special provision shall be made to protect against displacement by erosion and shock.
   2. Sewers on 20 percent slopes or greater shall be anchored securely against lateral and axial displacement with suitable thrust blocks, concrete anchors or other equivalent restraints, spaced as follows:
      a. Not over 36 feet center to center on grades 20 percent and up to 35 percent;
      b. Not over 24 feet center to center on grades 35 percent and up to 50 percent;
      c. Not over 16 feet center to center on grades 50 percent and over.
   3. Where velocities greater than 15 feet per second are attained drop manholes may be used. Drop manholes may not be used under any other circumstances unless approved by City Engineer

F. Alignment
   1. Sewers shall be located under the paved streets or roads to allow access of maintenance equipment under all weather conditions, unless otherwise approved by the City Engineer.
   2. Sewers shall be laid with a straight alignment between manholes.

G. Changes in Pipe Size
   1. When a smaller sewer joins a large one, the invert of the larger sewer should be lowered sufficiently to maintain the same energy gradient, and shall be documented by the design engineer in plan details and the hydraulic grade lines.

H. Materials

1. The material of pipe selected should be suitable for local conditions. The material of sewer pipe should be compatible with factors such as industrial wastewater characteristics, putrecibility, physical and chemical properties of adjacent soil, heavy external loading, etc.
2. The material of pipe must withstand superimposed loads without any damage. The design of trench widths and depths should allow for loads. Special bedding, concrete cradle or encasement, or other special construction may be used to withstand extraordinary superimposed loading.
3. Unless otherwise approved by City Engineer, all sewers shall be constructed of green SDR 35(or thicker walled) PVC pipe.

5.4 CURVED SEWERS

A. Not allowed

5.5 INSTALLATION REQUIREMENTS

A. Standards
   1. The technical specifications shall require that installation be in accordance with the requirements based on the criteria, standards and procedures established by:
      a. Utah Administrative Code R317;
      b. Current American Public Works Association (APWA) Standards and Specs as amended by Nibley City;
      c. Recognized industry standards and practices;
      d. The product manufacturer's recommendations and guidance;
      e. The Following codes, as adopted by the State of Utah: International Building Code, International Plumbing Code, International Mechanical Code and National Electrical Code;
      f. American Society of Testing Materials (ASTM);
      g. American National Standards Institute (ANSI); and
      h. Occupational Safety and Health Administration (OSHA), US Department of Labor or its succeeding agencies;
      i. American Society of Civil Engineers (ASCE);
      j. American Water Works Association (AWWA);

5.6 MANHOLES

A. Location, manholes shall be installed at:
   1. The end of each line;
   2. All changes in grade, size, or alignment;
   3. All pipe intersections; and
   4. Distances not greater than 350 feet unless otherwise approved by City Engineer.

B. Drop Type Manholes
   1. A drop pipe should be provided for a sewer entering a manhole at an elevation of 24 inches (61 centimeters) or more above the manhole invert. Where the difference in

elevation between the incoming sewer and manhole invert is less than 24 inches (61 centimeters), the invert should be filleted to prevent solids deposition.

C. Diameter
   1. The minimum diameter of manholes shall be 48 inches;
   2. All manholes with three or more pipes entering the base or with pipes 18 inches or larger in diameter shall be 60 inches inside diameter.
   3. All manholes shall be analyzed by a Professional Engineer to ensure structural integrity of walls is sufficient for pipe penetrations.

D. Access
   1. Concentric cones required
   2. A minimum diameter of 25 inches shall be provided for safe access.
   3. Corrosive resistant steps beginning no more than 24 inches from the bottom surface of the manhole, up to and within 24 inches of cover of manhole shall be installed. Shall be installed vertically, over the apron.

E. Flow Channel
   1. The flow channel through manholes should be made to conform in shape and slope to that of the sewers. The depth of flow channels should be between one-half and three-quarters of the diameter of the sewer. Adjacent floor area should drain to the channel with the minimum slope of 1 inch per foot.

F. Water tightness
   1. Manholes shall be of pre-cast concrete.
   2. Manholes shall be water tight.
   3. Sanitary sewer manholes shall not be installed where ponded water is expected for any duration.
   4. Manholes shall be located to avoid street runoff and high water.
   5. Locked manhole covers may be desirable in isolated easement locations or where vandalism may be a problem as directed by the City Engineer.
   6. Two layers of mastic seal per joint
      Pre heat mastic before setting next section
   7. Wrap exterior joint with
   8. Grout left?

G. Electrical
   1. Electrical equipment installed or used in manholes shall conform to appropriate National Electrical Code, as adopted by the State of Utah, requirements.

5.7 INVERTED SIPHONS

A. Not allowed unless approved by City Engineer.

5.8 SEWERS IN RELATION TO STREAMS

A. Location of Sewers on Streams

1. The top of all sewers entering or crossing streams shall be at a sufficient depth below the natural bottom of the stream bed to protect the sewer line from damage and freezing. In general, the following cover requirements must be met:
    a. one foot (30 centimeters) of cover is required where the sewer is located in bedrock;
    b. three feet (90 centimeters) of cover is required in other material;
    c. cover in excess of 5 feet may be required in streams having a high erosion potential; and
    d. in paved stream channels, the top of the sewer must be placed 5 feet below the bottom of the channel pavement.

B. Horizontal Location
1. Sewers located along streams shall be outside of the stream bed and banks.

C. Structures
1. The sewer outfalls, headwalls, manholes, gate boxes, or other structures shall be located so they do not interfere with the free discharge of flood flows of the stream.

D. Alignment
1. Sewers crossing streams should be designed to cross the stream as nearly at right angles to the stream flow as possible, and shall be free from change in grade.
2 Sewer systems shall be designed to minimize the number of stream crossings.

E. Construction
1. Materials.
    a. Sewer main shall be encased in a joint less casing.
    b. Material used to backfill the trench shall be engineered to protect sewer line from scour or other damage as directed by the City Engineer

F. Aerial Crossings
1. Not Allowed.

5.9 PROTECTION OF WATER SUPPLIES

A. All sewer designs must comply with the requirements stated in Utah Administrative Code R309.

5.10 SEWER LATERALS

A. Sewer laterals shall be placed 10 feet from water service line
B. Shall run perpendicular to centerline of road
C. Shall have sewer cleanouts at 100’ intervals
D. Shall be connected with a saddle connection and not directly to a manhole

5.11 LIFT STATIONS AND FORCE MAINS

A. All Sewer Sewage Pumping Stations and Force Main Designs shall comply with Utah State Administrative Code R317-3-3.
B. A 12 gauge copper wire, PVC jacketed for underground service, shall be placed along the crown of force mains along its entire length.

1. All splices shall be with gel filled wire connectors.
2. At vault locations, coil wire inside of vault, and secure in a location that is readily accessible near the entrance of the vault, to allow access to the wires without completely entering the vault.
3. Provide a termination point for locate wire every 500 linear feet. Termination points not in a vault should be protected in valve box type structures.

C. See Nibley City Standard Lift Station drawings and specifications.

5.12 Private Sewer Mains

A. Private Sewer Mains are allowed, but not have more than 3 connections to it.
B. Shall follow the same design guidelines as presented in section 5.3 above.
C. Manhole not required at connection point.
D. Two clean outs required at the property line, one in each direction.

Section 6. Storm Drain Design Standards

Cache Valley Storm Water Design Standards
As Amended by Nibley City April 2019

These design standards provide the required storm water design criteria and methodology to be utilized for all public and private development and redevelopment required by the Utah Pollutant Discharge Elimination System (UPDES) General Permit for Discharges from Small Municipal Separate Storm Sewer Systems (MS4 or MS4 Permit). Any deviations from these criteria shall be reviewed and approved, only if adequate, by the City Engineer in writing prior to initiating and again before finalizing the design or bidding the project. Where any deviations may also affect a canal company or irrigation ditch, a written approval of the canal company shall also be required before the designs will be approved and before bidding the project.

All designs must utilize and comply with the most current edition of the Nibley City Design and Construction Standards and Specifications.

A. DESIGN REQUIREMENTS

All projects, irrespective of the size or type, shall meet these requirements. Where projects are governed by a state or federal agency, their standards shall take precedence. All designs shall be in compliance with the PWD's constructions standards and specifications.

Subsequent sections identify the required methodology based upon the size and type of the project.

1. Storm Water Submittals

B. Submittals Required

Every submittal shall include the calculations in Table B-1 based on contributing storm water runoff source area.

Table B-1: Storm Water Submittals Required

Contributing Areas	Requirements

Less than 1.0 Acre disturbed and not part of a common plan of development	Pollution Control Plan (See B.2) Hydrologic checklists and summary calculations required on checklist. LID and BMP Selection Checklist
Greater than 1.0 acres disturbed or part of a common plan of development.	SWPPP Hydrologic report and copy of checklists, with associated calculations for each drainage basin Water Quality/Treatment Requirements Checklist LID and BMP Selection Documentation and Checklist

1. Storm Water Pollution Prevention Plan

Storm water pollution prevention plans (SWPPP) are required on all projects in PWD boundaries and every project must comply with PWD standards and specifications, whether approved by the PWD or not. Table B-2 summarizes the requirements of the SWPPP.

Table B-2, SWPPP Requirements

Contributing Area Size	Minimum Requirements
Less than 1.0 Acre and NOT part of a common plan of development	A pollution control plan that will address at a minimum the control and prevention of the following: erosion and sediment; dust; debris and garbage; concrete washout and excess material, wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds or other construction materials; soaps solvents or detergents used in vehicle or equipment washing; and toxic or hazardous substances from spills or other releases. Each pollution control plan shall also include an inspection and maintenance plan, record keeping and training, and final stabilization. These can be on a standard design sheet as detailed notes with supporting details or a standalone document.

1.0 Acre and larger OR Less than 1.0 Acre and part of a common plan of development	A full SWPPP using the UDEQ template downloadable from the DWQ at the following web site: http://www.deq.utah.gov/Permits/water/updes/stormwatercon.htm All elements in the SWPPP document must be included in the submittal.

2. Irrigation Canals and Systems

Every existing irrigation ditch or canal has played a part of the City storm water facilities from the settling of the community. When the canals were built, they delivered water from the river and intercepted storm water runoff from uphill naturally. However, when the canals flooded, there weren't houses at risk back then. Now, with ongoing development, these conditions have changed. Design of storm drainage systems using the canals have special requirements as a result and must be approved by not only the City, but also the canal company serving the area of question.

The PWD requires that irrigation ditches and canals that deliver irrigation water be preserved to deliver the water to the water users and to allow access to the ditch or canal for maintenance.

All irrigation canals, pipes, ditches, channels, structures, diversions, and other portions of the system shall be designed for the full range of base flows including historical maximum flows, historical minimum flows, and the full water right flow. Then the channel shall have the upstream storm drain inflows and irrigation return flows added to the model to ensure that all future systems have sufficient capacity. These design flows must to be approved by the associated canal company or irrigation ditch owners in writing and the City Engineer.

C. Water Right Flows

The design flow will be the maximum flow allowed by the canal water rights. Flows down laterals and distribution ditches shall be obtained in accordance with the agreements between the Cities and the canal companies Obtain the water righted flows and the lateral flows directly from the canal companies. These must be documented in a letter signed by an authorized canal company representative to be accepted by the City. Primary canal company contacts are available from the City.

a) Return Flows

Many of the canals receive return flows from the upstream canals. This can seriously complicate the storm water design since many people turn off their

irrigation water and simply pass it down the ditch during storms. This can result in major flooding issues on some canals, even without any storm water entering the canals. When designing a section of the canal, it shall be necessary to take the return flows into consideration and to discuss them with the canal companies. Again, the agreed upon flows must be obtained in accordance with the canal agreements with the Cities.

2. Storm Event (Frequency and Duration Requirements)

Design all storm water facilities associated with projects shall be designed in accordance with Table B-3.

Table B-3: Storm Event Frequency and Duration Design Requirements

Contributing Area Size	Temporary Construction BMPs Design Frequency	Permanent Construction BMPs Design Frequency	Design Storm Duration	Rainfall Depths at KVNU Radio Station
Less than 1.0 acres	2-Year	100-year	Retention/Infiltration: 48 hours All Other BMPS: 24 Hours	24 Hour, 2-year: 1.46 inches 10-year: 2.04 inches 25-year: 2.41 inches 50-year: 2.71 inches 100-year: 3.02 inches 48-hour, 2-year: 1.68 inches 10-year: 2.33 inches 25-year: 2.75 inches 50-year: 3.08 inches 100 Year: 3.42 inches
1.0 acres and less than 640 acres	2-Year	100-year	Retention/Infiltration: 48 hours All Other BMPS: 24 Hours	
640 Acres and larger	2-year	10-year, 25-year, 50-year, and 100-year	Retention/Infiltration: 48 hours All Other BMPS: 24 Hours	

Existing development shall be required to construct storm water facilities to meet the new storm water design criteria at the time of redevelopment or reconstruction of any facilities. However, the return frequency and design duration may be modified under extreme conditions at the direction of the City Engineer with approval of the agency managing the receiving waters in writing.

3. Allowable Storm Water Discharge

There are two criteria related to the allowable discharge that shall be met by all projects. Any exceptions to this requirement shall be evaluated and approved on a case by case basis using the methodology provided in this document and other equivalent water quality treatments shall be utilized. Approval by the PWD is required before any deviations are allowed.

a) Mandatory Onsite Management

Under the MS4 Permit, all new development and re-development, including roads, shall be designed to manage the 90th percentile rainfall event as defined Table B-4 and Table

B-5 of these design standards. The MS4 permit requires that the entire volume of the 90th percentile storm that falls on the site shall be infiltrated, evaporated, and/or harvested (not exceeding amounts allowed by Utah Division of Water Rights).

Table B-4: 90th Percentile Storm Definitions in Cache County

Gauging Station	LOGAN RADIO KVNU UT US	LOGAN UT STATE UNIVERSITY UT US	LOGAN 5 SW EXPERIMENTAL FARM UT US
Depth (Inches)	.60	.66	.63
Elevation (ft)	4,505	4,778	4,491

Table B-5: 90th Percentile Design Criteria by PWD.

PWD	90th Pecentile Criteria
Logan City	Elevation < 4,642: Use 0.60 inches (KVNU) Elevation > 4,642: Use 0.66 inches (UT State University)

Under conditions where the 90th percentile storm cannot be managed on site, the designer shall provide a storm water design report that shall document the following:

1. Why the 90th percent storm cannot be managed on site.
2. Provide an alternative design rational that maximizes all of the following:
    a. Infiltration,
    b. Rain harvesting as allowed by the Utah Division of Water Rights,
    c. Evapotranspiration.

b) Maximum Allowable Discharge

Most of the storm water in Cache Valley discharges to irrigation ditches and canals before reaching the rivers and streams. However, the ditches and canals are not designed to carry the increase in flows and are at risk of flooding both private and public property. Through negotiations with the canal companies, the following flow rate restrictions have been agreed upon:

1) The storm water runoff leaving the site during the 1 percent (100-year) event shall not exceed the lesser of:
   a) Discharge prior to development (Historical Runoff Flow), or
   b) 0.2 cfs per acre.
2) All storm water calculations shall include the following:
   a) A calculation of Historical/Predevelopment flow rate. This is defined as the flow rate off of an irrigated pasture in good condition using the NRCS Curve Number Methodology defined in Section 3 of this standard.
      i) If the Historical /Predevelopment flow rate is greater than 0.2 cfs/acre, then the maximum allowable discharge is 0.2 cfs/acre.
      ii) If the Historical/Predevelopment flow rate is less than 0.2 cfs/acre, then the Historical/Predevelopment flow rate is the maximum allowable discharge.
   b) A calculation of the Post-Construction flow rate and volume. If the Post- Construction flow rate, after the removal of the 90th percentile storm in B.4.a above, exceeds the maximum allowable discharge, additional detention or retention of flows shall be included in the design until the discharge is reduced to not more than the maximum allowable discharge.
3) The locations of the storm water discharge shall not be altered without permission. This is interpreted to mean that the ditches or canals receiving the discharge cannot be changed without express approval of the managers of the receiving ditches or canals.

6. Water Quality/Treatment Requirements and Possible BMPs

Under the MS4s Permit, Nibley City is required to "ensure that any storm water controls or management practices for new development and redevelopment will prevent or minimize impacts to water quality. BMPs must be selected that address pollutants known to be discharged or anticipated to be discharged from site." The BMPs and Procedures included in this section summarize the design requirements for the most common BMPs to meet the MS4 permit requirements. Table B-6 summarizes many of the pollutants of concern based on expected land use.

Retail Gasoline Outlets	Oils, Fuel, Fuel Combustion byproducts, salt, sediment, garbage and trash.	Petroleum Products, Trash, BOD, E.coli, pesticides, herbicides, and other chemicals.	Limit: • total phosphorus < 0.07 mg/L. • total nitrogen < 6 mg/L • BOD5 < 5 mg/L. • E.Coli < 126 • TDS < 1200 mg/L • TSS cause <10 NTU increase in receiving water • TSS < 70 mg/L • Petroleum cause no sheen Trash cleaned up
Large Grassed Areas (parks, churches, etc.) and Golf Courses	Organic trash such as leaves, grass trimmings, decomposing vegetation, and animal waste. Application of fertilizers, pesticides, and herbicides	Phosphoru s, Nitrogen, BOD, E.coli, pesticides, herbicides, and other chemicals.	Limit: • total phosphorus < 0.07 mg/L. • total nitrogen < 6 mg/L • BOD5 < 5 mg/L. • E.Coli < 126
Animal Operations (Feed Lots, Veterinary Clinics, Research Facilities)	Animal wastes	Phosphoru s, Nitrogen, BOD, E.coli, pesticides, herbicides, and other chemicals.	Limit: • total phosphorus < 0.07 mg/L. • total nitrogen < 6 mg/L • BOD5 < 5 mg/L. • E.Coli < 126 • TSS cause <10 NTU increase in receiving water • TSS < 70 mg/L

Table B6- Pollutants of primary concern

7. Required LID and BMP Selection

Under the MS4s Permit, Nibley City is required to "ensure that all storm water controls or management practices for new development and redevelopment will prevent or minimize impacts to water quality. BMPs must be selected that address pollutants known to be discharged or anticipated to be discharged from site." As part of the selection of BMPs, the designer is required by the MS4 Permit to

evaluate and utilize LID methods that infiltrate, evapotranspire, or harvest and use storm water on site to protect water quality.

