

## STAGE 3 – PRELIMINARY CONSTRUCTION PLAN REVIEW SUMMARY

### [Chapter 3 Link](#)

The Preliminary Construction Plan Review encompasses the submittal and review of utility, street, grading, drainage, stormwater, and erosion control plans and specifications. The plans and specifications are subject to redlined comments and requested revisions to the submitted plans. Failure to address all redlined comments could require the plans to be resubmitted, which results in longer review turnaround time. For more complex or detailed projects (subdivisions, TEDs, condominium developments, etc.), all infrastructure (surface, water, sewer, stormwater) must be submitted at same time, **in one submittal** (rather than staggered) to ensure a holistic comprehensive review. Common components of preliminary design include the following:

- Boulevard and landscaping plan
- Geotechnical
- Grading, drainage, and erosion control
- Horizontal and vertical alignment
- Lighting plan
- Non-motorized plan (bike and pedestrian, bike parking)
- Preliminary plat
- Right-of-way
- Signing and pavement markings
- Stormwater Drainage Report
- Traffic operations (Traffic plan)
- Utility plan

The transmittal cover sheet should highlight the request for the Water and/or Sewer Availability Notice (if applicable). The Utility Service Review Committee (USRC) approval, if applicable, must be included in submittal package that documents date of approval and any required conditions.

City Council approves subdivisions with conditions, zoning compliance permit with conditions, and annexations with conditions. As such, if a project is a subdivision or TED development, plans will be in conformance with these conditions and any preliminary plat infrastructure elements. All lots must have an address assigned by GIS and include lot lines and block numbers prior to Stage 4.

**Utility plans** must be reviewed and eventually approved if excavation is required for any mainline, primary, secondary, or cable construction within ROW and/or public easement. All plans must identify **all easements** as either public or private. Any public or private easement for individual services must be shown on plans. Book, Page Number, or Plat COS must be identified for any existing recorded easement(s).

The Stage 3 packet will be internally distributed to applicable City staff for review. This submittal represents a 90% complete design package and shall include all plan sheets that will be included in Stage 4 submittal. The City's review and subsequent redlines should result in an approved Stage 3 plan set, which should shorten the Stage 4 Release for Construction review. If Stage 3 is **approved**:

1. Redlines will be returned to the developer's representative,
2. Preliminary Construction Approval Notice will be sent under separate cover,

3. If requested, Sewer and/or Water Availability Notice will be sent under separate cover, and
4. Project may proceed to Stage 4, Release for Construction and Issuance of Building Permit

### **DENIAL of STAGE 3**

Incomplete submittals will suspend the review process; they will be returned for resubmittal and placed at the back of the queue. If a resubmittal is required, all redlines must either be corrected or include a written response as to justification of excluded redline comment. Lack of project number or correct project name can delay processing.



### PRELIMINARY CONSTRUCTION PLAN REVIEW CHECKLIST STAGE 3

**This checklist is a guide to meet Missoula City Public Works Standard Specifications Manual, specific regulations Titles 12 & 17 (Articles 3, 5, and 9) and other minimum requirements that will enable City Staff to adequately review and approve submitted documents required for this stage.**

*(This checklist is not all inclusive, other information may also be required)*

Project Name: \_\_\_\_\_

City Project # (**MUST** be provided): \_\_\_\_\_

Developer's Representative Name/Contact Info: \_\_\_\_\_

Developer/Owner Name/Email/Contact Info: \_\_\_\_\_

Date Submitted and version (year) of Manual: \_\_\_\_\_

Plans Submitted ("x" as applicable): \_\_\_\_\_ Surface \_\_\_\_\_ Sewer \_\_\_\_\_ Water \_\_\_\_\_ Storm

Other (specify) \_\_\_\_\_

All submitted construction drawings shall include and reference the current version or latest revision of any and all applicable City of Missoula Standard Drawings. Prior to submittal, review the City of Missoula website for current version of standard drawings. Standard Drawings may be revised at the discretion of City Engineering, usually during the latter part of a calendar year.

STAGE NUMBER	STAGE PROCESS
1	Project/Development Initiation
2	Conceptual Design Review
3	Preliminary Construction Plan Review
4	Release for Construction (RFC) Plan Review
5	Utility Inspection & Testing
6	Final Inspection & Acceptance
7	Warranty Inspection

## REQUIRED SUBMITTAL DOCUMENTATION

### PRELIMINARY CONSTRUCTION PLAN DOCUMENTATION

***Do not leave boxes blank; ALL MUST BE EITHER CHECKED (X or ✓) or N/A as appropriate***

All documents shall be submitted as a single bookmarked pdf, using the formatting and file-naming conventions described below. Any submittals that have not been properly organized will be returned for re-submittal.

#### ***Stage 3 – Preliminary Construction Plans***

- Completed Stage 3 Checklist signed by developer’s representative (this document)
- Preliminary Construction Plans; if submitting plans for surface and/or multiple utilities, include the following:
  - Boulevard Landscaping Plan – Location ~~and Type~~, Class, and Species of Trees
  - Lighting Plan
  - Signing/Striping Plan
  - Non-Motorized Plan (Bike/Pedestrian, Bike Parking)
- Draft specifications
- Design Report – Water and sewer mains must be accompanied by a design report that complies with the requirements in Chapter 4 and 5 of the Missoula City Public Works Standards and Specifications Manual.
- Letter from Fire Marshall approving hydrant locations and stating fire flow requirements.
- MT DEQ Deviation Requests, as necessary
- Stormwater Site Evaluation Form – Projects classified as Medium and High Priority shall submit a stormwater drainage report that complies with the requirements in Chapter 6 of the Missoula City Public Works Standards and Specifications Manual
- Erosion Control Site Plan per the City’s Erosion Control Site Plan Review Checklist
- City/County approved conditions (subdivision, townhome exemption development, zoning compliance permit, annexation, etc.)
- Preliminary plat for addressing purposes (subdivision, TED, condo/apartment developments, etc.)
- Overall utility plan that includes water, sewer, storm and dry utilities (gas, power, fiber optic cable, telephone, etc.) all on the same plan. This information shall also be shown on all infrastructure plans.
- Include utility service location information on all infrastructure plans (e.g., water, sewer, stormwater, and dry services such as gas, power, telephone, fiber optic cable, etc.)
- USRC approval application – **REQUIRED** if requesting **Sewer/Water Availability Notice**:
  - Legal description of site (Section, Township, Range)
  - Water/Sewer main connecting to
  - Water Design Report
  - Sewer Design Report
- Other, list \_\_\_\_\_

## **DIGITAL / ELECTRONIC GIS FILE REQUIREMENTS**

### **File Formats Include:**

- One (1) bookmarked Adobe Acrobat®\*.PDF format CD containing ALL RFC Plans

### **AND One (1) copy of:**

- Autodesk® AutoCAD™ \*.DWG format
- Or ESRI® ArcMap™-compatible format file

### **File Naming Convention**

File names should contain the prefix associated with the utility type followed by the suffix containing the city file number. **Utility Prefix + Project Number = Filename**

1. Lot / Parcel Layout / Easements and Streets: *“surface-city file number”*
2. Sanitary Sewer: *“ss-2020-036”*
3. Water Utilities: *“w-2020-036”*
4. Storm Drainage: *“sw-2020-036”* or *“sd-2020-036”*
5. Combined Overview: *“combined-2020-036”*

### **Deliverables**

All digital files shall be compressed together in .zip or .rar format using the city project file number followed by the stage number (ex. 2020-036\_Stage3), and individual files using the above naming convention.

### **Coordinate System**

AutoCAD® and ArcMap™ files shall be georeferenced and projected. Horizontal (X/Y):

- NAD 1983 (2011) State Plane Montana FIPS 2500 (Intl Feet)
  - Digital files are not required to be projected vertically. However, inverts and other vertical information conveyed must be reported using NAVD88 (ft.).
- Submission must use and note the geoid model used. Valid models for our areas include:
  - GEOID18
  - GEOID12A
  - GEOID12B
- Un-projected files or files with incorrectly applied projections will be rejected.
- Note: The City requires that digital data be submitted in state plane grid.