The BMPs and Procedures included in this section summarize the design requirements for the most common BMPs. However, the State of Utah DEQ has published a *Guide To Low Impact Development in Utah*, that may also be used and will be referred to by Nibley City staff while evaluating proposed LID practices and proje.

a) Mandatory LID Evaluation

Each project shall be evaluated for the use of LID approach with encourages the implementation of BMPs that infiltrate, evapotranspire or harvest and use storm water on site to protect water quality. The evaluation shall use shall include both structural and non-structural BMPs. If the designer determines that an LID approach cannot be utilized, the designer shall document and explain the reasons that LID will not work on the specific site and provide the rationale for the chosen alterative controls that will be used to obtain the same water quality objectives. This evaluation shall be completed on a case by case basis. As a minimum, the evaluation shall document:

1. Why LID won't work.
2. Rational for the chosen alternative controls on a case by case basis for each project.

LID to be considered on all Projects

(i) Development in riparian areas

1. Riparian areas are defined as being within 75 feet of centerline of stream drainage a basin larger than 1 square mile, and land within 25 feet of stream centerline for streams that drain areas of one square mile or less.
2. All structures shall maintain a setback of 25 feet from the top of the stream bank within a riparian area.
3. No more than 50% of the land area within the riparian area may be disturbed, including grading, clearing, grubbing, tree removal etc. All disturbed areas shall be revegetated within 60 days of initial disturbance.
4. Trees larger than 12" dbh shall not be removed from the riparian area unless they are considered a hazard tree, diseased or dead.

(ii) Open Space Preservation

1. Open space is an area of land or water that may be used for passive

or active recreation, agriculture, conservation, landscaped areas, preservation of the natural environment, scenic land, and/or other similar uses.

2. Minimum open space by development type shall include:
    a. Residential: 20%
    b. Commercial: 10%
    c. Industrial: 10%
3. A permanent restrictive covenant in the form of a perpetual conservation easement shall be placed upon open space land requiring its maintenance as open space.

(iii) Land Designation as a Resource Conservation Zone

1. The Resource Conservation Zone includes lands protected from development such as highly productive agricultural lands, areas of high visual value, and critical environmental resources especially including lands critical to protecting the water quality of our rivers and streams. Much of this land would be wetlands.
2. This zone is intended to maintain the vegetation in this area.

(iv) Landscaping

1. Landscape buffers shall be provided between parking areas and adjacent residential, commercial, or industrial properties.
2. Landscaping shall be installed in all yard areas, along the perimeter of the lot, around buildings and all other portions of the property no specifically utilized otherwise.
3. Minimum Landscaping requirements:
    a. Commercial, industrial, mixed-use, and multi-family projects shall comply with the following:
        i. 50% of the required useable open space of the project shall be planted landscape area.
        ii. Twenty trees shall be required per one (1) acre of gross land
        iii. Fifty (50) shrubs shall be required per one (1) acre of gross land.
        iv. Plant material shall be placed around the perimeter of the building foot print in a three (3) foot minimum planting strip with the exception of entrances, utilities and where setbacks are less than three feet.
        v. Mulch or clean gravel is recommended in non-turf areas to retain water and encourage infiltration. Weed barrier fabrics or drainage fabrics placed under the mulch or gravel shall be porous material to allow water and air to infiltrate into the soils

below.

b. Landscaping of Rights-of-way
    i. All public or private streets shall provide a planted landscaped strip (park strip) and be perpetually maintained by the adjacent property owner.
    ii. Street trees shall be planted within the parkstrip along both sides of all streets every thirty (30) feet on center.
    iii. Residential park strips shall be planted with live plant material to a minimum of fifty percent (50%). When calculating the park strip coverage percentage areas, plants may be measured at mature spread excluding street trees.
    iv. Impermeable surfaces such as asphalt or concrete are prohibited within the park strip.
c. Parking Lot Landscaping
    i. The parking lot perimeter landscaping requirements apply to all off-street parking lots that are not otherwise fully screened from view of the adjacent public rights-of-way. Parking Lot perimeter landscaping is governed by the City Land Development Code.
    ii. The parking lot interior landscaping shall provide the following:
        1. At least 18 square feet of interior landscape planting area for each off-street parking stall.
        2. Landscaping located within the interior shall be eventy dispersed throughout the area.
        3. All aisles shall have landscaped areas at each end of the aisle.
        4. One landscaped planter area containing at least one (1) tree shall be installed within the interior of the parking area for every fifteen (15) stalls.

b) Infiltration BMPS

(i) At Grade Retention/Infiltration Basins

1. All retention basins shall be sized to meet the requirements of Section B of this chapter and to contain 100 percent of project site runoff from the design storm. Infiltration during the storm shall not be included in the calculation.
2. Side slopes shall not be steeper than 3:1 (H:V).
3. The maximum depth of the pond shall be three feet plus one (1) foot of

freeboard above the emergency overflow and a maximum water depth of three (feet) below the emergency overflow. All other ponds require special design, approval, and permitting including safety precautions on a case by case situation.

4. All ponds shall be stabilized with rocks or planted vegetation to prevent internal erosion. Vegetation or other stabilization shall be maintained.
5. All ponds shall drain within 3 days (72 hours) from the end of the storm event. This is to be documented with a certified percolation test of the native sub-grade material and the material placed during construction, and documented in the soils report.
6. Emergency overflows and the flow path of the overflows shall be mapped for purpose of flooding.
7. The emergency overflow shall be designed to pass the full 100 year event.
8. Other utilities (for example water lines, sewer lines, gas lines, power lines, phone lines, etc.) shall not be allowed through the retention pond or within 5 feet of the pond berms.
9. The invert or lowest point in the pond shall be not less than 24-inches above the historically highest groundwater levels.
10. The bottom of the pond shall be finished to maintain historical infiltration.

(ii) Underground Retention/Infiltration Systems

1. All retention basins shall be sized to meet the requirements of Section B of this chapter and to contain 100 percent of project site runoff from the design storm. Infiltration during the storm shall not be included in the calculation.
2. Underground buried retention and injections systems, are not allowed in drinking water source protection zones 1 and 2.
3. Underground systems shall provide adequate access points for cleaning and maintenance of the underground chambers.
4. All systems shall drain by infiltration within 3 days (72 hours) from the end of the storm event. This is to be documented with a certified percolation test and documented in the soils report.
5. Sumps shall provide adequate water quality treatment to prevent contamination of the ground water aquifer.
6. Emergency overflows and the flow path of the overflows shall be mapped for purpose of flooding and flood insurance requirements.
7. The emergency overflow shall be designed to pass the full 100 year event.
8. Other utilities (for example water lines, sewer lines, gas lines, power lines, phone lines, etc.) shall not be allowed through or under the underground retention system.

9. Registration with the DWQ and a Class 5 Injection Well Permit are required for all underground retention/infiltration systems.

(iii) Infiltration Trenches

1. Infiltration trenches are not allowed in drinking water source protection zones 1 and 2.
2. Infiltration trenches shall provide adequate access points for cleaning and maintenance underground piping.
3. Infiltration trenches shall drain by infiltration within 3 days (72 hours) from the end of the storm event to provide adequate storage for a subsequent event. This is to be documented with a certified percolation test and documented in the soils report.
4. Infiltration trenches shall have adequate water quality treatment to prevent contamination of the ground water aquifer.
5. Emergency overflows and the flow path of the overflows shall be mapped for purpose of flooding and flood insurance requirements.
6. The emergency overflow shall be designed to pass the full 100 year event.
7. Other utilities (for example water lines, sewer lines, gas lines, power lines, phone lines, etc.) shall not be allowed through or under the infiltration trenches.
8. Registration with the DWQ and a Class 5 Injection Well Permit are required for all infiltration trenches.

(iv) Infiltration Swales

1. Side slopes shall not be steeper than 4:1 (H:V).
2. The maximum depth of the pond shall be one (1) foot.
3. All ponds shall be landscaped per landscaping requirements. Vegetation or other stabilization shall be maintained.
4. All swales shall drain within 3 days (72 hours) from the end of the storm event. This is to be documented with a certified percolation test of the native sub-grade material and the material placed during construction, and documented in the soils report.
5. Emergency overflows and the flow path of the overflows shall be mapped for purpose of flooding to ensure all emergency overflows are to the PWD drainage system
6. The invert or lowest point in the pond shall be not less than 24-inches above the historically highest groundwater levels.
7. The bottom of the pond shall be finished to maintain historical infiltration.

8. Temporary check dams shall be constructed at 150' intervals during construction of a subdivision. May be removed when permanent driveway is installed within the lot the temp dam is constructed on.
9. Swales must be completed to final grade and top soil prior to final acceptance of a subdivision.

(v) Permeable Pavements

Permeable (or pervious) pavements contain small voids that allow water to pass through to a stone base. They come in a variety of forms; they may be modular paving system (concrete pavers, modular grass or gravel grids) or poured0in0place pavement (porous concrete, permeable asphalt). All permeable pavements with a stone reservoir base treat storm water to remove sediments and metals to some degree by allowing storm water to percolate through the pavement and enter the soil below. All permeable pavement systems shall be designed to ensure that water in the pavement and the rocks below completely infiltrate into the soil within 72 hours.

(vi) Injection Wells (Sumps)

1. Injection wells also known as sumps are not allowed in drinking water source protection zones 1 and 2.
2. Injection wells shall provide adequate access points for cleaning and maintenance underground piping.
3. Injection wells shall drain by infiltration within 3 days (72 hours) from the end of the storm event to provide adequate storage for a subsequent event. This is to be documented with a certified percolation test and documented in the soils report.
4. Injection wells shall have adequate water quality treatment to prevent contamination of the ground water aquifer.
5. Emergency overflows and the flow path of the overflows shall be mapped for purpose of flooding and flood insurance requirements.
6. The emergency overflow shall be designed to pass the full 100 year event.
7. Registration with the DWQ and a Class 5 Injection Well Permit are required for all injection wells.

c) Storm Water Harvesting

Storm water harvesting will not be considered a means of an acceptable permanent stormwater BMP.

d) Natural Filters

Natural Filter facilities are landscaped shallow depressions that capture and filter stormwater runoff. As stormwater passes down through the planting soil, pollutants are filtered, adsorbed, and biodegraded by the soil and plants. Because they are not contained within an impermeable structure, they may allow for infiltration.

Projects that have demonstrated they cannot manage 100% of the water quality design volume onsite through infiltration and/or stormwater harvesting BMPs may manage the remaining volume through the use of a high removal efficiency natural filter BMP. A high removal efficiency natural filter BMP shall be sized to adequately capture 1.5 times the volume not managed through infiltration and/or capture and use.

(i) Bio-Filters

Most natural filter systems can be classified as biofilters. They normally consist of a ponding area, mulch layer, planting soils, plants, and in some cases an underdrain. Runoff that passes through a biofiltration system is treated by the natural absorption and filtration characteristics of the plants, soils, and microbes with which the water contacts.

(ii) Rain Gardens

Rain gardens are simply gardens designed to capture and treat runoff. They are generally small in size and should not be used to treat impervious areas exceeding 4,000 square feet. Rain gardens most often utilize native plant species and soil amendments to encourage absorption of stormwater. For projects with impervious areas exceeding 4,000 square feet biofilters, planter boxes with infiltration, vegetated swales or natural buffer strips should be considered.

(iii) Planter Boxes with infiltration

Planter boxes with infiltration are natural filtration treatment control measures located in and around structures and facilities to handle larger volumes of water than a typical rain garden. They typically are constructed with vertical or near vertical sides and above

ground. They can be equipped with underdrains if necessary. Planter boxes with infiltration should maintain setbacks from adjacent buildings, other structures, sidewalks or roadways.

(iv) Vegetated Swales

Vegetated swales are open, shallow channels with dense, low-lying vegetation covering the side slopes and bottom that collect and slowly convey runoff to downstream discharge points. An effective vegetated swale achieves uniform sheet flow through the densely vegetated area for a period of several minutes. The vegetation in the swale can vary depending on its location and is the choice of the designer. Most swales are grass-lined.

(v) Filter or Buffer Strips

Filter strips are vegetated areas designed to treat sheet flow runoff from adjacent impervious surfaces such as parking lots and roadways, or intensive landscaped areas such as golf courses. While some assimilation of dissolved constituents may occur, filter strips are generally more effective in trapping sediment and particulate-bound metals, nutrients, and pesticides. Filter strips are more effective when the runoff passes through the vegetation and thatch layer in the form of shallow, uniform flow. Filter strips are primarily used to pretreat runoff before it flows to an infiltration BMP or another natural filtration BMP.

e) Man-Made Treatment

(i) Planter Boxes

Planter boxes are bioretention treatment control measures that are completely contained within an impermeable structure with an underdrain (they do not infiltrate). They are similar to bioretention facilities with underdrains except they are situated at or above ground and are bound by impermeable walls. Planter boxes may be placed adjacent to or near buildings, other structures, or sidewalks.

(ii) Hydrodynamic Separators

Hydrodynamic separators are stormwater management devices that work primarily based on vortex and gravity principles to separate stormwater from the pollutants. They are generally designed as flow-through systems with either on-line or off-line storage of pollutants. They include chambers for settling and storage of pollutants and are often used in conjunction with other BMPs as pretreatment. They are not especially effective for the removal of fine materials or dissolved pollutants. On-line separators are more susceptible to scour or re-suspension of pollutants than systems that incorporate off-line storage.

f) Settlement systems

Settlement systems are used to store and settle out sediment using Stokes Law. This approach does not infiltrate, harvest, or evaporate sufficient water. However, it can be used in combination with other BMPs to ensure treatment of water above

the 90th percentile storm to ensure water quality requirements and the flow requirements of the canal companies are met.

(i) At Grade Detention Basins

1. Side slopes shall not be steeper than 3:1 (H:V).
2. The maximum depth at the emergency overflow location of the pond shall be three feet plus one (1) foot of freeboard above the emergency overflow and a maximum water depth of three (feet) below the emergency overflow. All other ponds require special design, approval, and permitting including safety precautions on a case by case situation.
3. All ponds shall be stabilized with rocks or planted vegetation to prevent internal erosion. Vegetation or other stabilization must be maintained.
4. Where orifice and snouts are used, the orifice size is limited to not less than three (3) inches in diameter to prevent clogging.
5. Emergency overflows and the flow path of the overflows shall be mapped to natural streams, canals, or city approved drainage system for purpose of flood mapping using existing topographic mapping.
6. The emergency overflow shall be designed to pass the full 100 year event.
7. Other utilities (for example water lines, sewer lines, gas lines, power lines, phone lines, etc.) shall not be allowed through the detention pond or within 5 feet of the pond berms.
8. The invert or lowest point in the pond shall be not less than 12-inches above the historically highest groundwater levels (whichever is higher).
9. The bottom of the pond shall be finished to maintain historical infiltration.

(ii) Underground Detention Systems

1. Underground systems shall provide adequate access points for cleaning and maintenance.
2. All Detention systems shall drain by discharge (detention basins) within 3 days (72 hours) from the end of the storm event. This is to be documented.
3. Emergency overflows and the flow path of the overflows shall be mapped for purpose of flooding and flood insurance requirements.

4. The emergency overflow shall be designed to pass the full 100 year event.
5. Other utilities (for example water lines, sewer lines, gas lines, power lines, phone lines, etc.) shall not be allowed through or under the underground retention system.

8. Curb and Gutter Flow Design

1. The flow depth in the gutter shall not be allowed to exceed the lesser of the top back of curb elevation (TBC) or the peak drive way approach elevation during the required storm event. This includes a combination of piping, curb and gutter, and ditches.
2. Where the flow depth is exceeded, storm drain inlets and a piped system shall be required and appropriate actions taken to eliminate overtopping of the curbs and flooding private property.

9. Channel Design

1. Channel side slopes shall not be steeper than 3:1 (H:V) unless they are concrete. Where they are incorporated into landscaping, flatter slopes shall be required. This will be evaluated on a case by case basis.
2. Channel velocities shall be slow enough to prevent scour, and where possible, facilitate further settlement of sediments unless the channel is used to deliver irrigation water as well. If the channel will also carry irrigation water, maintain velocities above 2 ft/sec if possible, but at no time exceed 4 ft/sec.
3. Where rip-rap is used, design shall be in accordance with EM-1110 from the US Army Corp of Engineers or HEC-11 from the Federal Highway Administration.
4. Free board on the channels shall be in compliance with the Bureau of Reclamation, Design of Small Canal Structures.
5. Channel maintenance easements shall be maintained as required in the City and Canal Company agreements.

10. Pipe Design

1. For storm water pipes, roughness coefficients listed in the table included in Section D of these standards that coincide with the accepted pipe materials in the City's Standard Specifications, most current edition shall be used.

2. Maintain velocities in the pipes at design flows sufficient to prevent sediment deposition and low enough to prevent scour damage to the pipe.
3. Pipe outlets shall have a flared end discharge unless more stringent methods of energy dissipation are required.
4. Minimum diameter of storm drains shall be:
5. 12 inches for laterals
6. 15 inches for trunk lines
7. 18 inches under the UDOT right of way.
8. Pipe sizes shall not decrease in the downstream direction.
9. Maximum flow depth in the pipe during the design storm shall not exceed 0.85 times the diameter of the pipe.

D. REQUIRED HYDROLOGIC METHODOLOGY

1. Design Methodology

Table C-1 summarizes the required methods based on the area contributing flows to the system, including offsite flows. THE RATIONAL EQUATION IS NOT ALLOWED FOR DESIGN OF BEST MANAGEMENT PRACTICES.

Table C-1, Hydrologic Methods Required

Contributing Area (Acres)	Methodology Required
Less than 10.0 Acre	SCS Method with calculated time of concentration. Time of Concentration shall not be less than 5 minutes.
Greater than 10.0 Acres	SCS Method. The time of concentration can be calculated or hydrodynamic solutions may be used. If hydrodynamic solutions are used, the model must be provided to the PWD for detailed review of all assumptions and data used.

2. Design Hyetographs

Table C-2 summarizes the hyetograph which shall be used during the design.

Table C-2, Required Design Hyetograph

Contributing Area (Acres)	Methodology Required
Less than 10.0 Acres	SCS Type II Storm
10.0 Acres or Larger	SCS Type II Storm or other acceptable Hyetograph with special approval.

3. Hydrologic Procedures

The SCS method, as developed in TR-55 by the Soil Conservation Service in the 1950s, requires the designer to address the soil conditions, vegetative cover, and the antecedent soil condition (AMC) being evaluated.

a) SCS Soil Conditions

Soil maps and references available from the Natural Resource Conservation Service will identify the group associated with each soil class. HOWEVER, the designer needs to consider the effects of the final landscaping, such as the use of top soil, as part of his design.

There are four primary soil conditions available in the SCS method, grouped as A, B, C, and D.

Group A soils typically are gravels and sands with fast infiltration rates and low runoff potential. While there are Group A soils on some of the benches and along the Logan river in some places, as soon as any landscaping with topsoil occurs, the storm water benefit is lost. Unless specific LID design is incorporated to maintain the infiltration potential of these soils, final landscaping will require a different soil group.