All submissions must be referenced to the National Spatial Reference System (NSRS) and comply with Montana Code Annotated, Title 70, Chapter 22, Part 2

### **1) Lot/Parcel Layout/Easements and Streets**

- Lot/Parcel Lines
- Lot Numbers
- Street Centerlines (New & Existing)
- Street Names (New & Existing)
- Sidewalks
- Curbs
- All easements related to the project, new and existing

Book and page number will be requested in Stage 4

# SURFACE INFRASTRUCTURE

**Do not leave boxes blank; ALL MUST BE EITHER CHECKED (X or ✓) or N/A as appropriate**

## TOPOGRAPHY/GEOTECHNICAL – Hillside/Site Grading average developed area slope 5% or more

- Rock/outcrop issues
- Adjacent property topography (grade match)
- Grading plan (existing/proposed, pre-graded lots, cuts/fills, access issues)
- Cut and fills (ROW work must be located within ROW) or easements
- Disturbed slopes designed at 2:1 (50%) or less
- Ground water issues
- Slope stability/hazards (unstable slopes, etc.)
- Retaining walls
- Weed control/topsoil/re-vegetation plan
- Existing and proposed surface drainage/stormwater
- Other

**Comments**

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## BLOCKS

- Conformance to City Subdivision Regulations, Article 3, or the *Missoula City Public Works Standards and Specifications Manual* if project is not subdivision related
- Length maximum uninterrupted block(s)
- Configuration; appropriate access to all lots – see also “Driveways” – Access/Approaches
- Common area(s); access, maintenance agreements, etc.
- No access strips (along collector street or above, at crosswalks, signals, etc.)
- Other

**Comments**

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## LOTS

- Configuration: buildable area, slope, pre-grading
- Access: slope, distance from intersections, no access designation
- Sight obstruction & visibility triangles: NO structures permitted in visibility triangles
- Stormwater retained onsite, each lot/parcel or directed through easements, via development designed stormwater management plan
- Other

**Comments**

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**EASEMENTS, AGREEMENTS FOR MAINTENANCE, HOA, PRIVATE ROADS, etc.**

No permanent structures or portions of structures, eaves, etc., allowed within easements.

\_\_\_\_\_ Existing easement(s)

\_\_\_\_\_ Proposed easement(s)

\_\_\_\_\_ Public/Private utility easement(s) (location, width – includes: overhead and/or buried sanitary sewer, stormwater, water, electric, natural/ propane/high-pressure gas, petroleum, telephone, cable, and other utilities)

➔ Main(s) 20 feet minimum easement width

➔ Service(s) 15 feet minimum easement width

\_\_\_\_\_ Public/Private common service easement (for stub-outs)

\_\_\_\_\_ Public/Private drainage easement(s) (collection, retention, and detention ponds)

\_\_\_\_\_ Public/Private foundation drainage easement(s) (width, location)

\_\_\_\_\_ Public/Private access easement(s) (width, location)

\_\_\_\_\_ Public/Private NO access easement(s) (width, location)

\_\_\_\_\_ Public/Private non-motorized access easement(s) (width, location [trails])

\_\_\_\_\_ Public sidewalk easement(s) (width, location)

\_\_\_\_\_ Construction easement(s) (width, location)

\_\_\_\_\_ Maintenance easement(s) (width, location)

\_\_\_\_\_ Irrigation/ditch easement(s) (width, location)

\_\_\_\_\_ Conservation easement(s) (width, location)

\_\_\_\_\_ Off-site/adjacent properties easement(s) (width, location)

\_\_\_\_\_ Other \_\_\_\_\_

\_\_\_\_\_ Other

**Comments**

**STREETS & ALLEYS – Paving (including Private Roads, Short Courts, and Cul-de-sacs)**

Refer to Article 3 of the City Subdivision Regulations or the Missoula City Public Works Standards and Specifications for other projects

\_\_\_\_\_ Public Street/roadway

\_\_\_\_\_ Private Street/roadway/drive – shall be curbed

\_\_\_\_\_ Public/Private Street/roadway names – county verified and / or approved

\_\_\_\_\_ Cul-de-sac (length, turn-around)

\_\_\_\_\_ Short court (length, number of units served)

\_\_\_\_\_ Allow Overflow parking (length, width, number of spaces) Maintenance/Encroachment

\_\_\_\_\_ Street/roadway/driveway layout/design cross-section – private/public short courts

\_\_\_\_\_ Width/construction cross-section specifications and design (pavement thickness, base thickness, mix design, testing, type and location of pedestrian facilities/ sidewalks)

\_\_\_\_\_ Grades (preliminary grading plan, profiles, include vertical curve data, intersection grading is ADA compliant)