Group B soils have moderate infiltration rates when wetted and consist of moderately well drained soils with moderately fine to course textures, typically without clay.

Group C soils have slow infiltration rates if thoroughly wetted and consist of soils that have a layer that impedes vertical infiltration.

Group D soils have a slow infiltration rate if thoroughly wetted and consist of clays, usually with high swelling potential, soils with a permanent high water table, soils with a clay pan or hard pan later near the surface, and shallow soils over an impervious material.

b) Antecedent Soil Conditions

In addition to the soil group, the antecedent moisture condition (AMC) must also be considered. For the average case, the SCS has defined AMC II to apply as the definition of the conditions preceding most annual floods. For this purpose, AMC II will be used for all PWD approved projects.

Upon selecting the soil group, the appropriate curve number can be selected from various standard references and text books. A common free reference is the HEC-HMS technical reference manual which can be downloaded from the Army Corp of Engineers HEC website. Runoff coefficients are subject to approval by the City Engineer.

c) Runoff Coefficients

PWD has established standard runoff coefficients that shall be used to ensure compatibility of results from the base model and each individual project. Calculations differing from these values shall be returned to the design professional for corrections.

Table C-3, Required Runoff Coefficient (CN)

Condition	Soil Group A	Soil Group B	Soil Group C	Soil Group D
Asphalt	98	98	98	98
Concrete Pavement	98	98	98	98
Grassed Open Space (Grass Cover > 75%)	39	61	74	80
Grassed Open Space (Grass Cover 50-75%)	49	69	79	84
Graveled Areas	76	85	89	91
Woods and Forested Areas (Good Condition)	25	55	70	77
[1)]Residential Lots, less than ¼ acre	77	85	91	94
[1)]Residential Lots, ¼ acre to ½ acre	61	75	83	87
[1)]Commercial Business Areas	89	92	94	95
[1)]Industrial Areas	81	88	91	93

[1)] Where the weighted values are too cumbersome to calculate, or insufficient data is available outside of the project area, use these values.

d) Time of Concentrations Calculations

There are numerous equations for calculating the time of concentrations. While many may be applicable to various locations, Table C-4 identifies the methods that shall be used in determining the time of concentrations within the PWD areas.

Table C-4, Time of Concentration Calculations

Larger of Contributing Area or Project Area (Acres	Sheet Flow	Open Channel Flow	Piped Flow
Less than 10.0 Acres	Calculated per HEC-22	Calculated per HEC-22	Calculated per HEC-22
10.0 Acres or Larger	Coordinate with City Engineer	Coordinate with City Engineer	Coordinate with City Engineer

E. HYDRAULIC CALCULATIONS

Hydraulic calculations shall be used for sizing pipes and open channels associated with the total design flows.

1. Channel Design

Channels shall be designed with a trapezoidal cross section using roughness coefficients associated with the final restored condition. The Manning's equation methodology shall be used for sizing and considering the associated backwater impacts from downstream conditions. Computer software can be used to calculate the channel size, but sufficient data and results shall be provided to validate the procedure, assumptions, and conclusions.

2. Pipe Design

For design of pipes and culverts, the designer shall demonstrate that the pipes meet the standard design requirements using Manning's equation for open channel flow and standard culvert calculation procedures to determine inlet and outlet control conditions. Full pipe flow designs are not allowed for gravity systems. For storm water pressure mains from pump stations, either the Hazen-Williams or Darcy-Weisbach equations will be allowed. Roughness coefficients and assumptions shall be in accordance with Table D-1 selected from various references.

Pipe material: shall be Reinforced Concrete Pipe (APWA 33 05 02) or Polyethylene Pipe (APWA 33 05 06) or Polypropylene (APWA 33 05 11).

Required cover shall follow manufacturers recommendations, but in no case shall be less than 12" without prior approval from City Engineer.

Due to many places in the City having high ground water, flotation and buoyancy calculations are required on all Poly pipe installations, and counter measures designed if calculations show a risk of the pipe floating.

Table D-1, Manning's Coefficients for Pipe

Material	Roughness "n"
Smooth Interior HDPE or PE Pipe	.010
Reinforced Concrete	.013

The design and sizing may be done manually or with the use of computer software. However the results must be provided as part of the submittal review process.

3. Spread Width Calculations

Spread width calculations and depth of flow in the gutters shall be completed in accordance with HEC-22 methodology developed by the Federal Highway Administration (FHWA). These calculations can be completed using numerous available software or manually. However, the calculations must be documented and provided to the City for review for the design storms.

Section 7. Other Utility Design Standards

7.1 Monuments. Permanent monuments shall be accurately set and established within the subdivision at such points and to the specifications determined by the City Engineer as necessary to definitely establish all the lines of the plat and individual lots.

A. All subdivision plats shall be tied to two corner or monuments of record or established land office survey corners, as well as the Nibley City Monument System.
B. Curb pins shall be placed in the center of the top of curb at locations where the property lines would intersect the curb if they were to extend to the centerline of the road.

7.2 Natural Gas Service. Natural gas mains and laterals shall be installed to each lot, to the lot line.

7.3 Electric Power Service. Underground electrical conduits shall be installed to each lot, to the lot line.

7.4 Street Lighting. Street lights shall be shown on construction plans, and required every:
A. Five hundred feet (500') throughout the subdivision;
B. At all intersections;
C. At the back of each cul-de-sac.

7.5 Street Signs. Street signs shall be paid for by the developer as part of the Development Agreement. City staff shall order the signs and install the street signs.

Section 8. Street Standards

8.1 Additional Referenced Standards. Design of street and related improvements in Nibley City shall conform to these Design Standards, Nibley City Standard Construction Specifications, and certain sections (as required by the City Engineer) of the current edition of the following referenced standards or documents:

A. "A Policy on the Geometric Design of Highways and Streets" American Association of State Transportation and Highway Officials (AASHTO)
B. "Manual on Uniform Traffic Control Devices (MUTCD) for streets and highways" US Department of Transportation Federal Highway Administration
C. "Guide for the Design of Pavement Structures" American Association of State Transportation and Highway Officials (AASHTO)
D. "Roadside Design Guide" American Association of State Transportation and Highway Officials (AASHTO)
E. "Standard Specifications for Highway Construction" Utah Department of Transportation (UDOT)
F. Uniform Fire Code
G. American Public Works Association Manual of Specification and Plans

8.2 Street Classification and Rights of Way Width. The Nibley City Transportation Master Plan shall establish street classifications. In the event that the Transportation Master Plan does not provide sufficient information in determining a classification, the City Engineer shall make a final determination.

A. Local Streets

1. Serve up to 75 residences
2. Serve an ADT of 750 or less
3. Shall have a minimum of a 60-foot right of way, unless listed on the Master Street Plan Map, then must comply with 8.3 (C).

B. Collector Streets

1. Serve over 75 residences
2. Serve an ADT between 750 and 4000
3. Designated in the Transportation Master Plan or General Plan
4. Shall have a minimum of 66-foot right of way

C. Arterial Streets

1. Designated in the Transportation Master Plan or General Plan
2. Shall have a minimum of 80-foot right of way

8.3 Standard Street Cross Sections.

A. Street Cross Sections shall conform to the following table and section with cross sections in the Transportation Master Plan Chapter 5.

Typical Section	Description	Street Classification	Right-of-way Width (feet)	Applicable Streets
TS-1	3-Lane Street with Buffered Bike Lane	Arterial	99	Heritage Drive, 4400 South, 3200 South
TS-2	3- Lane Street with Trail Facility			
TS-3	2- Lane Street with Buffered Bike Lane And Trail Facility	Arterial	80	2600 S (East of Railroad); 1200 W
TS-4	2-Lane Street with Buffered Bike Lane	Arterial	80	1900 W
TS-5	2-Lane Street with Trail Facility	Arterial	80	4000 South, 2600 South (West of 1200 W)
TS-6	2-Lane Street (No Bike Facility)	Arterial	80	2500 West
TS-7	2 Lane Street with on street parking	Collector	66	1000 W, Other collector within subdivision
TS-8	2 Lane Street with Bicycle Boulevard	Collector	66	250 W,
TS-9	2 Lane Street (No Bike Facility)	Collector	66	3650 S; Nibley Parkway; 2200 South; 1700 West; 1500 West; 900 West (South of 3200 South); 900 West (2600 South to 900 West); 700 West (South of 4000 South); 250 East
TS-10	2-Lane Street with Trail Facility	Collector	66	800 West (North of 2600 South); 640 West (4000 South to 3200 S)

:

B. All neighborhood and local streets within a subdivision shall comply with TS-13 in the Transportation Master Plan, or TS-14 if the developer or City wishes to incorporate swales. The City may allow the use of TS-11 when there is a proposed Trail use within the Trails Master Plan or proposed as part of a development. TS-12 may be approved in limited

circumstances to access a residential development, or an industrial or commercial facility. TS-12 may also be used in town-home, condominium or Residential-Planned Unit Developments as long as sufficient parking is provided in parking courts, dedicated sections of on street parking, driveways, and garages.

C. Local Collector roads are roads labeled within the Master Street Plan Map as local roads. These roads shall be built to 66 right-of-way width. TS-7 shall be the default cross-section. The Public Works director may allow other cross-section for local collectors based on 8.3 (D)

D. The City Public Works Director may adjust the layout of the above listed cross sections for Low Impact Development, increase safety, or to achieve other goals that are contained in the General Plan, Transportation Master Plan, Trails Master Plan, or the master/development plan of a subdivision.

1. Examples of reason why a cross-section would be altered include some of the following: increase width of sidewalks or bike lanes, increase width of proposed swales, eliminating street parking where sufficient parking will be located in parking court or lot or to allow for bicycle or pedestrian facilities, etc.

E. Right-of-way widths must comply with right-of-way widths listed in the Transportation Master Plan. The Public Works director may approve a wider right-of-way if necessary, for traffic, Low Impact Development, or to improve the function of an intersection.

8.4 Street Design Speeds Design considerations for all street geometrics shall reflect the following design speeds. Variances from these design speeds shall be approved by the City on a case-by case-basis.

A. Shall normally be as follows: Design Speed/ Posted Limit
1. Local 30 mph /25 mph
2. Collector Streets 30 mph/25 mph
3. Arterial Streets 40 mph/35 mph

A. Design of controlled intersections shall conform to applicable requirements Referenced Standards listed in Section 6.1of these Design Standards.

8.5 Street Geometric Design. Design of vertical and horizontal curves, and super-elevated street sections shall be to AASHTO Standards as referenced herein. Horizontal and vertical curves for a given street shall reflect the design speed of the particular classification of the street.

A. Horizontal Alignment. Horizontal alignment and curvature shall be calculated in accordance with AASHTO's "Policy for the Geometric Design of Highways and Streets."
B. Horizontal Curve.
   1. Horizontal curve radii shall be computed using the above named AASHTO guide, but shall be restricted to the following minimum center-line curve radii with 0% super elevation and standard friction factors.
      a. Local 100 ft
      b. Collector and Arterial Design pre-AASHTO guide
   2. Horizontal centerline of improvements shall be parallel to the centerline of the right-of-way.
   3. The centerline of proposed street extensions shall be aligned with the existing street centerline.
   4. Sharp horizontal curvature should not be introduced at or near the top of a pronounced crest.
C. Vertical curve.
   1. Sharp horizontal curvature should not be introduced at or near the low point of a pronounced sag vertical curve.
D. Vertical Alignment
   1. Vertical curves are required at changes in grade greater than 1.5%.
   2. Streets intersecting a Collector or Arterial Street shall be provided with a Landing averaging 5%, or less. Landings are that portion of the street within 20-feet of the nearest curb on the intersecting street at its required design full improvement width.
   3. Street grades, intersections, and super elevation transitions shall be designed to not allow concentrations of storm water to flow out of the gutter, across the street, or in a manner that is unsafe for vehicular travel.
   4. Vertical curves shall normally provide for desirable stopping sight distance, but shall at least provide for minimum stopping sight distance.
   5. Vertical curves shall be parabolic and of a minimum length computed from the formula:
      a. L = K * A
         where:
         L = length of vertical curve in feet
         K = design constant (rate of vertical curvature)
         A = algebraic difference in grades, in percent
   6. "K" is a constant for each design speed; its selection for crest vertical curves is based on stopping sight distance (SSD) requirements and, for sag vertical curves, on headlight sight distance. K values to be used for the design of vertical curves are as follows:

Design Speed MPH	Crest Minimum	V.C. SSD Desirable	SAG Minimum	V.C. SSD Desirable
20	10		20	
25	20		25	
30	30	30	35	35
35	40	50	45	50
40	60	80	55	70

E. Super-elevation. The maximum super-elevation rate permitted on City streets shall be:
   1. Local 4%
   2. Collector 4%
   3. Arterial 6%
   4. Super-elevation design shall meet all requirements for vertical alignment and shall be reviewed on a case-by-case basis.

F. Intersections.
   1. The interior angle at intersecting street shall be kept as near to 90 degrees, or perpendicular to the intersecting street, as possible. In no case shall the interior angle be less than 80 degrees for a distance of 100 feet.
   2. Standard Top Back Curb radii at intersections are as follows:
      a. Local/Local 12 ft
      b. Local/Collector 12 ft
      c. Collector/Collector
      d. Collector/Arterial
      e. Arterial/Arterial
   3. ADA sidewalk ramps shall be provided at all intersections

G. Street Grades & Slopes.
   1. Maximum grade on streets shall be as follows:
      a. Arterials 6%
      b. Collectors 8%
      c. Residential 12%
      d. Neighborhood 12%
   2. Minimum grade
      a. On streets shall be 0.4%
      b. On a curve or curb radius less than 30 feet shall be 0.5%
   3. Cross slope
      a. Minimum 2%
      b. Maximum 4%
   4. Intersections
      a. Street grades at intersections shall be no greater than 2% for at least 50 feet from the center of the intersection.

8.6 Pavement Structural Design. Pavement structure design for all streets shall be per AASHTO standards for pavement design.

A. All laboratory test results required in the AASHTO procedure shall be provided to the City Engineer

B. Roadway structural section is dependent on subsurface conditions and traffic volume. They shall be determined by developer's licensed geotechnical engineer and approved by the City Engineer. A soils investigation shall be submitted that includes:
   1. Soil borings along roadway centerline and other areas as needed
   2. Analysis on the overall bearing capacity of the soil
   3. Recommendation for structural street cross section
   4. Recommendation as to the requirements for land drains to adequately collect groundwater which could adversely affect development
   5. Cut and fill slope requirements
   6. Compaction requirements
   7. A geotechnical analysis shall be performed to determine the structural section. However, the minimum section shall be 3" Asphalt, 6" Untreated Base Course and 8" Structural Fill.

C. Pavement structure design for all streets shall be per AASHTO standards for pavement design and the following design parameters:
   1. Minimum Level of Reliability:
      a. Arterials – 95
      b. Collectors – 90
      c. Local – 80
   2. Design Life – 20 years on all roads
   3. Minimum CBR Value for Materials:
      a. Granular Borrow – 30
      b. untreated Base Course – 70
   4. Design Loads – All roads shall account for a minimum of 5% trucks
   5. Mix Design shall meet APWA 32 12 03 30% RAP Mix Design with a target binder grade of PG58-28.

8.7 Concrete Curbs

A. Required Concrete Curb Types
   1. APWA Type "A" Curb and Gutter shall be installed on all new construction.
   2. Ribbon Curb per Nibley amendments to APWA Standards

8.8 Driveways

A. Driveways -
   1. Single Family Dwellings in developed area's shall be limited to one driveway. Corner lots may be allowed two driveways, one driveway per fronting street.
   2. Multi-family Dwelling, Apartments, Industrial, and Commercial properties shall be limited to two driveways.
   3. One-way driveways shall be no closer than 75-feet between their nearest edges.
   4. Corner properties of less than 75-feet frontage on a collector or arterial street shall have no driveway located on the collector or arterial street.

Commented [SN5]: Need a permit to add any second access. Are there also times we may want to allow more then two access for like a larger development. The Future Malouf Building might need three or four access points.

Commented [SN6]: Should we add standards for Flag lot drives. Add standards about swales also.

5. All proposed commercial businesses shall be limited to two access points to a public right of way
6. Commercial Driveways shall be located a minimum of 200-feet from the centerline of an intersection with a collector or arterial street.
7. Residential Driveways shall be located a minimum of 100-feet from the centerline of an intersection.
8. Maximum width shall be 24 feet from bottom of curb cut to bottom of curb cut

B. Driveways on Arterial streets
1. Not allowed with out prior approval from Public Works Director
1. One-way driveway entrances onto an arterial Street shall be located a minimum of 125-feet from a downstream intersection, and no closer than 75-feet from an upstream intersection
2. One-way driveway exits shall be located a minimum of 75-feet from the downstream intersection and no closer than 125-feet from an upstream intersection

C. Driveway Turnaround
1. Should the length of a residential driveway be greater than 150-feet and the driveway have only one access to the street or does not loop to the street, an approved turnaround meeting Nibley City and Uniform Fire Code standards shall be provided

8.9 Cul-de-Sac

A. Length
1. Shall conform to the Nibley City Subdivision ordinance and shall be measured from the center of the cul-de-sac radius to the center of the right of way on the street perpendicular to the street of the cul-de-sac.

B. Radius
1. Turnaround area pavement shall have a min radius of 44.5 feet to edge of asphalt.

C. Curb, gutter, sidewalk and planting strip within the turnaround area shall remain the same as the road cross section leading into the turnaround.

D. Temporary
1. Where a street is designed to remain only temporarily as a dead - end street, an adequate temporary turning area shall be provided at the dead end thereof to remain and be available for public use so long as the dead end exists.
2. Shall meet Nibley City and Uniform Fire code standard radius requirements.
3. Shall be hard surfaced with concrete or asphalt

E. Partial cul-de-sacs
1. Not allowed

8.10 Speed Humps or Bumps

A. Not allowed in a public right of way

8.11 Partial Streets (tie ins)

A. Minimum tie in asphalt section shall be 3’ wide
B. Tie in section of asphalt shall have same structural pavement cross section as existing street
C. Off set crowns shall not be allowed more than two feet from center or crown of street

D. Longitudinal joints shall not be in direct wheel path
E. Angle of deflection at tie other than crown, shall be 2% max
F. Tie in section shall provide for proper drainage to curb or swale
G. All asphalt tie in shall be to a clean newly cut line in existing asphalt

8.12 Winter Time Restriction

A. No asphalt roadway section shall be cut or removed during the months of November to May, except for emergencies as determined by Public Works Director

Section 9. Landscape and Irrigation Design Standards

Commented [SN7]: Add landscape guidelines for trails and paths that go between between homes. What type of trees and landscaping are we going to require.