\_\_\_\_\_ Provide “non-compressed” profile drawings

Boulevard Landscaping Plan

**TRAFFIC SIGNALS – TRAFFIC CONTROL DEVICES**

- \_\_\_\_\_ All sidewalks and ADA ramps to have both running slope and cross slope labeled
- \_\_\_\_\_ Cuts and fills: include topsoil and re-vegetation
- \_\_\_\_\_ Sight obstruction/visibility triangles: NO structures permitted in visibility triangle
- \_\_\_\_\_ Maintenance agreements for private street/roadway/drive, short courts (see easements)
- \_\_\_\_\_ Bridges/culverts
- \_\_\_\_\_ Temporary turn-around, required at phase break(s)
- \_\_\_\_\_ Infrastructure improvements to be constructed within the public right-of-way
- \_\_\_\_\_ Clearly show tick marks for each item (i.e., gutter profile, intersection-to-intersection, road x-sections, curb-to-curb, etc.)
- \_\_\_\_\_ Bike lane(s), location, design, connected, functional, ADA compliance
- \_\_\_\_\_ Other

**Comments**

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**TRAFFIC MANAGEMENT (must fully conform to MUTCD, FHWA, MDOT, UVC)**

Must satisfy all requirements for location, design, minimum radii, landscaping and irrigation, signing and striping, pedestrian facilities, and maintenance agreements

- \_\_\_\_\_ Roundabout(s): location, design, functional; ADA compliant
- \_\_\_\_\_ Traffic circle(s): location, design, functional; ADA compliant
- \_\_\_\_\_ Bulb-out(s): location, design, functional; ADA compliance
- \_\_\_\_\_ Mid-block pedestrian crossing(s): location, design, functional; ADA compliance
- \_\_\_\_\_ Chicane(s): location, design, functional compliance
- \_\_\_\_\_ Medians/island(s): location, design, functional compliance; ADA compliance
- \_\_\_\_\_ Raised crosswalk(s): location, design, functional; ADA compliance
- \_\_\_\_\_ Speed table(s): location, design, functional; ADA compliance
- \_\_\_\_\_ Construction cross-section specifications and design (curb/pavement/sidewalk, asphalt /concrete thickness, base thickness, mix design, testing, type and location of pedestrian facilities/sidewalks)
- \_\_\_\_\_ Infrastructure improvements to be constructed within the public right-of-way
- \_\_\_\_\_ Construction quantities reported in the following units (no exceptions):
  - \_\_\_\_\_ lineal feet for curb
  - \_\_\_\_\_ sq. ft. for asphalt, sidewalk, and aprons
- \_\_\_\_\_ Pedestrian warning lights
- \_\_\_\_\_ Other
- \_\_\_\_\_ Signal type, location, material, application, etc.
- \_\_\_\_\_ Modification, retiming
- \_\_\_\_\_ Electrical Plans
- \_\_\_\_\_ Other

**Comments**



## CURBING

- \_\_\_\_\_ Location
- \_\_\_\_\_ Curb type; “A”, “B”, “K” – cove, “L”, standard drawings
- \_\_\_\_\_ Design cross-section: materials, specifications, standard drawings
- \_\_\_\_\_ Access points/curb cut(s): location, width, transition, type—commercial/residential
- \_\_\_\_\_ Controlled access: right-in/right-out, “pork-chop” islands, etc.
- \_\_\_\_\_ ADA compliance – ramp: location, adjacent alignment
- \_\_\_\_\_ Callouts with each of these items labeled: width, grades, landings, cross- slope, detectible/tactile warning/truncated domes, profile thru flowline, etc.
- \_\_\_\_\_ Provide USPS letter authorizing mailbox location(s)
- \_\_\_\_\_ Mail-stop pullout (refer to standard drawing), bus stop pullout, over-flow parking, etc.
- \_\_\_\_\_ Construction cross-section specifications and design (curb thickness, profiles, base thickness, mix design, testing, type, and location of pedestrian facilities/sidewalks)
- \_\_\_\_\_ Infrastructure improvements to be constructed within the public right-of-way
- \_\_\_\_\_ Construction quantities reported in the following units (no exceptions):
  - \_\_\_\_\_ lineal feet for curb
  - \_\_\_\_\_ sq. ft. for asphalt, sidewalk, and aprons
- \_\_\_\_\_ Other