9.1 Sprinkler Design

A. Sprinkler designs must be submitted and approved as part of construction documentation during subdivision review process.
B. Sprinkler designs shall be designed not to spray over any hard surfaces on any property that will be owned and maintained by Nibley City.

9.2 Landscape Plan

A. Landscape plan must be submitted and approved as part of construction documentation during subdivision review process.

Section 10. Standard Details and Specifications

10.1 APWA 2017

A. Nibley City has adopted the 2012 APWA Standard Plans and Specifications, with the following amendments:

10.2 Changes to Definitions:

A. ENGINEER shall be defined as Nibley City Public Works Director.

10.3 Changes to Standard Details

A. Part1 – General Requirements
   1. Plan No 121 -Straw Bale Barrier
      a. Not Allowed
   2. Plan No 122 – Silt Fence
      a. 14 Gage 6 Inch Wire Mesh not required
   3. Plan No 124 – Inlet Protection – fence or Straw Bale
      a. Straw bale not allowed
   4. Plan no 126 - Stabilized Roadway Entrance
      a. Sediment fabric under the gravel not required

B. Part 2 – Roadways
   1. Plan No 205 – Curb and Gutter
      a. Remove note 2.B and note 3.B.1
      b. Remove Expansion Joint at beginning and end of radi
      c. Remove dowelled cold joint at new to old transition
      d. Add Type I Ribbon Curb
         1. Curb shall have a Min 2% flow away from the street
         2. Curb shall have a Max 4% flow away from the street
         3. Curb shall be 18 inches wide
         4. Curb shall be 10 inches thick
         5. Two Number 4 bars running throughout the curb
         6. Shall have a min of 8" Grade ¾" Untreated Base Course compacted to 95% relative to a Modified proctor density
   2. Plan No 206 – Curb and Gutter Connection
      a. Not required
   3. Plan 209 - Curbs
      a. Remove note 2.B. and note 3.B.1.
      b. Remove Expansion Joint at beginning and end of radi.
      c. Remove Dowelled Cold Joint at new to old transition.
   4. Plan No 225 - Open Driveway Approach
      a. Not allowed without pre approval in writing by Public Works Director.
   5. Plan 229 - Bridge Driveway Approach
      a. Not allowed without pre approval in writing by Public Works Director.
   6. Plan 235 - Corner Curb Cut Assembly
      a. Per note 1.B., Curb Return Alternate not allowed without pre approval in writing by Public Works Director.
   7. Plan No 236 - Mid Block Curb Cut Assembly

a. Per note 1.B., Curb Return Alternate not allowed without pre approval in writing by Public Works Director.

8. Plan No 238 - Detectable Warning Surface
   a. Remove Note 2.A., 2.B. and 2.D., not allowed.
   b. Color of panels to be Colonial Red
9. Plan No 254 - Patch Repair - in place hot reused asphalt paving
   a. Flowable fill not allowed without pre approval in writing by Public Works Director
10. Plan No 255 - Asphalt Concrete T-Patch
    a. Flowable Fill not allowed without pre approval in writing by Public Works Director
11. Plan No 292 - Street Name Sign Post
    a. City to order and install all street signs, cost to be paid for by developer in development agreement

C. Part 3 – Storm Drain
   1. Plan No 302 - 30" Frame and Cover
      a. This style not allowed
   2. Plan No 360 - Raise Frame to Grade
      a. Cast iron grade rings allowed, max 12"
   3. Plan No 381 - Trench Backfill
      a. Do not use flowable fill without written prior approval by Public Works Director
   4. Plan No 382 - Pipe Zone Backfill
      a. Do not use flowable fill without written prior approval by Public Works Director.

D. Part 4 Sanitary Sewer
   1. Plan No 431 - Sewer Lateral Connection
      a. If not being connected to a structure at the time of stub from main, lateral must have 45° bend up for a min of 2', then 45° vertical to the surface, and extend to within one foot of the ground surface and capped. If buried, place marker for location
      b. Tracer wire is required entire length of sewer lateral
      c. Cast iron or brass cleanout plug not required, PVC allowed
      d. Connection made with double strapped, stainless steel saddle
   2. Plan No 432 - Sewer Lateral Relocation
      a. Cast Iron not required
   3. Plan No 433 - Pipe Drop
      a. Alternate 1 not allowed
      b. Screw in plug shall not be installed

E. Part 5 – Water System
   1. All fittings shall be ductile iron, wrapped with polyethylene sheet and tape wrapped
   2. All bolts on fittings shall be Blue Whitford Xylan Coated
   1. Plan No 502 - 27 Inch Frame and Cover
      a. Inscription on cover shall say "Water"
      b. Shall have 2" recessed hole for meter antenna
   2. Plan No 503 - 38" Frame and Double Cover

a. Inscription on cover shall say “Water”

3. Plan No 511 - Fire Hydrant with Valve
    a. Muller Hydrant only, no other Hydrant shall be excepted
    b. Painted Bonnet per pressure zone not required
    c. MJ X FL tee on main line required
    d. Hydrant locator flag shall be installed on all new hydrants
        i. Bolt Mounted with spring
        ii. Fiber Glass shaft

4. Plan No 521 - ¾ Inch and 1 Inch Meter
    a. Installation in Driveways not allowed
    b. placement in new subdivisions shall be 5 feet behind sidewalk
    c. Grade to match existing TBC or Sidewalk, whichever is closer
    d. Tracer wire required from main line to setter, and connected with grounding clamp
    e. Compression coupling/fittings allowed
    f. No cross bar required
    g. Meter box to be 21 inch diameter corrugated white PE
    h. ¾ Inch meter yoke not allowed
    i. Back flow prevention in meter yoke required
    j. Blue Poly CTS from main to yoke, no copper allowed
    k. Meter shall be paid for by contractor/developer, but provided and installed by City

6. Plan No 522 - 1 ½ Inch and 2 Inch Meter
    a. Installation in Driveways not allowed
    b. Placement in new subdivisions shall be 5 feet behind sidewalk
    c. Grade to match existing TBC or Sidewalk, whichever is closer
    d. Tracer wire required from main line to setter, and connected with grounding clamp
    e. Compression coupling/fittings allowed
    f. Alternate meter box may be proposed, and approved by Nibley City Public Works Director
    g. Meter shall be paid for by contractor, but provided and installed by City

7. Plan No 523 - 3 and 4 Inch Compound meter with 2 Inch Bypass
    a. 2” Displacement meter not required (H in legend of drawing)
    b. Bypass to be constructed of DL 900 or Ductile (O in legend of drawing)
    c. Meter shall be paid for by contractor, but provided and installed by City

8. Plan No 525 - 6 Inch Compound meter with 2 Inch Bypass
    a. Vault and all associated piping to be designed and proposed by contractor for approval by Nibley City Public Works Director, before installation
    b. Meter shall be paid for by contractor, but provided and installed by City

9. Plan No 527 - 8 Inch Compound meter with 2 Inch Bypass
    a. Vault and all associated piping to be designed and proposed by contractor for approval by Nibley City Public Works Director, before installation
    b. Meter shall be paid for by contractor, but provided and installed by City

10. Plan No 529 - 10 Inch Turbo meter with 2 Inch Bypass

a. Vault and all associated piping to be designed and proposed by contractor for approval by Nibley City Public Works Director, before installation
b. Meter shall be paid for by contractor, but provided and installed by City

11. Plan No 541 - Water Service Line
    a. Type "K" copper pipe not allowed use Blue Poly CTS
    b. Tracer wire from main to setter yoke, connected to yoke with grounding clamp
12. Plan No 551 - ¾ Inch and 1 Inch Service Taps
    a. Use stainless double banded epoxy coated saddle clamp
    b. No Direct taps allowed
    c. Use Blue Poly CTS, no copper allowed
13. Plan No 571 - 4" Wash Out Valve
    a. Not allowed for permanent use, install fire hydrant
14. Plan No 573 - 6" Pressure Reducing valve with 2 Inch bypass
    a. Vault and all associated piping to be designed and proposed by contractor for approval by Nibley City Public Works Director, before installation
15. Plan No 574 - Cover Collar for Water Valves Box
    a. Steel hoop not required
    b. 12 Inch from rim of lid to outer edge of concrete
16. Plan No 593 - Pressurized Irrigation Water and Potable Water Interface
    a. Type A Not allowed

F. Part 6 – Irrigation and Landscaping

1. Plan No 613 - Irrigation Diversion Box
    a. Irrigation diversion boxes will be reviewed and approved by respective canal company
2. Plan No 614 - Irrigation Diversion Box
    a. Irrigation diversion boxes will be reviewed and approved by respective canal company
3. Plan No 621 - Stationary Head
    a. Unless otherwise approved in writing by Public Works Director, use pop up head
4. Plan No 622 - Pop Up Head
    a. Type N nozzle head - use Hunter PRS 30 or Hunter PRS 40
    b. Type R rotor head - use Hunter 4 inch I20 or 6 inch I25
    c. Flexible swing pipe to be 12 inch minimum, 24 inch maximum
    d. Use spiral barb fittings for less than 8 gallons per minute
    e. Greater than 8 gallons per minute, to be designed and proposed by contractor for written approval by Nibley City Public Works Director, before installation
5. Plan No 631 - Backflow Preventer (less than 3 inch diameter)
    a. Stop and waste to be Muller brand surrounded by 6 inches of 1 inch minus gravel material, wrapped in a filter fabric
    b. Backflow preventer device to proposed by contractor for written approval by Nibley City Public Works Director, before installation
    c. Enclosure required, to be proposed by contractor for written approval by Nibley City Public Works Director, before installation
6. Plan No 631 - Backflow Preventer (3 inch diameter and larger)

a. Backflow preventer device to proposed by contractor for written approval by Nibley City Public Works Director, before installation
b. Enclosure required, to be proposed by contractor for written approval by Nibley City Public Works Director, before installation
c. Sleeve pipe penetrations through concrete pad
d. 12" minimum clearance from edge of enclosure to edge of concrete pad all sides
e. Frost prevention not required

7. Plan No 632 - Drain Valve
   a. Manual drain valves to be proposed by contractor for written approval by Nibley City Public Works Director, before installation
   b. Automatic drain valves not allowed
8. Plan No 633 - Control Valve
   a. Valves larger than 2 inch to proposed by contractor for written approval by Nibley City Public Works Director, before installation
   b. Automatic control valve to be a 1 inch or 2 inch Hunter ICV
   c. Place concrete pavers under bottom edge of ground box
9. Plan No 651 - Wire Runs for Landscape Irrigation
   a. All control wires to be ran inside appropriately sized pvc conduit, placed between 1 to 4 inches below sprinkler lines (when ran parallel)
10. Plan No. 681 – Tree
    a. Typical tree staking detail is not allowed. Instead use 2 inch diameter wood stakes that are 8 feet in length. Drive a minimum of two stakes vertical and embed a minimum of 2 feet below tree hole. Ensure that stakes are not driven through root ball. Use a minimum of two V.I.T. cinch ties to secure tree to wood stakes. Top cinch tie to be with in 6 inches of main branching of tree. Drive stakes parallel to prevailing wind direction.

G. Part 7 – Communications, Lighting, Traffic Control, Power
   1. All street lighting to be designed and meet Rocky Mountain Power Standards and specs.
   2. Traffic signals to be designed by Professional Engineer as part of construction Drawings.

Section 11. Amendments to APWA Standard Specifications

11.1 33 08 00 Commissioning of Water Utilities

1. Add line to Table 3- for Sewer Laterals, tests required: Exfiltration and CCTV
2. Add Column for CCTV: Sanitary Sewer mains and laterals and stormwater to Table 3 in section 3.10.a.

Section 12. Construction Inspection and Acceptance Summary

This section is intended to be a summary and may not be all inclusive.

12.1 Part 1 Partial Acceptance Inspections - This inspection is intended to insure that all buried public infrastructure (water, sewer, storm drain) and at grade storm water facilities are constructed according to the plan approved by the City Engineer and to Nibley City Standards and Specifications. Key points of this inspection include, but are not limited to:

***Note: No person shall operate or turn a Nibley City water system valve, unless he or she is explicitly employed by the City of Nibley. ***

A. Acceptance Testing per APWA
B. Review of approved SWPPP (including required self-inspections)
C. GPS (by city staff) of all buried fittings, bends, tee's, valves, thrust blocks, etc.
D. Water System
    1. Periodic visual inspection of construction process and materials
    2. Visual inspections required
        a. All tie in locations
        b. Fittings and Thrust blocks
    3. Water Main Commissioning Report Required
        a. Pressure Testing
        b. Bac-T Testing
        c. Tracer Continuity Test
E. Sewer System
    1. Periodic visual inspection of construction process and materials
    2. Commissioning Report
        a. Low Air Pressure Test
        b. Obstruction and Deflection test
        c. Tracer Continuity Test
        d. Sewer Video Inspection (to be done just prior to asphalting surface)
F. Storm Water System
    1. Grades and slopes of ponds, elevations, inlet and outlet structures
    2. GPS (by city staff) of all storm water pertinences

12.2 Part 2 Partial Acceptance Inspection - This inspection is intended to ensure that open space amenities (trails, parks, etc.) and roadways (minus the asphalt and sidewalks) are constructed according to the plan approved by the City Engineer and to Nibley City Standards and Specifications. Key points of this inspection include, but are not limited to:

A. Acceptance Testing per APWA
B. Review of approved SWPPP (including required self-inspections)
C. Proof roll test of native base material, with a loaded ten wheel dump truck
D. Visual inspection required
    1. When laying and compacting base course materials
    2. When laying geo fabric or grid
    3. When compaction tests are taken by contractor's representative
E. Compaction Reports required per APWA
F. Sewer Video Inspection shall be done at this time, just prior to placing of asphalt
G. Pre Paving Meeting

12.3 Part 3 Partial Acceptance Inspection - This inspection is intended to ensure that Asphalting of the roadway surface and the construction of sidewalks are in accordance with the plan approved by the City Engineer and Nibley City Standards and Specifications. Key points of this inspection include but are not limited to:

A. Acceptance Testing per APWA
B. Review of approved SWPPP (including required self-inspections)
C. Asphalt Construction Report
D. Sidewalk Compaction Report
E. Visual inspection required of sidewalk forms prior to placing of concrete
F. ADA ramp requirements

12.4 Final Acceptance Inspection - This inspection is intended to be an all-inclusive inspection of the public infrastructure. At this time, the Public Works Director and Division Managers within the department will come to the site together to conduct the Final Acceptance Inspection. The Contractor or his/her representative must be present. All infrastructure will be re-inspected at this time. Key points of this inspection include but are not limited to:

A. Review of approved SWPPP (including required self-inspections)
B. Acceptance testing per APWA
C. Water System
    1. Fire Hydrants will be opened and closed
    2. All valves will be checked for vertical alignment of the valve box, that it is free of debris and at proper grade
    3. Meter barrels and lids will be checked for proper grade
    4. Meter Setters will be turned on and off and checked for placement in center of barrel
    5. Review of Water Commissioning Report

D. Sewer System
    1. Manholes are not leaking at joints
    2. No debris left in manholes

3. Vented lids with "Sewer" inscribed on them
4. Lids are within 1 inch of asphalt grade
5. Connections are not leaking and at proper grade
6. Steps installed properly
7. Review of Sewer Commissioning Report

E. Storm Water
1. Catch basins are free of debris
2. Inlet/Outlet grates are properly installed
3. Orifice plates properly installed
4. Overflow's constructed per plan
5. Landscaping completed per plan

F. Curb and Gutter
1. No low spots per flood test
2. No cracking/spalling
3. Backfilled properly behind curb

G. Sidewalk
1. No cracking/spalling
2. No finish deformities (footprints)
3. Proper cross slope
4. Proper slopes and area's on ADA pedestrian ramps
5. Both edges backfilled properly

H. Asphalt
1. Asphalt 1/4" above lip of gutter
2. Asphalt Construction Report
3. No puddles

I. Final Grading and Backfill
1. Area between sidewalk and curb backfilled with min 6" top soil
2. Area behind the sidewalk properly backfilled and graded to existing surfaces
3. Construction debris removed from site

12.5 Issue Final Inspection Report (punch list)- Upon completion of the Final Acceptance Inspection, the Public Works Director shall issue an Inspection Report, detailing any deficiencies that need to be corrected. The developer shall have 30 days to complete the repairs, after such date the City reserves the right to repair the deficiencies by utilizing the financial Guaranty issued to the City by the Developer, per City Ordinance.

12.6 As-Built Drawings submitted- As - Built drawings shall be required as outlined in the Subdivision Ordinance, before an Improvements Completion and Acceptance Report will be issued.

12.7 Guaranty Period- The Guaranty period unless otherwise stipulated by the City, shall be a minimum of one year from the date of the issuance of an Improvements Completion and Acceptance Report.

12.8 Improvements Completion and Acceptance Report- This report will be issued to the Developer by the Public Works Director when the completed Subdivision has passed all required inspections, and all stipulations of the Subdivision Ordinance have been met, and is ready to be accepted by the City as public infrastructure. The date of the issuance of this report will begin the one year Guaranty Period.

12.9 End of Warrantee Inspection - This inspection is intended to find any defects in workmanship or construction that become evident during the Guarantee Period. It is the responsibility of the Developer to schedule the Final Inspection after the Guarantee Period has elapsed. If any defects are discovered during the inspection, the Developer shall have 30 days to complete the repairs, after such date the City reserves the right to repair the deficiencies by utilizing the Financial Guaranty issued to the City by the Developer, per City Ordinance. At this time, the site should be stabilized and a N.O.T. filed with the state and a copy submitted to the City. If no deficiencies are discovered, or they are repaired as specified, the City shall release the Warrantee Bond.

Section 13. Bridge Standards

13.1 Professional Engineer - All design shall be performed by or under the direction of a professional structural engineer.

A. The following design standards shall be used:
   1. UDOT Structures Design and Detailing Manual
   2. UDOT Bridge Standard Drawings
   3. AASHTO LRFD Bridge Design Specifications, current edition, with current interims.

Section 14. Secondary Water System

14.1 Design of secondary Systems

A. Not allowed in Public Right of Way or Public Utility Easement
B. Purple pipe required
C. Cased when main lines cross public right of way
D. Provide proper swing joint
E. Register system with City, current contact info of system manager
F. Written canal company approval
G. Yearly certified backflow inspection

Agenda Item #10

Description	Discussion and consideration of Ordinance 19-03: Residential Planned Unit Development (R-PUD) (Second Reading)
Department	Planning
Presenter	Stephen Nelson, City Planner
Recommendation	Move to approve Ordinance 19-03: Residential Planned Unit Development (R-PUD)
Reviewed By	Mayor, City Manager, City Planner, City Attorney, Nibley City Planning Commission

Update:
Nibley City Council members Bues and Larsen and members of Nibley City staff are going to meet before the City Council Meeting to review comments received at the last City Council Meeting and to discuss recommended changes which will be presented to the City Council. Below is the report from the meeting held on May 9, 2019.

Background
The Nibley City Council has been workshopping the Residential-Planned Unit Development (R-PUD) over the past few months and has made several recommended changes to the ordinance. The changes were reviewed with the Planning Commission on May 2, 2019 and their feedback will be presented at the City Council Meeting.

As a general review, these are the goals for the proposed ordinance

1. Allow the creation of great communities
2. Help create open space with amenities and preserve natural features
3. Allow for higher density and improve the affordability of housing
4. Allow further creation of Neighbor Commercial areas, and
5. Allow the City to control where R-PUDs are placed

The R-PUD accomplishes these goals by doing the following:

1. Allow the creation of great communities

The propose R-PUD provides standards to help ensure good planning of the community. These standards are mostly contained in Sections 19.32.020 Definitions and Standards, 19.32.050 Open Space and Amenities, and 19.32.080 Development Standards. This code defines the number of trees in open space, details landscape buffers, requires connectivity the development, and requires town-homes to meet certain standards.

2. Help create open space with amenities and preserve natural features

One of the main goals of the R-PUD is to help preserve open space and protect natural features, including streams, waterways, and trees. The Code also requires the creation of public open space in the form of parks and trails depending on the size of the development. These standards can found in 19.32.020 Definitions and Standards and 19.32.050 Open Space and Amenities.

3. Allow for higher density and improve the affordability of housing

The R-PUD also allows for increased density above any current City zoning, allowing up to 10 units per developable acre. It would allow for up to 80% of units to be townhomes and a minimum of 20% of units would need to be single-family homes. This increased density and smaller lot size will help the homes in these developments to be more affordable than the standard third to half acre lot in Nibley. These regulations can be found in 19.32.030 Use Regulations and 19.32.040 Area and Density Regulations.

4. Allow further creation of Neighborhood Commercial areas

The proposed R-PUD would allow for up to 30% of the development to be developed as a neighborhood commercial. The increased density may allow a developer to plan a section of the neighborhood that would provide some local commercial needs. The increase in density may also spur commercial development in other parts of Nibley.

5. Allow the City to control where R-PUDs are placed

In section 19.32.030 (A-B) describes the location of where an R-PUD can be built. The City created a map and limited the areas that an R-PUD can be developed. These areas were selected by the City Council based on the goals to have this neighborhood created by transportation corridors, large undeveloped tracts of land, and having some distance from existing neighborhoods.

The following items are the primary changes made by the City Council from the recommendation from the Planning Commission

Map

The reference to the proposed map will be contained in 19.32.030 (A). This section provides that only areas within the map can be approved for an R-PUD. The half-mile requirement has also been removed. The map also includes areas outside of Nibley City that may be incorporated into the City in the near future.

Density

In Section 19.32.040, there have been a couple of changes made, including a minimum amount of units for an R-PUD development. The code proposes that a mixed development must contain a minimum of 120 units and developments must contain a minimum of 50 units. There is also required buffering next to single-family homes. The proposed change reads as follows:

A proposed R-PUD adjacent to existing single-family homes must place single family homes adjacent to the established single-family homes unless otherwise buffered by an arterial roadway or 300 foot width of open space including a landscaped buffered area as defined within this chapter.

Open Space and Amenities

The Tables in 19.32.050 have been updated and the 300 unit cap has been removed. The Amenity Table only goes up to 500 units, with a note that developments over 500 units must supply adequate and proportional amenities based on the table. Staff has also added a minimum acre of open space requirement for single-family and mix R-PUD on less than 20 acres. The minimum open space requirement for townhomes is 5.5 acres and for single-family developments, the minimum is 3 acres.

HOA and Development

Section 19.32.050 (B)(1) requires the developer to be a member of the Owners Association while the subdivision is being developed. All Mixed developments shall provide office space for the Owners Association constructed with the development.

ORDINANCE 19-03

AN ORDINANCE ADOPTING A RESIDENTIAL PLANNED UNIT DEVELOPMENT OVERLAY ZONE

WHEREAS, the Nibley General Plan states that, "Nibley will emphasize the conservation of open space and, using that conservation process, will incorporate a variety of housing forms"; and

WHEREAS, the Nibley General Plan states an update and adoption of a new Planned Unit Development Ordinances as a listed goal for Residential Development and Housing.

WHEREAS, Nibley City wishes to conserve, protect and create unique spaces within the City that will be visually and physically accessible to the public; and

WHEREAS, Nibley City wants to allow more affordable options within the City while enhancing the community charter and amenities available to Nibley residents.

WHEREAS, Nibley City wants to maintain its rural character while allowing property owners to use their property to its highest and best use.

NOW, THEREFORE, BE IT ORDAINED BY THE NIBLEY CITY COUNCIL OF NIBLEY, UTAH THAT:

1. The attached Residential Planned Unit Development Overlay Zone Ordinance is adopted.

2. All ordinances, resolutions, and policies of the City, or parts thereof, inconsistent herewith, are hereby repealed, but only to the extent of such inconsistency. This repealer shall not be construed as reviving any law, order, resolution, or ordinance, or part thereof.

3. Should any provision, clause, or paragraph of this ordinance or the application thereof to any person or circumstance be declared by a court of competent jurisdiction to be invalid, in whole or in part, such invalidity shall not affect the other provisions or applications of this ordinance or the Nibley City Municipal Code to which these amendments apply. The valid part of any provision, clause, or paragraph of this ordinance shall be given independence from the invalid provisions or applications, and to this end the parts, sections, and subsections of this ordinance, together with the regulations contained therein, are hereby declared to be severable.

4. This ordinance shall become effective upon posting as required by law.

PASSED BY THE NIBLEY CITY COUNCIL THIS ____ DAY OF _____, 2019.

ATTEST:

_____ _____

David Zook, City Recorder Shaun Dustin, Mayor

19.32 Residential Planned Unit Developments (R-PUD)

19.32.010 Purpose And Intent

A. Intent: This section provides enabling authority and standards for the review and approval of applications for Residential Planned Unit Developments (R-PUD's). The intent of this ordinance is to provide an alternative to traditional subdivision design by encouraging innovation and offering some flexibility in the design of residential developments, which may incorporate the permanent preservation of amenities, agricultural lands and other valuable natural and cultural resources, as well as providing a variety of amenities for the enjoyment and benefit of the citizens of Nibley.
B. Purpose: An R-PUD is an overlay rezone. That is, applicants apply for the overlay to be applied, allowing them to receive the density outlined herein in exchange for public amenities, all while retaining the original zoning of the property. The Planning Commission and City Council may approve, deny or approve the R-PUD with conditions, and no applicant has any entitlement to the approval of an R-PUD.

19.32.020 Definitions And Standards

A. Amenity: Natural or man-made feature which enhances the development. These include features such as picnic areas, walking paths/trails outside of required sidewalks, playgrounds, sports fields, club houses, swimming pools, splash pads, etc.
B. Buffer: A landscape and planted area along a public right-of-way, street, or neighboring development, a buffer must be at least thirty (30') feet wide. Buffers must be landscaped, at the sole cost of the developer, and shall provide for every hundred (100) linear feet of buffer, four (4) deciduous trees, five (5) evergreen trees, and fifteen (15) shrubs. Tree and shrub species must be approved by the City's arborist or the City's Park Director. Trees and shrubs shall be planted within thirty (30) feet of the right-of-way or R-PUD boundary where required~~, neighboring development, or public park~~. Irrigation system shall be installed~~provided~~ by the developer and shall be designed and installed to Nibley City Standards. Buffer areas shall be owned and maintained by an Owners Association.
C. Constrained and Sensitive Land: Land which is generally unbuildable without engineered ground modifications, or which contains features including, but not limited to Federal, State, or municipally designated wetlands, water bodies, floodplains, slopes greater than 20%, faults, canals, and other geologically or environmentally sensitive features that require mitigation, special insurance, or permits from government authorities to allow

Commented [SN1]: Have not had great luck within Utah.

Commented [RP2]: 24 plants per 100 linear foot, 1 plant every 4 feet or so? Am I reading that right? Just want to double check. It seems high, but I'm no plant expert

Commented [SN3]: Just make sure it is update and reference where it it needs to be.

development. This land may be used as amenities if it complies fully with conditions within this chapter for qualification of amenities.

D. Dwelling Unit: Any building or portion thereof which is designed for or occupied by one family for living, sleeping, and/or eating purposes. A dwelling unit may include up to two (2) persons per unit to whom rooms are rented in addition to a family related by blood, marriage or adoption, but if the number of such additional persons exceeds two (2) or if they use or are furnished separate cooking facilities, whether temporary or permanent, such additional persons shall be considered a separate dwelling unit

~~D.~~E. Meadows: Land vegetated with native species of grasses, trees, forbs, and flowers, either undisturbed or constructed, that can be sustained without supplemental irrigation. Actively used pasture and agricultural land are not considered Meadows under this definition.

~~E.~~F. Net Developable Land: Net Developable land shall include the total area of the proposed development minus land that is required by Nibley City Ordinance to be dedicated to the City, including, but not limited to:

1. Public access rights-of-way, including roadways and sidewalks
2. Land required to be dedicated along waterways
3. Preservation lands with infrastructure installed to City standards by the developer as part of the development process (public and private parks, trails, etc.)
4. Constrained and Sensitive Land, as defined herein
5. Easements, lands dedicated to the City for preservation space but without public rights of access, and other utility or general rights-of-way without public access.
6. Constrained and Sensitive Land, land dedicated along waterways, and other natural landscape or open space land may be considered net developable land when calculating for density if such land can be enhanced with trails, public access, picnic areas, park amenities, or other improvements.

~~F.~~G. Open Space: Any space in an R-PUD that does not contain any amenities, except for park amenities, as defined herein, buildings, parking lots or private yards. All Open Space must be completely landscaped with sod, trees, xeriscape, gardens or agricultural use. Natural features such as wetlands, meadows, tree stands and Constrained and Sensitive Lands may also be considered Open Space. Private and public parks shall also be counted as Open Space.

~~G.~~H. Private Parks: A tract of land presently owned or controlled and used by a private entity or group and to which only members of that private entity or group have access or use rights. Private Parks must contain at least one amenity as defined herein). Private Parks must contain one (1) tree for every 1,000 sq. ft. and 60% of the area must be planted with sod. Sod and tree requirement may be altered for approved club houses, sport courts/fields, swimming pools, splash pads, covered pavilions or other approved recreation uses.

~~H.~~I. Owners' Association: A community association which is organized within a development in which individual owners share common interest and responsibilities for open space, landscaping, or facilities.

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Commented [RP4]: private and public?

~~I.~~J. Public Park: A publicly-owned tract of land landscaped and developed for the general public. Public Parks, as defined for R-PUD, must contain at least one amenity as defined herein. Public Parks must contain one (1) tree for every 1,000 sq. ft. and 60% of the area must be planted with sod. All landscaping must meet Nibley City Standards. Sod and tree requirement may be altered for approved, sport courts/fields, swimming pools, splash pads, covered pavilions or other approved recreation uses. Public Parks shall be placed on the border of each development so that it may easily be accessed by the community as a whole. Each public park must contain a public bathroom.

~~J.~~K. Single Family Dwelling Unit: A dwelling unit owned in fee and located on an individual lot and which is not attached to any other dwelling unit by any means.

~~K.~~L. Townhome: A dwelling unit, with a private entrance, which is part of a structure whose dwelling units are attached horizontally in a linear arrangement and having a totally exposed front and rear wall to be used for access, light, and ventilation. Each townhome unit must be on its own parcel.

~~L.~~M. Tree Stand: A group or cluster of trees within a geographic location that are occurring naturally or artificially.

~~M.~~N. Waterway: Surface water runoff and drainage, drainage ditches and irrigation waterways, whether surface or subsurface and natural waterways including creeks, streams, springs, rivers, ponds, and wetlands.

~~N.~~O. Planned Unit Development: For the purpose of this chapter "residential planned unit development" (R-PUD) means an integrated design for the development of residential uses to allow flexibility and initiative in site and building design and location, in accordance with an approved plan and imposed general requirements, as specified by this chapter.

Commented [SN5]: Change town home to town-homes

19.32.030 Use Regulations

A. An R-PUD may be applied for by following the steps listed in 19.32.070 (A) on properties designated on the R-PUD Application Map in NCC 19.32.030(B) ~~(A)(1)~~. These areas keep their base zoning, with that zoning's standards, conditions, and restrictions, unless the City Council approves the use of the R-PUD through an R-PUD application process. R-PUDs are prohibited in all other areas. The City Council, with a recommendation from the Planning Commission, may make changes to what parcels are labeled on the R-PUD Application Map by following proper ordinance change procedures.

Commented [RP6]: Looks like you've identified subsection B as the map

B. R-PUD Application Map (insert map or link to map)

C. The following are permitted uses in an R-PUD:
   1. Single Family and Townhome dwelling units may be permitted uses, as defined within this ordinance.
   2. All other uses not defined within this chapter shall comply with the underlying zone, lot size, and the Land Use Chart in NCC 19.20, unless otherwise specified within this ordinance.

D. Any uses not specifically permitted or conditionally permitted are prohibited.

E. Animal Use: All animal uses shall be in accordance with Nibley City Code.

F. Up to 30% of the Nnet Ddevelopable Aarea may be approved for neighborhood commercial use as part of an R-PUD. These uses shall comply with Nibley's City's Neighborhood Commercial Zone Use Chart and standards as listed in NCC 19.14.050. Commercial use must be concentrated in one location. These parcels shall be labeled on the plat as Neighborhood Commercial.

G. When calculating density for dwelling units, any Neighborhood eCommercial area shall be subtracted from the Net Developable Areagross acres of the R-PUD.

19.32.040 Area And Density Regulations

A. Housing Types: Only single-family homes and town homes are allowed in the R-PUD in residential areas. The density shall be based on Net Developable Acres of the development as follows:
   1. Single Family Homes: Equal to or less than 5 units per Net Ddevelopable Aacre
      i. Single Family Home R-PUD must contain a minimum of 50 units.
   2. A Mix of Single Family and Townhomes: Equal to or less than 10 units per Net dDevelopable aAcre. Up to 80% of dwelling units can be townhomes.
      i. A Mix of Single Family and Townhomes R-PUD must contain a minimum of 120 units.

B. A proposed R-PUD adjacent to existing single-family homes must place single family homes adjacent to the established single-family homes unless otherwise buffered by an arterial roadway or 300 foot width of open space including a landscaped bBuffered area as defined within this chapter.

A. 19.32.050 Open Space and Amenities

A. Each R-PUD shall provide the following types and amounts of open space and amenities:

Dwelling Type	Min Open Space Requirement Percentage of Net Developable Acres Required to be used for Amenities and Open Space
Single Family	20%
A Mix of Single Family and Townhomes	35%

Minimum Amenity

Commented [RP7]: Related to the "gross acres", the ordinance uses a lot of similar terms for what I think is the same concept: "net developable area" "net developable acres" "developable acre" etc. Since "net developable land" is the defined term, it should be used or these terms should be clarified as to how they relate to the defined term

Commented [RP8]: How does "gross acres" which doesn't seem to be defined relate to "net developable land," which is defined above? Is it a different calculation? the same?

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Commented [SN9]: Want density to go to 12 to open space to be lower

Number of Units	Park Area	Pavilion	Swing Set	Playground	Clubhouse, Pool, or Splash Pad	Sports Court/Fields
Less Than 100	1.5 Acres	-	-	1	-	-
101-150	2.5 Acres	-	1	1	-	-
151-200	3.5 Acres	-	1	2	-	1
201-250	4.5 Acres	1	1	2	-	1
251-300	5.5 Acres	1	1	2	1 of the above options	1
301-400	6.5	2	2	3	2 of the above options (At least one pool or Splashpad)	2
401-500	7.5	2	2	3	2 of the above options((At least one pool or Splashpad)	2
501 +	*	*	*	*	*	*

Commented [SN10]: Make sure it is clear that it is only two items, not 2 each.

Commented [SN11]: Define Splash Pad Size

1. Development over 500 units must supply adequate and proportional amenities based on the table above.
2. Development containing under a total of 20 gross acres must provide a minimum open space as follows:
    a. Single Family: 20% open space as defined within this Chapter or 3 acres of open space, whichever is greater
    b. Mix: 35% Open space as defined within this Chapter or 5.5 acres of open space, whichever is greater
3. Development may be phased according to NCC 21.02.080 and the Development Agreement. Public and Owners' Association-owned amenities shall be fully developed and operational in conjunction with each phase of the subdivision as a percentage of the total developed value of the subdivision (for example, if 25% of the dollar value of the development is being constructed, then a minimum of 25% of the dollar value of the built-out amenities must be developed). The determination of value, construction sequencing, and acceptance criteria shall be specified in the Development Agreement. Until improvements are accepted by the City for the attendant phase, no permits shall be issued for subsequent phases.

4. All amenities designed and designated to be transferred to City ownership and maintenance must meet Nibley City Design Standards. The City must review and approve any improvements that will be owned and maintained by the City as part of the construction drawing review.
5. This chart does not cover all potential amenities. The applicant may apply for other amenities that would benefit the R-PUD. Any proposed amenities not listed, must be approved by the City Council. The City Council may also allow a substitution of amenities on the table above. These substitutions may only be approved if the cost, value and use of the amenity matches or is greater than the require amenity. An applicant may add additional amenities above and beyond the requirements of this section.
6. Public and Private Park ~~S~~space may be combined or spread throughout the development. Each Park ~~Parcel~~ shall be a minimum of .25 acres. Each dwelling unit shall be within a quarter mile of a park within the development, unless otherwise approved by the City Council. Parks may be public or private. Each public park development and placement within an R-PUD shall be agreed upon by the applicant and the City Council. Park ~~S~~space may not include alleyways, back yards, gangways, front yards, forecourts, private patios, porches, driveways, etc.; unless proper amenities and access are provided.
7. All amenities shall meet any federal, state, city, or other standards that apply.
8. Sports Courts/Fields: include a facility/amenity that is built for one of the following: Tennis Court, Pickleball Court, Basketball Courts, Soccer field, Volleyball pit, Baseball field, Softball field, wallball, golf course, disc golf course, or others as approved by the City Council.
9. Picnic Area: Two or more picnic tables for use by 10 or more persons.
10. Pavilion: A covered picnic area. Each Pavilion must be designed for use of a minimum ten or more people.
11. Club House: A building available to community members to house a club or social organization not conducted for private profit. Club Houses shall be owned and maintained by a homeowner's association. A club house shall be at least 1000 sq. ft. in size.
12. Playground: an area provided for children to play on. Each Playground must be designed for children twelve and younger. A playground must include features to appeal to children within the above age group including some of the following: slides, monkey bars, ladders, tunnels, climbers, bridges, ramps, platforms, etc. All playground equipment must be of commercial grade. Each playground must include a minimum of 8 features.
13. Pool: A recreation facility designed and intended for water contact activities that serves an R-PUD. No pool shall be less than 800 sq. ft.