## Comments

## SIGNING AND STRIPING (must fully conform to MUTCD, FHWA, MDOT, UVC)

- \_\_\_\_\_ Sign Plan: location, type, application, etc., per standard drawing
- \_\_\_\_\_ Sign material specifications: retro-reflectivity (high-intensity), dimensions, thickness, height, width, symbols, etc.
- \_\_\_\_\_ Sign mounting/base
- \_\_\_\_\_ Sign text: wording/message(s); block numbers, font, etc.
- \_\_\_\_\_ Construction quantities: number of signs to be installed within the public right-of-way
- \_\_\_\_\_ Striping Plan: location, material, application, symbols, etc., per standard drawing dimensions, striping lengths, and City Engineering approval
- \_\_\_\_\_ Striping material specifications: paint thickness (coverage), waterborne epoxy, retro-reflectivity, color, glass bead application, etc.
- \_\_\_\_\_ Construction quantities: lineal feet of painted curbing and asphalt to be applied within the public right-of-way
- \_\_\_\_\_ Other
- \_\_\_\_\_ Plan sheets clearly labeled as “Signing and Striping Plan – Plan View – Details”
- \_\_\_\_\_ North arrow shall generally be oriented up 90 degrees from the west, or to the right of the sheet (streets oriented north and south)
- \_\_\_\_\_ Scale bar - plans shown “Not to Scale” will not be accepted
- \_\_\_\_\_ All signs shall be graphically depicted in the direction of travel as “New” according to the correct

MUTCD designation with the correct sign ID code and appropriate size, station, or location

- \_\_\_\_\_ Existing signs shall be shaded back and labeled as “Existing” designated to remain, to be removed and salvaged, or to be relocated. Include graphic depiction in the direction of travel with the correct MUTCD designation with the correct sign ID code and existing size and station or location.
- \_\_\_\_\_ The Design Engineer shall field verify all existing signs, including advance or approach and detours (temporary) signing applicable to the project and show on plans. Signs on the plan sheet shall be referenced, including location or station and status of the sign. Signs that are faded or damaged shall be identified and a notation added to remove and replace with new.
- \_\_\_\_\_ Are there existing signs that are old and need to be replaced within the project limits? All existing signs within the project limits shall be field checked and be included on the plans to be replaced with new signs.
- \_\_\_\_\_ For existing signs outside project limits that are affected because of the project, signs are required to be replaced by the project. All other signs outside of project limits and/or not affected by the project will be City responsibility.
- \_\_\_\_\_ When placing signs back-to-back, make sure the distinctive shape of the sign facing traffic is not occluded.
- \_\_\_\_\_ Signing shall match the striping and vice versa.
- \_\_\_\_\_ Break lines shall be used to show TRAFFIC CONTROL CHANGE AHEAD (if necessary) at the actual location and per the MUTCD (1000 feet before the intersection where new traffic control will be provided).
- \_\_\_\_\_ To ensure no signs are left off the plans by identifying existing signs that are not exclusive to the project and coordinate with the City.
- \_\_\_\_\_ Match lines shall be shown to the existing striping and labeled with stationing.
- \_\_\_\_\_ Match lines and obliteration lines shall be for the entire roadway width unless otherwise necessary.
- \_\_\_\_\_ All existing striping shall be shown (shaded back), identified by type and width, and completely dimensioned across the roadway.
- \_\_\_\_\_ All new striping shall be clearly identified noting color and line width. Include beginning and ending stations. Striping shall be completely dimensioned across the roadway.
- \_\_\_\_\_ All limits of striping to be removed shall be clearly marked and noted if to be removed by resurfacing or new pavement.
- \_\_\_\_\_ All pavement arrows, crosswalks, stop bars, symbols, bike lane symbols, sharrows, shall be located by station or dimension lines.
- \_\_\_\_\_ Lane widths shall be shown from center of stripe to center of stripe or from center of stripe front of curb at each and every transition point (e.g., at beginning of add or drop lane tapers, etc.). This is necessary for layout during construction.
- \_\_\_\_\_ Right-turn and left-turn striping length shall be shown and be consistent with the recommendations of the Traffic Impact Study.
- \_\_\_\_\_ ROW shall be shown at beginning and end of project and where transition in ROW width exists. Multiple ROW lines shall be labeled with the name of the appropriate jurisdiction
- \_\_\_\_\_ Striping that may be stipulated with the Development/Project Conditions, Requirements Approval as required for any developments/projects (e.g., access points, provisions for transit stops, hatch striping for additional pavement in interim stages, etc.) shall be included.