C. Maintenance of Amenities
    1. All R-PUDs must establish and maintain in perpetuity an Owners Association if there are open space and amenity under common ownership, or as otherwise required by federal, state or Nibley City law. The Developer shall be a member of said Owners Association while the subdivision is being developed.

The Owners Association for Mix developments shall have office space for the Owners Association constructed a part of the development.

2. Costs: Unless otherwise agreed to by the City, the cost and responsibility of maintaining amenities shall be borne by the fee owner of the property that is part of the R-PUD or Owners Association.
3. Preliminary Maintenance Plan: A Preliminary Maintenance Plan shall be submitted with the preliminary plat for proposed maintenance of amenities within the development. This plan shall outline the following:
    a. The proposed ownership and responsibility for maintenance of the amenities;
    b. The proposed use of the amenities' and how each parcel of amenities meets the standards listed in this Chapter;
    c. The size of each amenities parcel; and
    d. The proposed concept plan for landscaping of the amenities.
4. Final Maintenance Plan: The developer shall submit a plan outlining maintenance and operations of the amenities and providing for and addressing the means for the permanent maintenance of the amenities within the proposed R-PUD application for the subdivision. The developer shall provide a final maintenance plan with the final plat and the plan shall contain the following:
    a. Documents and plans as listed in for the Preliminary Maintenance Plan.
    b. A description of the use of the amenities and how that use complies with this Chapter;
    c. The establishment of necessary regular and periodic operation and maintenance responsibilities for the various kinds of amenities (e.g., lawns, playing fields, meadow, pasture, wetlands, stream corridors, hillsides, clubhouse, pool, woodlands, etc.);
    d. The estimated staffing needs, insurance requirements, and associated costs, and define the means for funding the maintenance of the amenities, and the operation of any common facilities located thereon, on an ongoing basis, including means for funding long-term capital improvements as well as regular yearly operating and maintenance costs; and
    e. The landscaping plans for parcels that will be owned by an Owners Association or by the City.
5. Approval: The Final Maintenance Plan must be approved by the City Council prior to or concurrent with final plat approval for the subdivision. The Final Maintenance Plan shall be recorded against the property within the subdivision before any property or lots are sold or transferred and shall include provisions for the City's corrective action rights as set forth herein. Any changes or amendments to the Final Maintenance Plan must be approved by the City Council.
6. The developer shall offer an approved letter of credit, bond or escrow for all proposed improvements as set forth in NCC 21.14.

Commented [SN12]: A little much.

Commented [RP13]: I made a reference to the subdivision ordinance for performance guarantees, but is this a different kind of guarantee specific to the maintenance of amenities?

7. Failure to Maintain: The City may assume responsibility for the maintenance and operation of any portion of any amenity or common facility within an R-PUD in the event the party responsible for maintaining or operating the amenity fails to do so in accordance with the terms of this Ordinance, the approved Maintenance Agreement, any Conditional Use Permits, Business Licenses or any other agreements between the City and the developer, owners, or other parties responsible for maintaining or operating amenities. If the City assumes responsibility under this paragraph, any remaining development escrow or bond funds may be forfeited, costs, fees, and liens for maintenance costs shall be assessed as described herein, and any permits, licenses or operating agreements may be revoked or suspended by the City in the City's sole discretion. Owners shall not impede the City in its efforts to maintain the amenities.
8. Corrective Action: The City may enter onto any amenity provided as part of an R-PUD and take such corrective action, including extended maintenance, repairs, modifications, or the execution of additional agreements, as the City determines is necessary for the amenity to satisfy the terms of this Ordinance, the approved Maintenance Agreement, any Conditional Use Permits, Business Licenses or any other agreements between the City and the developer, owners, or other parties responsible for maintaining or operating amenities. The costs of such corrective action shall be charged to the owners and may include administrative costs, legal costs, and penalties. Such costs shall become a lien on said properties. Notice of such lien shall be filed by the City in the county recorder's office. The maintenance plan and all other documents creating or establishing any Association or conservation organization for the property shall reference the City's corrective action authority set forth herein and shall be recorded against the property before any property or lots are sold or transferred.
9. Implementation and Maintenance: The developer of the subdivision shall fund implementation and maintenance of the amenities until such time as the control of the amenity is transferred to the ~~a~~ owner listed in the maintenance plan. The developer shall address the implementation, development, maintenance and transfer procedures in the sensitive area designation plan map or master development plan, as applicable.
10. Maintenance Access: The developer of the subdivision shall provide sufficient maintenance access from a dedicated right-of-way to all amenities and constrained and sensitive lands within the R-PUD to allow the owner of the~~se~~ property to have sufficient access.

Commented [SN14]: Normally, this take place at the recording the plat, then the developer covers the development of the improvements.

19.32.060 General Requirements

A. The R-PUD should be compatible with surrounding land uses, building types and physical features of the site. Specific requirements are included below:
B. Determination of Net Developable Land~~Developable Area~~:

Commented [RP15]: Is this different than "net developable land" defined above? It doesn't seem to be. I would recommend using the one term throughout

1. In calculating what portion of the project is considered developable, areas designated as constrained and sensitive land may not be included in the project size.
2. If the constrained and sensitive land, property along waterways or other natural landscapes may reasonably be turned into a publicly-accessible amenity, it may be re-included in the project size.
3. Net Developable Land must comply with the definition within this chapter.

C. Site Development Standards: The following shall serve as the setback/site development standards for each proposed R-PUD.

	Single-Family Home	Townhome
Minimum Lot Size (sq. ft.)	4,500	-
Minimum Frontage	50’	-
Primary-Use Setbacks		
Front Yard	20'	20'
Front Porches	10'	10'
Side Yard	5'	10'
Side Yard Porches, Deck, Overhangs	5'	5'
Side Yard Adjacent to Streets	20'	20’
Rear Yard	15'	15’
Maximum Height	40'	40'

Accessory-Use Setbacks		
Front Yard	20'	20'
Side Yard	3'	3'
Side Yard Street	20’	20’

Rear Yard	1'	1'
Maximum Height	15'	15'

1. Setback and frontage requirements shall apply to each building, and not each dwelling unit
2. All other setbacks shall comply with Nibley City Code.
3. All buildings and landscaping shall comply with NCC 19.24.110 Clear View of Intersecting Streets as amended.

D. Signs: Any signs proposed for the development, other than traditional street signs, must conform to Nibley City Code.

E. All property developed as Townhomes, must be subject to covenants, conditions and restrictions and must be subject to and governed by an owner's associations in compliance with Utah Code Annotated Title 57.
   1. In addition, each owner's association must have a governing board made up of property owners within the R-PUD, but general administration and maintenance of the development may be handled with a property manager. Any R-PUD that contains town-homes must have onsite management, outside professional management or onsite point of contact.

F. Amenities: Maintenance and ownership of amenities may be provided for under one of the following options as approved by the City Council in the City Council's discretion:
   1. Dedication of the land to Nibley City as a public park or parkway system; or
   2. Granting to the city a permanent amenities easement on and over the said private amenities to guarantee that the amenities remain perpetually in recreation use, with ownership and maintenance being the responsibility of a homeowners' association established with articles of association and bylaws; or
   3. Adoption of covenants, conditions, and restrictions and creation of an owners' association that provides for the payment of common expenses for the upkeep of common areas and facilities.

G. Bond: For each phase, the developer shall be required to provide ~~a~~guarantees as set forth in NCC 21.14. ~~surety or cash bond in an amount equal to 100% of the estimated cost of improvements including amenities, guaranteeing the completion of the development of the amenities, or a phase thereof. When completed in accordance with the approved plan, the bond shall be released. The City shall approve partial releases on a bond at the completion of and approval of improvements at the request of the developer as detailed in NCC 21 Subdivision Regulations. If uncompleted at the end of one (1) year after notice to proceed, the city will review the progress and may use the bond funds to make the improvements to the amenity's areas in accordance with the approved plan.~~

H. Subsequent Subdivision: If the R-PUD is to be subsequently divided either as a subdivision into phase development parcels or separately owned and operated units, such division boundaries shall be indicated on the development plan and preliminary subdivision approval concurrently obtained in the case of a subdivision.

I. Subdivision Regulations: Any part of an R-PUD that is proposed as a subdivision is subject to the provisions of the subdivision title and the standards, conditions, and

Commented [RP16]: There is less risk of conflicting requirements if general requirements for bonding, phasing, etc. just point to the standard subdivision ordinance requirements, unless you're making specific changes.

restrictions of the base zoning, unless superseded ~~for~~ by the provisions ~~listed within~~ of this ordinance.

19.32.070 Approval Process

A. An R-PUD is an overlay zone. That is, developers apply for the overlay to be applied, allowing them to receive the density bonuses outlined herein in exchange for public amenities, all while retaining the original zoning of the property. The City Council, with a recommendation from the Planning Commission, may approve, deny or approve with conditions as a legislative action and no applicant has any entitlement to the approval of an R-PUD.
B. Application Submission: An application for an R-PUD shall be submitted to the City with all required documents, maps, plats and plans as listed below.
C. Procedure:
    1. An R-PUD shall go through the following process to gain approval:
        a. Development Committee: An applicant shall have a preliminary meeting with a development committee composed of applicable City staff, a member of the Planning Commission and a member of the City Council to review a concept plan before preliminary application. Overlay Zone Application: Applicants shall submit an R-PUD Overlay Zone and preliminary plat application with the following:
            i. A complete development plan application that is duly signed by the property owner or the owner's representative and that includes a legal description of the property and a nonrefundable application fee.
            ii. A vicinity map showing the approximate location of the subject parcel in relation to other major areas of the city.
            iii. A general description of the proposed development, together with a map indicating the general development pattern, land uses, densities, intensities, open spaces, parks and recreation, and how the project is coordinating with existing and planned trails, sidewalks and pedestrian walkways and any other important elements within or adjacent to the project.
            iv. Sufficient detail to indicate how the proposed development complies with the development standards for residential and nonresidential uses according to Nibley City Code and Design Standards.
            v. A description of architectural design standards that will apply to all buildings within the development plan.
            vi. A data table showing the total number of lots/units, floor area ratio (FAR) calculations (for commercial space only), square footage of proposed buildings by floor, number of proposed garage parking spaces, if any, number of proposed surface

Commented [SN17]: Allow, but not require all plats. Developer may provide a plat, but it could be updated or might be unrealistic

Commented [SN18]: Ensure that preliminary plat and overlay zone application can happen at the same time.

parking spaces, percentage of buildable land, percentage of open space or landscaping and net density of dwelling units by acre.

vii. Existing and proposed infrastructure including proposed roadways, utility locations and capacities and the estimated impacts of the proposed development plan on all public utilities including culinary water, secondary water, wastewater, transportation, storm drainage, fire protection, solid waste, parks and recreation demands of the proposed project.

viii. Existing physical characteristics of the site including all constrained and sensitive land

ix. Identify how environmental issues, if any, will be protected or mitigated, i.e., wetlands, historical sites, endangered plants and animals.

x. Conceptual information relating to storm drainage including 100-year 24-hour drainage flows, 10-year 24-hour stormwater flows and proposed storm drainage facilities.

xi. Major street layout that meets Nibley City standards.

xii. A general description of controlling entities and methods such as the use of CC&Rs, Owners Associations, architectural or design review committees or associations proposed to ensure that internal compatibility related to issues such as site design and architecture will be maintained over the life of the project.

xiii. A list of property owners' names and addresses within three hundred feet (300') of the subject property and stamped and pre-addressed envelopes (return address to be left blank) for all property owners within three hundred feet (300') of the propose development.

xiv. A list of land adjacent in the same ownership.

xv. An electronic file of all submitted plans in PDF format or other electronic format determined by city staff. Such other information shall be included as may be necessary to determine that the contemplated arrangement of uses makes it desirable to apply regulations and requirements differing from those ordinarily applicable under this title.

xvi. A preliminary plat that complies with Nibley City Subdivision Code and all other applicable code for the subdivision. Preliminary plat approval may be granted at the same time of approval of the overlay zone.

b. Approval with Development Agreement:

i. Before an R-PUD Overlay Zone can be approved, the City Council and applicant must enter into a development agreement which shall be recorded on title to the real property that is the subject of the development and which shall be binding upon and shall run with that property. The development agreement must include the following provisions:

Commented [SN19]: That is not really possible at this stage. Floor Space?

Commented [SN20]: Needs a new home. Do not need as part of

a. That the development must be developed in a way that is substantially similar to the site plan and proposed amenity improvements.
b. That the preliminary site plan and all supporting documentation shall be attached to the development agreement.
c. That any development of the proposed real property shall not exceed the number of units as listed on the preliminary plat.

ii. The applicant shall provide the necessary documentation to establish that any holders of interests that are superior on title to the development agreement, including, but not limited to, liens, mortgages, deeds of trust, and other similar devices have been made subordinate to the development agreement.
iii. Signing and recording of the development agreement, and the subordination to the development agreement of any superior interests on title, must be accomplished before an R-PUD Overlay Zone may be approved.

c. Final Subdivision Approval: Once the overlay zone and development agreement have been recorded, an applicant may apply for final plat approval. An applicant shall provide the following:
i. An applicant shall follow the standards as listed in NCC §21 for Final Plat approval of a subdivision.
ii. An applicant must submit all construction and civil engineering drawings and detailed plans for all amenities for the proposed phase of the development. These shall include landscape drawings and details. The City Engineer shall review and ensure all plans meet Nibley City standards.
iii. A maintenance plan that complies with the terms of this chapter.
iv. The Planning Commission shall review and make a recommendation for final plat approval, approve with conditions, or denial to the City Council.
v. The City Council shall approve, approve with conditions, or deny the final plat application base on the standards listed within Nibley City Code, Design Standards, and the applicant's compliance with the Development Agreement.

D. R-PUD Considerations: In approving with conditions, denying or approving an R-PUD proposal, the Planning Commission and City Council shall consider the following in addition to all other considerations required by law:
1. Design of Buildings: The architectural design of buildings and their relationship on the site and their relationship to development beyond the boundaries of the development.
2. Streets and Parking: Which streets shall be public, and which shall be private, the entrances and exits to the development, and the provisions for internal and

external traffic circulation and off-street parking.

3. Type, Size, and Location of amenities.
4. Landscaping and Screening: The landscaping and screening as related to the several uses within the development and as a means of its integration into its surroundings.
5. Signs: The size, location, design and nature of signs, if any, and the intensity and direction or area of floodlighting.
6. Ability to Complete Project: The demonstrated ability of the proponents of the R-PUD to financially carry out the proposed project under total or phase development proposals within the time limit established.
7. Criteria for Issuing Conditional Use Permit: Criteria used in NCC 19.28 of this title.

E. Revisions: In the event an approved preliminary or final site plan requires revision by the developer, the site plan, and its revision shall be approved by the Nibley City Council with the recommendation of the Planning Commission. In the event revision is for a final site plan, all property owners in the development shall be notified in writing by the Planning Commission that a revision has been submitted and will be considered by the Planning Commission.

F. Building Permit Issuance: The building inspector shall not issue any permit for the proposed building or use within the project unless such building or use is in accordance with the approved development plan and any conditions imposed, including completion of amenities. Time Limit: Unless there is substantial action leading toward completion of a R-PUD or an approved phase thereof within three years from the date of approval, such approval shall expire unless after reconsideration of the progress of the project an extension is approved by the City Council.

19.32.080 Development Standards

These standards are intended to create R-PUD developments that will establish permanent neighborhoods and provide a sense of community. To meet the intent of this section, the following provisions shall be applied to all new multi-family residential and mixed-use developments. For exterior remodels, these standards shall be required. Commercial areas of an R-PUD must comply with Nibley City Commercial design standards for commercial developments.

A. Townhome Architectural Standards.

1. General Design Concepts. New development shall be designed for its specific context within Nibley City. Developments shall possess a similar design theme, and the site shall be designed such that the overall development is cohesive. Building architecture, exterior materials, and colors shall coordinate.
2. All facades shall include architectural treatments to provide visual interest and to differentiate individual units. These design standards shall be applicable to all sides of a building, with each façade (front, rear, and side) being required to meet the terms of this Section.

Commented [SN21]: Show past projects.

3. Building Materials. The majority of each façade (51% or more of the wall area excluding windows and doors) shall be constructed of the following hard surface building materials: brick, stone, stucco, treated or split face decorative block (CMU), fiber cement siding, concrete, or other durable building material as approved by the City Council. EIFS or untreated concrete block (CMU) may be allowed as an accent or secondary material only. The Planning Commission may approve metal as an exterior building material and as a primary material on a case-by-case basis if an applicant can show that the type of metal is of a high grade and provides architectural quality to a building. Vinyl siding is prohibited.
4. Vertical Separation. Buildings in excess of one (1) story in height shall exhibit architectural detailing that establishes a vertical separation between lower and upper stories. This may be accomplished by a mid-façade cornice or trim, a change in material, style or color, a façade step-back or roof pitch with dormer windows, or other methods
5. Building Entrances. Building entrances shall have porches and shall be oriented toward the street or an open space area and provide connecting pedestrian access between the street, parking or open space areas.
6. Variation. Townhome dwellings units shall be designed with architectural wall variations spaced at intervals of thirty (30) to fifty (50) feet in linear width, depending on the size of the project~~.~~. The following architectural features shall be incorporated into the design of the building:
    a. Change in building materials;
    b. Building projections measuring at least twelve~~eighteen~~ (1~~8~~2) inches to three (3) feet in depth based on the scale of the proposed building;
    c. Awnings and lighting, or another architectural variation as approved on a case-by-case basis that creates visual interest.
7. Garages. Townhomes shall be designed oriented toward public roads with rear loading garages accessed by a paved parking area or alleyway~~.~~. Rear loading garages are highly encouraged for townhomes located on interior project roads with units oriented toward a road or common courtyard area. Front loading garages may be allowed for townhomes that do not have any portion of the building adjacent to a current or planned public road or street outside of the development. Multiple unit structures shall have garages incorporated into the primary structure. At least fifty percent (50%) of units shall contain a two-car garage. Detached garages are prohibited in R-PUDs

B. Site Design Standards.
1. Natural features. R-PUD~~'~~s shall respect and maintain natural features such as existing trees, hills, drainages, wetlands, bodies of water, or other natural features.
2. A landscaping plan for the front yards shall be included. The landscaping plan shall include at least one (1) tree for every dwelling unit, half of which shall be coniferous evergreen trees and two (2) shrub of five (5) gallon size for each dwelling units. The coniferous trees shall be at least six (6) feet in height and the deciduous trees shall be at least one and a half (1.5) inches in caliper.