- \_\_\_\_\_ Detail of hatch striping shall be shown, complete with color and width of individual stripes, angle of and dimension distance between diagonals. Diagonal angles shall be shown from edge line.
- \_\_\_\_\_ Public intersections shall not be striped through. Striping shall continue through private streets or driveways.
- \_\_\_\_\_ All unnecessary line work shall be shaded back. New and existing edge of pavement or face of curb shall be shown and labeled as solid lines (shaded back), not dashed, so as not to be confused with striping that may be dashed.
- \_\_\_\_\_ Temporary striping can be paint instead of standard epoxy

**Comments**

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**DRIVEWAYS – Access / Approaches**

Refer to Article 3 of the City Subdivision Regulations and the Missoula City Public Works Standard Specifications for projects that are not subdivision related

- \_\_\_\_\_ Location (multiple/shared, public/private street/road/drive/alley, etc.)
- \_\_\_\_\_ Distance from intersection: dimension minimum distance from intersection or crosswalk (must comply with MMC 12.12.170D and E)
- \_\_\_\_\_ Width of approach(es), curb cut, must be constructed perpendicular (90° degrees) to the adjacent street
- \_\_\_\_\_ Grades: 8% percent maximum
- \_\_\_\_\_ Cross-section: as applicable to driveways, drainage cuts/fills, base/asphalt/concrete depth
- \_\_\_\_\_ Construction cross-section specifications and design (curb thickness, base thickness, mix design, testing, type, and location of pedestrian facilities/sidewalks)
- \_\_\_\_\_ Construction quantities: lineal feet and/or square feet of asphalt and/or concrete infrastructure improvements to be constructed within the public right-of-way
- \_\_\_\_\_ Other

**Comments**

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**PEDESTRIAN ACCESS – Non-Motorized Circulation; Sidewalks, Trails, Bicycles**

Non-motorized facilities, including sidewalks, shared use paths, bike lanes, and crossings, shall adhere to AASHTO and/or NACTO guidelines and meet ADA standards

- \_\_\_\_\_ Existing facilities within 300 feet of the project limits shall be shown on the plans
- \_\_\_\_\_ Location: both/one side(s) of street, other/additional location(s)
- \_\_\_\_\_ Sidewalk design
- \_\_\_\_\_ Width, cross-section, material, etc. – standard drawings
- \_\_\_\_\_ Label widths, x-section slope, running slope (not combined)
- \_\_\_\_\_ Sidewalk and boulevard width per approved construction plans

- \_\_\_\_\_ Construction cross-section specifications and design (concrete sidewalk thickness, base thickness, jointing, mix design, testing, type and location of pedestrian facilities / sidewalks)
- \_\_\_\_\_ Backfilling boulevard and adjacent to sidewalk
- \_\_\_\_\_ ADA compliance; location, width, ramps/grades, landings, cross-slope, detectible warning/truncated domes, etc.
- \_\_\_\_\_ provide ramp grade as a percentage (vector) down center of proposed ramp
- \_\_\_\_\_ Label width, length, slope and cross slope, dimensions of detectable warning plates
- \_\_\_\_\_ Trail (width, location)
- \_\_\_\_\_ Connections; between on-site pedestrian facilities, parks, common area(s), with adjacent property(ies)/subdivision(s), etc.
- \_\_\_\_\_ Street-crossing (mid-block, bulb-out, etc.)
- \_\_\_\_\_ Bike lanes (width, location)
- \_\_\_\_\_ Bridges, non-motorized access; pedestrians, bicycles, trails, etc.
- \_\_\_\_\_ Other

**Comments**

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**PARKING – Overflow**

- \_\_\_\_\_ Location: label—distance from intersections, access, and type; parallel, head in/back in, angled: 90°, 60°, 45°
- \_\_\_\_\_ Dimensions: length, width
- \_\_\_\_\_ Grading and drainage
- \_\_\_\_\_ Parking Signage
- \_\_\_\_\_ Pedestrian access: connection to sidewalks, trails, etc.
- \_\_\_\_\_ ADA compliance: width, ramps/grades, landings, cross-slope, etc.
- \_\_\_\_\_ Railroad crossing with truncated domes
- \_\_\_\_\_ Other