Commented [SN22]: Wood Resens Composit Siding.

Commented [SN23]: building

Commented [SN24]: Why have a max of three feet.

Commented [SN25]: Clarify for exterior.

Commented [SN26]: Get rid of ever green tree

Commented [SN27]: 5 gallon too big, change to 1 gallon.

3. Connectivity. R-PUD shall provide connectivity throughout the development. All improvements shall consider vehicle, bicycle, and pedestrian access.
    i. Street Design: All street designs shall comply with Nibley City's street standards and the General Plan and Transportation Master Plan. Each development shall provide at least two working access points that provide access to an existing street right-of-way. Additional access points may be required in order to facilitate an adequate and convenient circulation system within the City. Such additional access points will be located where they will implement the City's Transportation Master Plan, connect to existing street rights of way, or provide access for the logical development of adjacent, undeveloped properties.
    ii. All streets are encouraged to incorporate traffic calming and beautification methods as listed in Nibley City design standards and Transportation Master Plan. This included islands, bulb-outs, roundabouts, etc. Each traffic calming measure shall be approved by the City Engineer.
    iii. All Streets shall be dedicated public streets built to Nibley City Code and standards. Private drives shall only be built to access parking courts or garages that are located directly behind each unit.
    iv. Private Drives/Alleyways provide vehicular access to parking and dwelling units but do not provide primary pedestrian access to units. Private Drives are intended to be used primarily for vehicular circulation and dwelling access and should be visually distinct from streets.
        a. Private drives shall be a minimum width of 20 ft.
        b. All private drives shall be perpendicular to the street they connect to.
        c. Driveways that access a single dwelling unit are not considered private drives or an alleyway
    v. Developments shall provide a pedestrian access to the development border at intervals at a minimum of 660 feet unless expressly prohibited by conflicting with previously developed subdivisions or land use. These access points shall be aligned with other trail systems, street right-of-way, or amenities and shall match the layout and size of the connection. A connection shall contain a minimum of eight ft (8')~~.~~ sidewalk.
    ~~v.~~vi. No dwelling units in an R-PUD shall have driveway access to any arterial roadway as listed in Nibley's Transportation Master Plan. Townhome units may face and have frontage along arterial roadways but must have rear loading garages. Public and private parks, open space or Buffering as defined within this chapter may also be along arterial roads.
4. Pedestrian circulation. R-PUD shall provide a circulation map and show the following improvements to for pedestrian circulation and safety:
        a. Pedestrian walkways that interconnect the adjacent street(s), amenities, parking areas, building entries, adjacent sites and adjacent master planned trails where applicable. Each building located along a public road must provide a sidewalk connection from the building entrance to the public sidewalk.
        b. Walkways shall be hard surfaced with concrete.

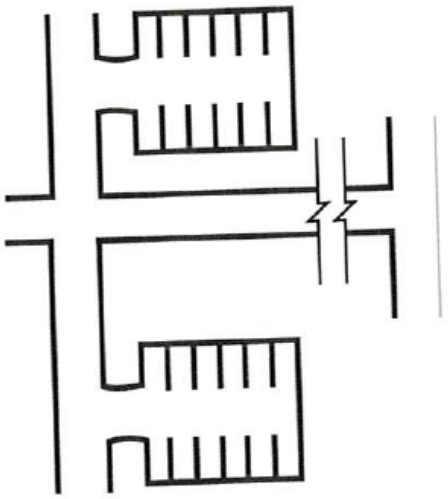
Commented [SN28]: Request a 10 degrees variance.

Commented [SN29]: What if it is another connections?

Commented [SN30]: Or asphalt if it is not replacing a sidewalk.

c. Crosswalks shall be placed where pedestrian walkways cross streets and internal roads and shall be painted or made of concrete.
d. The development shall provide connections to the Nibley City trail system. These trails must be dedicated to the City and built to Nibley City standards as listed in the Trails Master Plan and Nibley City Design Standards.

5. Parking: Each R-PUD shall provide 2 primary parking spaces for each unit. Primary parking must be contained in a garage, carports, driveway, or parking court. An R-PUD shall provide one guest parking spot for every three units. Guesting parking may be located in parking courts or on street parking maintained by the owner association.
   i. Individual parking courts shall contain no more than 20 parking spaces and shall be physically and visually separated by a landscape area a minimum of 10 feet in width from any adjacent right-of-way. The separation shall be landscaped with grass, trees, or xeriscape plants.



   ii. A parking court of any length shall consist of no more than one double-loaded parking aisle.
   iii. Parking courts shall be located in the interior of the development and located in the rear of buildings for townhome developments.

Commented [SN31]: Remove, or at least modify so that they can be built in-between buildings

iv. On-street parking shall be limited to local roads only. On-street parking shall have dedicated and marked spaces and must be approved by the City Engineer,
v. Parking Courts shall be paved and built to Nibley City parking lot standards.

6. Landscaping: All portions of the lot not improved with structures or other impervious surfaces shall be maintained with suitable landscaping of plants, trees, shrubs, grasses, or similar landscaping materials.
   i. Landscaping shall also be installed in all park strips to the same standards as other onsite landscaping. Asphalt, concrete, bricks, pavers, railroad ties, and other nonvegetative material are not allowed in the park strip area between the curb and sidewalk. Xeriscaping is permitted. The developer should plant street trees of an approved species and size along all street. Trees should be planted at intervals of every 50 feet and must meet Nibley City Standards.
   ii. Buffering: R-PUD developments shall provide buffering along Highway 89/91 or Highway 165,~~any arterial roads~~, or along the boundary of an R-PUD that is adjacent to commercial, or industrial zones~~roads~~. Buffering landscaping is not required if commercial or industrial zones are separated by a public street from the R-PUD. Buffering shall meet the standards within this ordinance.
   iii. Natural Landscape: All open space land dedicated to natural use must maintain its natural landscaping and plant life.
7. Fences:
   i. Permitted Fences: Dwelling units are allowed to install and construct fences in compliance with NCC 19.24.090. Vinyl fences are only permitted in an R-PUD for the purpose to mark property lines of individual dwelling units.
   ii. Fencing to mark the boundary of the development or amenities must meet the following standards:
      a. Opaque fences or walls must only be 4 feet tall. Any fencing above 4 feet must be at a minimum 80% transparent.
      b. Fencing and walls must be constructed out of concrete, bricks, rock, or metal bars. Chain link and vinyl fences are prohibited unless used to mark the property boundary of the dwelling unit. Wood may only be used in a rail or agricultural-type fencing. Other materials may be approved by the Planning Commission based on the longevity of the material and if the material will aesthetically enhance the property. Walls and fencing shall also comply with NCC 19.24.090 and other fencing setback requirements as contained within Nibley City Code.

Agenda Item #11

Description	Discussion and Consideration of Ordinance 19-05: Amendments to Nibley City code, Title 21: Subdivision Regulations--Minor Editing/Changes (First Reading)
Department	Planning
Presenter	Stephen Nelson, City Planner
Recommendation	Move to approve Ordinance 19-05: Amendments to Nibley City Code, Title 21: Subdivision Regulations--Minor Editing/Changes, for first reading.
Reviewed By	Mayor, City Manager, City Planner, City Attorney, Nibley City Planning Commission

Background

The City Council recommended that the proposed changes to the Subdivision Ordinance be broken into two different ordinances, one to cover minor but important changes in wording and general clean up of the ordinance, and the other to cover major policy changes. This first ordinance covers the recommended text changes which will help clarify our current subdivision ordinance.

ORDINANCE 19-05

AMENDMENTS TO NIBLEY CITY CODE, TITLE 21: SUBDIVISION REGULATIONS

WHEREAS, State law gives Nibley City authority to create regulations and ordinances governing subdivision of land within the City's boundaries; and

WHEREAS, Nibley City has subdivision regulations and desires to update them; and

WHEREAS, Nibley City wants to provide higher standards for connectivity, trails, and infrastructure design; and

WHEREAS, Nibley City wants to simplify the process while still allowing public notice and proper review.

NOW, THEREFORE, BE IT ORDAINED BY THE NIBLEY CITY COUNCIL OF NIBLEY, UTAH THAT:

1. The attached changes to Title 21: Subdivision Regulations be adopted.

2. All ordinances, resolutions, and policies of the City, or parts thereof, inconsistent herewith, are hereby repealed, but only to the extent of such inconsistency. This repealer shall not be construed as reviving any law, order, resolution, or ordinance, or part thereof.

3. Should any provision, clause, or paragraph of this ordinance or the application thereof to any person or circumstance be declared by a court of competent jurisdiction to be invalid, in whole or in part, such invalidity shall not affect the other provisions or applications of this ordinance or the Nibley City Municipal Code to which these amendments apply. The valid part of any provision, clause, or paragraph of this ordinance shall be given independence from the invalid provisions or applications, and to this end the parts, sections, and subsections of this ordinance, together with the regulations contained therein, are hereby declared to be severable.

4. This ordinance shall become effective upon posting as required by law.

PASSED BY THE NIBLEY CITY COUNCIL THIS ____ DAY OF _____, 2019.

ATTEST:

_____ _____

David Zook, City Recorder Shaun Dustin, Mayor

Agenda Item #12

Description	Discussion and Consideration of Ordinance 19-06: Amendments to Nibley City code, Title 21: Subdivision Regulations--Substantive Policy Changes (First Reading)
Department	Planning
Presenter	Stephen Nelson, City Planner
Recommendation	Move to approve Ordinance 19-05: Amendments to Nibley City Code, Title 21: Subdivision Regulations--Substantive Policy Changes, for first reading.
Reviewed By	Mayor, City Manager, City Planner, City Attorney, Nibley City Planning Commission

Background

The City Council recommended that the proposed changes to the Subdivision Ordinance be broken into two different ordinances, one to cover minor but important changes in wording and general clean up of the ordinance, and the other to cover major policy changes. This second ordinance covers the recommended policy changes

Process for Approval
The proposed ordinance changes the approval process for standard subdivisions.

Section 21. 06.060
Land Use Authority shows these changes by assigning different types of subdivisions different approval authority. The Approval Authority would be as follows:

A. The Land Use Authority shall be established according to the table below for Preliminary Plats, Final Plats, and Development Agreements.

Subdivision Type	***Approval Authority***	***Public Hearing Required***

Standard Subdivision	*Planning Commission*	*No*
Minor Subdivision	*Planning Commission*	*No*
Rural Preservation Subdivision	*City Council*	*Yes*
Cluster	*City Council*	*Yes*
PUDs and Subdivisions in Overlay Zones	*City Council*	*Yes*

This table outlines who would have the ability to approve a subdivision and what subdivision would require a public hearing. Below is more detail about the proposed approval process.

Phasing: 21.02.080

The proposed ordinance contains changes for how developments can be phased. It extends the phasing deadline from one year to ten. The reasons are to allow a large development to be able to effectively phase a project, which will hopefully eliminate most remainder parcels and allow large tracts of land to be developed by one developer.

Public Notice: 21.06.050
This section outlines the process for public notices and public hearings for subdivisions. All subdivisions, even if they are not required to hold a public hearing, must still give notice to adjacent property owners to allow them to submit any findings to Nibley City and also to allow for transparency. This sections also outlines that public hearing are for preliminary plats only.

Groundwater Report: 21.06.080
The Groundwater Report requirement has been altered to allow a developer to not do a groundwater report if they state on the plat, "that no finished floor shall be built at an elevation lower than six inches (6") above finished curb or centerline of the street, whichever is higher unless an individual lot owner is able to provide a stamped report meeting the qualification as listed within NCC 21.06.070 (B) for their lot. This report must be reviewed and approved by the City Engineer."

Amendment to a Plat: 21.08.030
The proposed ordinance now references state code if a developer wants to amend a plat.

Water Supply: 21.12.020
There are only a couple of small word changes, but they are important because the City cannot sell or lease its water shares or rights but may sell or lease the water itself that is controlled by those rights and/or shares.

Streets: 21.12.050
Nibley City recently updated our Transportation Master Plan and is currently updating our Design Standards. The Master Plan updated several street cross sections with several updates and suggestions. Sections C (3-6) are in the current code but have been moved from another section.

Connectivity, Blocks, and Trail Standards: 21.12.060
There have been several major changes and additions within this section of code. The first change is to provide a definition of Block Length and limiting blocks to 1,600 ft. This is aimed at providing breaks in streets and to increase connectivity throughout neighborhoods.
The Cul-de-sac standards have also been moved into this section. This section requires a trail to leave the cul-de-sac and to link to the nearest ROW. The trail pavement has increased to the width of 8', instead of 5' to comply with our Trails Master Plan and that fencing is required to be installed next to the trail by the developer.

The next big change within this section of code is the requirement of access roads. This code change highlights the need for the developer to provide two functioning accesses to a development with 30 or more units. The code also clarifies what an access road outside of the development should look like. An access road outside of development must be a minimum of 22'

wide asphalt with a 5’ sidewalk. These roads should be built to meet design standards of the future full road and have sufficient stormwater.

The new proposed code also addresses Traffic Calming measure that are suggested in the Transportation Master Plan. In developments that contain arterial or collector roadways, a developer must provide some form of traffic calming at each entrance and exit of the development.

The last major change in this section is Trails, Bicycles, and Pedestrian Connectivity standards. We currently do not have any trail standards listed within Nibley City’s code, except for those that must leave the back of a cul-de-sac. This states that trails must be added to all subdivision developments according to our Trail Master Plan and Transportation Master Plan. It also requires that there be a trail at an interval of every 660 ft for blocks longer than 660 ft.

Definitions: 21.14.020

There are a couple of changes within this section. One of the main ones is the change of the “bond” to “Improvement Completion Assurance.” This change is to represent how it is defined in state law and to apply more broadly to other forms of financial assurance. Other changes are mostly geared towards clarification.

Agenda Item #13

Description	Discussion and Consideration of Ordinance 19-08: An Ordinance Providing for the Compensation of Elected and Statutory Officers of Nibley City (First Reading)
Department	City Council
Presenter	David Zook, City Manager
Recommendation	Move to approve Ordinance 19-08: An Ordinance Providing for the Compensation of Elected and Statutory Officers of Nibley City, for first reading.
Reviewed By	Mayor, City Manager, City Treasurer

Background

In 2015, the City Council established a policy of adjusting elected official stipends annually at the same rate as salaries are adjusted for other employees. A 2% cost of living adjustment (COLA) is being proposed in this year's budget for employees, therefore elected official compensation is proposed to be increased by an equal amount.

The compensation of the elected and statutory officers is proposed as follows:

Office:	**Proposed Salary:**	**Present Salary:**	**Increase:**
Mayor	$828/month	$812/month	$16/month
Councilmember	$330/month	$324/month	$6/month
Treasurer	$43,132-63,726/year	$42,283-62,472/year	$1,254/yea

ORDINANCE 19-8

AN ORDINANCE PROVIDING FOR THE COMPENSATION OF ELECTED AND STATUTORY OFFICERS OF NIBLEY CITY

WHEREAS, elected and statutory officers are required to devote a significant amount of time and talent to the effective administration of Nibley City; and

WHEREAS, elected and statutory officers should be fairly compensated for their time and expenses; and

WHEREAS, the Nibley City Council established a policy in 2015 of annually adjusting City Council Member compensation commensurate with the cost of living adjustment provided to other City employees; and

WHEREAS, a COLA of 2% is proposed this year for city employees.

NOW, THEREFORE, BE IT ORDAINED BY THE NIBLEY CITY COUNCIL OF NIBLEY, UTAH THAT:

1. All previous salary or compensation ordinances regarding the elected and statutory officers below are hereby repealed.

2. The compensation of the elected and statutory officers shall be as follows:

Office:	**Present Salary:**	**Proposed Salary:**	**Increase:**
Mayor	$812/month	$828/month	$16/month
Councilmember	$324/month	$330/month	$6/month
Treasurer	$42,283-$62,472/yr	$43,132-$63,726/yr	$845-1,254/year

3. Elected and statutory officers shall be paid on the same schedule as other municipal employees.

4. The compensation listed above is not inclusive of per diem, mileage, phone allowance or other expenses, which may be incurred in the course of conducting Nibley City business.

5. This ordinance shall become effective July 1, 2019.

PASSED BY THE NIBLEY CITY COUNCIL THIS _____ DAY OF _____ , 2019.

_____
Shaun Dustin, Mayor

ATTEST:_____
David Zook, City Recorder

Agenda Item #14

Description	Discussion and Consideration of Resolution 19-09: A Resolution regulating the use of fireworks within Nibley City Limits (First Reading)
Department	Fire Department
Presenter	David Zook, City Planner
Recommendation	Move to approve Resolution 19-10: A Resolution regulating the use of fireworks within Nibley City Limits, and waive the second reading.
Reviewed By	Mayor, City Manager, City Planner, Hyrum Fire Chief, Cache County Fire Chief

Background

Dry summertime conditions increase fire hazards and necessitate special fire hazard mitigation measures. Utah Code Annotated, Sections 15A-5-202.5 and 53-7-225 provide that municipalities may regulate and prevent the discharge of fireworks in certain areas with hazardous environmental conditions. New statutory requirements require the County to issue a map by June 1 of each year showing the areas where fireworks are prohibited. The recommendation from staff and Mayor Dustin is to prohibit fireworks east of SR 165/Main Street in Nibley as was done last year.

RESOLUTION 19-09

A RESOLUTION REGULATING THE USE OF FIREWORKS WITHIN NIBLEY CITY

WHEREAS, dry summertime conditions increase fire hazards and necessitate special fire hazard mitigation measures; and

WHEREAS, Utah Code Annotated, Sections 15A-5-202.5 and 53-7-225 provide that municipalities may regulate and prevent the discharge of fireworks in certain areas with hazardous environmental conditions; and

WHEREAS, the Nibley City Council finds that it is in the interest of the health, safety and welfare of the inhabitants of Nibley City to prohibit the use of fireworks in areas that are more prone to dangerous and deadly wildfires.

NOW, THEREFORE, BE IT RESOLVED, by the Nibley City Council that use of fireworks east of SR 165/Main Street in Nibley is prohibited until further notice.

This resolution shall take effect immediately upon passage.

Dated this _____ day of _____, 2019.

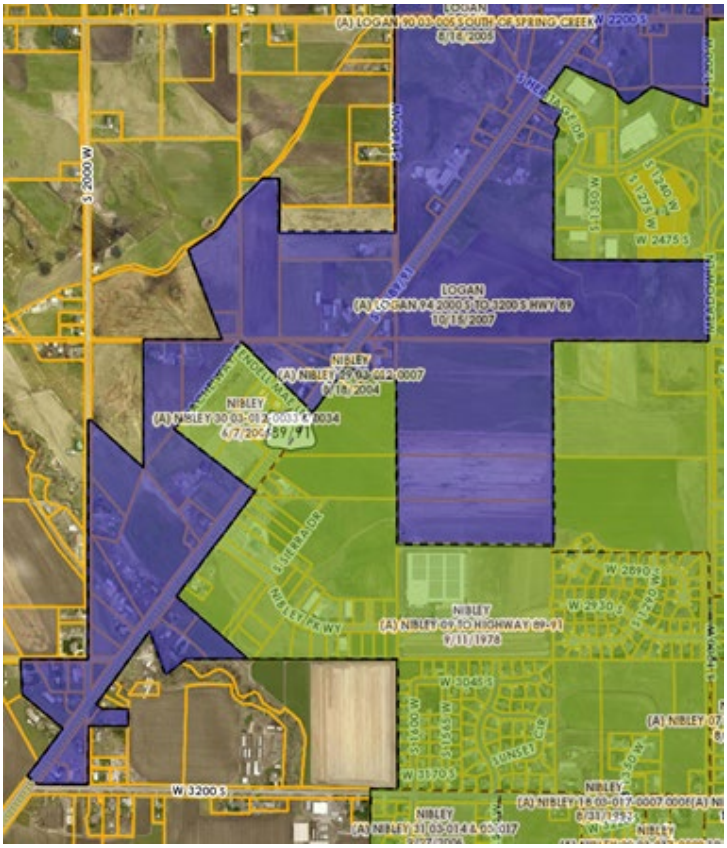
_____
Shaun Dustin, Mayor

ATTEST: _____
David Zook City Recorder

Agenda Item #15

Description	Discussion and consideration of Ordinance 19-03: Highway 89/91 Setbacks and Commercial Node Definition
Department	Planning
Presenter	Stephen Nelson, City Planner
Recommendation	Move to approve Ordinance 19-03: Highway 89/91 Setbacks and Commercial Node Definition, for first reading.
Reviewed By	Mayor, City Manager, City Planner, Nibley City Planning Commission, City Attorney

Background



Nibley City has been in discussions with Logan City about a boundary line adjustment along US 89/91. Nibley City and Logan City have pieces of territory that extend across the highway as shown (Nibley City is in green, and Logan City is in blue). One of Logan's concerns about the boundary realignment is the loss of control over how development might occur along the primary gateway into Logan City, which development could affect viewsheds and traffic flow. As such, they have asked Nibley City to consider adopting a code similar to Logan City's Gateway Overlay standards. Logan's recently-adopted standards require a setback along US Route 89/91 of 150 feet and 75 feet at commercial nodes, in the section south of 2200 South. In the section of US 89/91 north of 2200 South, they require a setback of 100 feet.

Proposed changes to Nibley City's setback code are as follows:

19.22.020 Setbacks along Highway 89/91

A. The setback for any structure from Highway 89/91 shall be 100 ft. Parking lots, roads and private drives that run parallel to Highway 89/91 shall be setback a minimum of 50' from Highway 89/91.

B. The Setback areas shall be landscaped. Setback areas may contain landscaping, trails, stormwater facilities, signed allowed by NCC 19.24.150 and transparent fencing as allowed in NCC 19.24.090

C. Commercial Nodes structures shall have a 30' setback from Highway 89/91.

19.04.010 Definitions

Commercial Node: The concentration of commercial development at the intersections of arterials roads. A Commercial node may extend 660 feet in every direction from the intersections.

Logan City has reviewed and sent comments about the proposal and has stated that they would like to see 150' ft. setback and 75' setbacks in commercial nodes. These setbacks would include parking lots, signage, displays and other uses except for landscaping. These setbacks are on the larger end of what Nibley City and Logan City originally discussed.
Some of Logan City's concerns are about uses adjacent to Highway 89/91. Nibley City current zoning map and Future Land Use show that no industrial use is planned to run adjacent to Highway 89/91.

Public Feedback,
Many of the property owners along the Highway have expressed concern about the depth of these setbacks, if they were to be adopted at 100 feet. Their worry is that the City is making large areas of their property undevelopable. They have threatened legal action if the City were to adopt these standards as proposed. The Nibley City Attorney has reviewed concerns from the property owners and has stated that there is case law that establishes a city's right to enact these types of setbacks. However, those cases involved smaller setbacks than these.

ORDINANCE 19-04

AN ORDINANCE HIGHWAY 89/91 SETBACKS AND COMMERCIAL NODE DEFINITION

WHEREAS, Highway 89/91 is one of the primary corridors used by residents of Nibley City and Cache County; and

WHEREAS, Highway 89/91 is will likely expand in the future, as will development along the highway; and

WHEREAS, Nibley City wishes to collaborate with other local governments and political agencies on to establish standards for development along the corridor; and

WHEREAS, Nibley City desires to help preserve the natural beauty of Cache Valley and it natural and rural character and history.

NOW, THEREFORE, BE IT ORDAINED BY THE NIBLEY CITY COUNCIL OF NIBLEY, UTAH THAT:

1. The attached Highway 89/91 Setbacks and Commercial Node Definition Ordinance is adopted.

2. All ordinances, resolutions, and policies of the City, or parts thereof, inconsistent herewith, are hereby repealed, but only to the extent of such inconsistency. This repealer shall not be construed as reviving any law, order, resolution, or ordinance, or part thereof.

3. Should any provision, clause, or paragraph of this ordinance or the application thereof to any person or circumstance be declared by a court of competent jurisdiction to be invalid, in whole or in part, such invalidity shall not affect the other provisions or applications of this ordinance or the Nibley City Municipal Code to which these amendments apply. The valid part of any provision, clause, or paragraph of this ordinance shall be given independence from the invalid provisions or applications, and to this end the parts, sections, and subsections of this ordinance, together with the regulations contained therein, are hereby declared to be severable.

4. This ordinance shall become effective upon posting as required by law.

PASSED BY THE NIBLEY CITY COUNCIL THIS ____ DAY OF _____, 2019.

ATTEST:

_____ _____

David Zook, City Recorder Shaun Dustin, Mayor

Proposed changes to Nibley City's setback code are as follows:

19.22.020 Setbacks along Highway 89/91

A. The setback for any structure from Highway 89/91 shall be 100 ft. Parking lots, roads and private drives that run parallel to Highway 89/91 shall be setback a minimum of 50' from Highway 89/91.

B. The Setback areas shall be landscaped. Setback areas may contain landscaping, trails, stormwater facilities, signage allowed by NCC 19.24.150 and transparent fencing as allowed in NCC 19.24.090

C. Structures, parking lots, and other uses with in a Commercial Node shall have a 30' setback from Highway 89/91.

19.04.010 Definitions

Commercial Node: The concentration of commercial development at the intersections of arterials roads. A Commercial node may extend 660 feet in every direction from the intersections.

Commented [SN1]: Logan City's proposed ordinance is 150 ft. with only landscaping allowed and monument signs.

Commented [SN2]: Logan Defines that Commercial nodes are only at 2600 S, and 3200 S. Our definition would allow for a Commercial node at Heritage Dr., 2600 S, Nibley Park Way, and 3200 S.

Commented [SN3]: Logan City's proposed ordinance is 75.

Agenda Item #16

Description	Concept review with Visionary Homes of a Rural Preservation Subdivision, located south of 3400 south and between 600 West and 450 West
Department	Planning
Presenter	Stephen Nelson, City Planner
Recommendation	Visionary Homes will present a concept plan for a proposed Rural Preservation subdivision that would be south of 3400 south, between 600 and 450 west. The Council should hear the proposal and provide feedback.
Reviewed By	City Planner, City Engineer and Public Work Director

Background

Visionary Homes is considering applying to develop a Rural Preservation Subdivision in the area between 640 W and 450 W south of 3400 S. They have done a preliminary review with staff and have asked to do a review with the City Council. The main items they wanted to review with City Council is the placement of open space and roadways within the development.

Open Space

Nibley City's new Rural Preservation Subdivision has more strict requirements for open space. Open Space is defined as follows:

> 21.10.020 B
> OPEN SPACE LAND: Any parcel or area of land dedicated under this section as indicated on a Rural Preservation Subdivision Plat for the access and/or visual enjoyment of the public. Open Space Land must meet the standards and requirements of this section. Open Space Land may not be contained in the privately-owned parcel except as specifically allowed in this ordinance. Open Space Land must have 25% of its border adjacent to public access right-of-way, easement, or City park or contain a trail open to the public which traverses or runs adjacent to the Open Space Land. Open Space Land area shall not be included in setback areas calculations for principal or accessory uses.

Open Space also needs to meet three of the following standards:

21.10.020

I. *Open Space Land Design Standards: Open Space Land shall be located and designed within the Rural Preservation Subdivision to add to the visual amenities of neighborhoods and the surrounding area by maximizing the visibility of Open Space Land. Designated Open Space Land within a Rural Preservation Subdivision shall also comply as defined in this section, permitted uses as listed in this section, and meet three (3) or more of the following standards:*

1. Significant Areas and Natural Landscape: Open Space Land shall include the most unique and sensitive resources and locally significant features of the property within the subdivision. Specifically, meadows, waterways and wetlands as defined in this Ordinance, and tree stands and contain a minimum of 0.5 acres. Other uses include berms, wildlife corridors and/or habitat and must extend a minimum of 15' on each side of the feature. This Open Space Land may also contain historic buildings and/or sites, archeological sites, and cultural features. The maintenance plan shall outline how the property will be preserved and maintained. The maintenance plan must specify what type of feature(s) that is being preserved and how the property will be maintained.

2. Contiguous Land: Open Space Land within a Rural Conservation Subdivision shall be contiguous within the subdivision, or to other Open Space Land in adjacent subdivisions or developments to provide for large and integrated Open Space Land areas within the City.

3. Agricultural Land: Privately held Open Space Land that is used for agricultural purposes as defined in this Ordinance and is 0.5 acre or greater in size.

4. Buffering: Open Space Land shall be designed to provide buffers and to protect scenic views as seen from existing public rights-of-way and from public parks or trails. Buffering area along public rights-of-way or street must be at least thirty (30') feet wide. Buffering must be landscaped, at the sole cost of the developer and shall provide for every hundred (100) linear feet of buffer, four (4) deciduous trees, five (5) evergreen trees, and fifteen (15) shrubs. Tree and shrub species must be approved by the City's arborist or the City's Park Director. Trees and shrubs shall be planted within thirty (30) feet of the right-of-way or public park. Irrigation shall be provided by the developer and shall be designed and installed to Nibley City Standards for City parks current at the time of approval of Final Plat. Open Space buffer areas shall be under single ownership.
5. Pedestrian Access: Developer shall provide pedestrian access to Open Space Land which is open to public or owners' association member use. Access methods can be a trail, park, recreation space, or neighborhood gathering space.

6. Recreation Space: Open Space Land maybe designated as recreation space or park space, including maintained grass, trails, picnic areas, playgrounds, sports fields or other recreation and park amenities. These recreation spaces are conditional upon the City Council's approval, and amenities must be approved by the City Council before final approval of the maintenance plan can be given. Publicly and owners' association owned open spaces shall be fully developed and operational in conjunction with each phase of the subdivision as a percentage of the total developed value of the subdivision (for example, if 25% of the dollar value of the development is being

constructed, then a minimum of 25% of the dollar value of the built-out Recreation Space must be developed). The determination of value, construction sequencing, and acceptance criteria shall be specified in the development agreement; until improvements are accepted by the City for the attendant phase, no permits shall be issued for subsequent phases.

7. Stormwater Basin: These facilities must be built to Nibley City Design Standards, must contain a tree for every 300 square feet and planted and clustered around the perimeter basin area; an irrigation system must be installed, and be planted with grass, natural vegetation and shrubs. The stormwater basin can be a local or regional basin and must be owned and maintained by Nibley City.

One of the main questions is about the open space along the railroad. The applicant has calculated that a percentage of board along the railroad meet the adjacent to "public access right-of-way, easement, or City park or contain a trail open to the public which traverses or runs adjacent to the Open Space Land." The reasoning would be because the the open space would have a clear view from 640 W and would help provide buffering space along the railroad.

The applicant is looking for direction on code interpretation and feedback from the Council before they create their preliminary plat.

Roadways

Their main question about roadways is the map local road on our Street Master Plan. 600 W is shown to continue south toward 3575 S. The proposed plan by Visionary is to continue the roadway South, and then have one road connect on the southern part of 600 W and split to create two connections to 450 W, one about a half block north, and the other about a half blocks south of 3575 S. Nibley City's subdivision code states the following about roadways:

21.12.050 Streets

A. Street Design: Subdividers shall locate streets within the subdivision so that streets will connect with existing streets. Streets shall be located and designed so that the adjoining land shall not be diminished in value. If the adjoining land is zoned for residential use, streets shall be located so that the adjacent land may be efficiently subdivided.

Half streets (completed only to centerline) are allowed only when the City engineer has reviewed the proposed half street design and can attest that public safety issues have been satisfied. A minimum of twenty feet (20') of asphalt shall be required on all half streets.

B. Streets To Conform To Transportation Master Plan: Arterial and collector streets shall conform to the Transportation Master plan. Whenever a subdivision is in an area for which a major or collector street plan has not been adopted, major or collector streets shall be provided as determined by staff and the City engineer.

Section B requires that collectors and arterial roadways conform to the Transportation Master Plan, while local roads, like 600 W, need to placed in a logical manner. Visionary's propose plan does have some advantages by not creating any cul-de-saqs, shorting the the block lengths from the North and South along 450 W, and being able to provide a park in the back of the future homes and along a right-of-way.

Allowed Number of Lots . Palley / Johnson / Murphy Properties, Nibley, Utah . Ironwood Homes . OPTION 2

Total Area	32.34 Acres
Total Area dedicated Rights of Way 4,150 l.f. at 60 ft. wide	5.71 Acres
Net Developable Land	26.63 Acres
Area of Proposed Open Space	9.68 Acres
Open Space Ratio	0.36
Base Number of Lots	53.26
Incentive Multiplier	1.3
Total Allowed Lots	69.23

Site Summary

Units:	69 Lots
Gross Density:	2.1 Units/Acre
Average Lot Size	10,700 square feet
Minimum Lot Size:	9,000 square feet

Perimeter of open space:	8,150 linear feet	
Open space adjacent to street:	2,360 linear feet	28.9 %

North 1" = 100 Feet

100 50 0 100 200

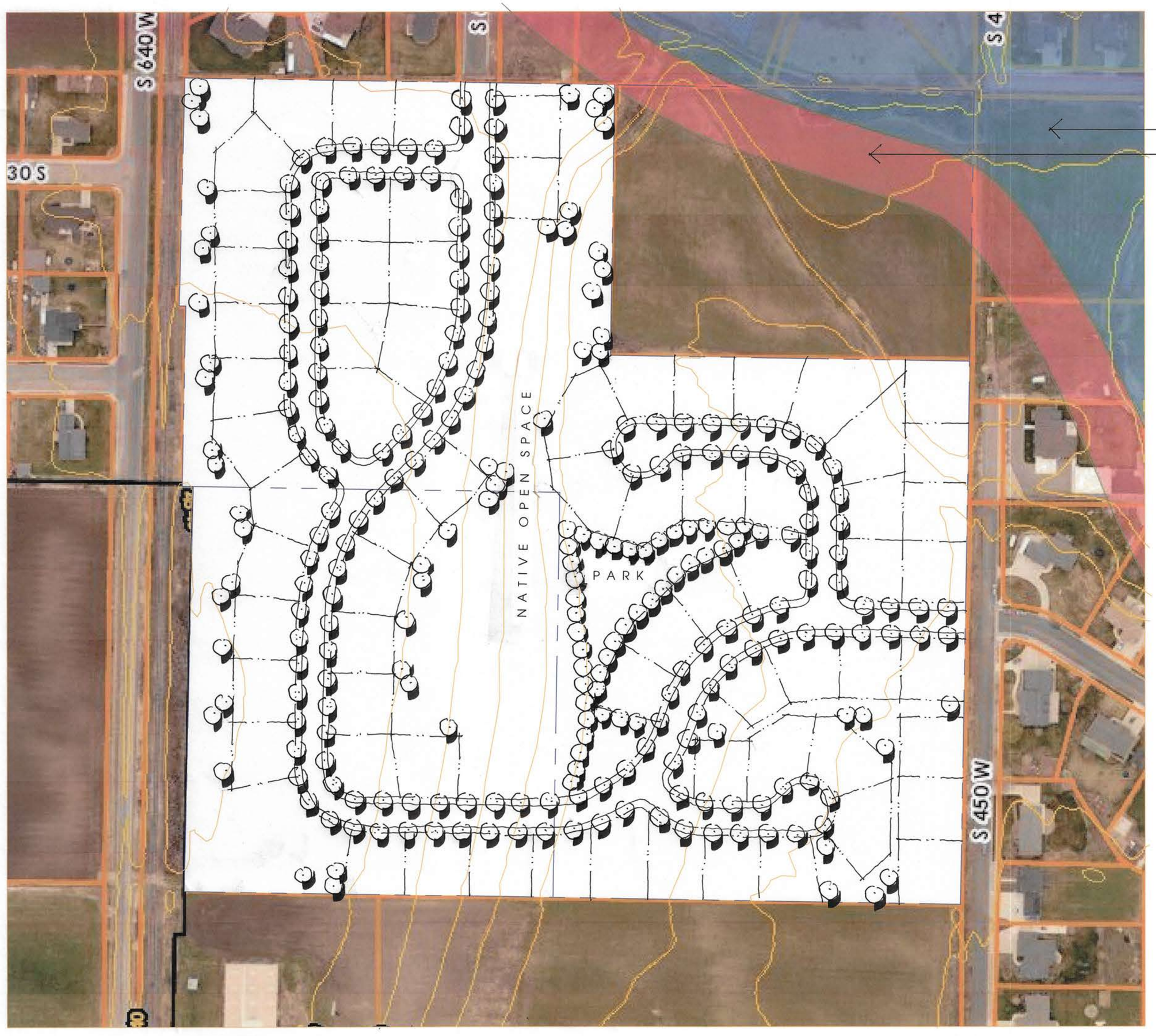
16 MAY 2019
Concept Plan: OPTION 2

NIBLEY PROPERTY

Palley / Johnson / Murphy Properties . Nibley, Utah

Ironwood Construction . 50 East 2500 North . North Logan, Utah

R. MICHAEL KELLY
CONSULTANTS
LAND PLANNING · LANDSCAPE ARCHITECTURE
P.O. Box 469, Millville, UT 84326 435.753.2955



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16 MAY 2019
Concept Plan: OPTION 2

NIBLEY PROPERTY

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