**Comments**

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**BUS STOPS**

- \_\_\_\_\_ Location; distance from intersections, signing, configuration, standard drawings
- \_\_\_\_\_ Pedestrian Access; connection to sidewalk, trails, etc.
- \_\_\_\_\_ ADA compliance; width, ramps/grades, landings, cross-slope, etc.
- \_\_\_\_\_ Bus Stop pull out
- \_\_\_\_\_ Mountain Line approval
- \_\_\_\_\_ Other

**Comments**

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### CLUSTER MAILBOX FACILITIES (U.S.P.S. Postmaster approval required)

- Location
- Pedestrian Access; connection to sidewalk, trails, etc.
- ADA compliance; width, ramps/grades, landings, cross-slope, etc.
- Documented U.S.P.S. (Postmaster) approval of location/design
  - Letter of approval required with Stage 3 submittal
- Mail stop pull out
- Other

#### Comments

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### STREETLIGHTS

- Location, minimum; intersections, pedestrian crossings, mid-block pedestrian crossings, etc.
- Maintenance agreement: covenants
- Lighting District information and/or Establishment
- Compliance with Missoula Outdoor Lighting Ordinance – MMC 8.64
- Photometric design plan sheet
- Electrical design plan sheet
- Equipment submittals
- Other

#### Comments

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### SURFACE DRAINAGE

- Natural drainage: existing *both* on-site and adjacent off-site
- Storm drainage: calculations, location on-site/off-site, collection/retention/detention, and source areas, City Public Works Standards and Specifications Manual (See also “STORMWATER” section below in “UTILITY INFRASTRUCTURE” review)
- Surface drainage – existing/proposed; calculations, cross-sections, overflow, crossings: culvert / bridge sizing, vegetation, etc.
- Surface drainage – individual lots
  - Swales: between lots and through development / subdivision
  - Covenants
  - Building permit specific conditions / requirements
  - Other
- Foundation drains (separate collection system for foundation drainage on hillside development)
- Maintenance: public/private, homeowner’s association, agreement(s)
- Structures: inlets, dry wells, manholes; location, design, capacity, etc.

- \_\_\_\_\_ Construction quantities; structure inventory, type, and lineal feet to be constructed within the public right-of-way
- \_\_\_\_\_ Other

**Comments**

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**EROSION CONTROL (must fully conform to US EPA and MT DEQ)**

- \_\_\_\_\_ Erosion Control Site Plan per the City’s site plan review checklist
- \_\_\_\_\_ Submit for Montana DEQ SWPPP Permit to ensure enough lead time – For projects with a disturbance greater than one acre. Permit required prior to any work performed onsite. DEQ Notice of Intent (NOI) Confirmation Letter and SWPPP Packet submitted to DEQ will be provided at Stage 4 or at Permitting.
- \_\_\_\_\_ Maintenance responsibilities: shall remain in place and be adequately maintained throughout the duration of all site development and individual lot construction
- \_\_\_\_\_ Other

## UTILITY INFRASTRUCTURE

**Do not leave boxes blank; ALL MUST BE EITHER CHECKED (X or ✓) or N/A as appropriate**

### WATER (reviewed by Missoula Water and City Fire Department)

- Fittings: location, type, end connections (flanged, MJ, etc.)
- Mains: location, sizing, profile, separation, specifications, calculations, etc.
- Valves, hydrants, blowoffs, and air release valves: location, sizing, profile, etc.
- Orientation of butterfly valve actuator compared to mainline shall be indicated (e.g., “actuator north of main”)
- Easement locations, including easements that may be required to the property line for future extensions
- Stub-outs: location, property marked
- Specifications: pipe type(s), sizing, bedding, gradations, frost protection, marking, and compaction
- Number and location (by lot) of stub-outs for auditing and permitting purposes
- Construction quantities: lineal feet of pipe by size and inventory of appurtenances to be constructed within the public right-of-way
- Plans show all utilities in plan view and all utility crossings in profile view
- Approval letter from Fire Department for:
  - Fire hydrant locations
  - Fire flow requirements
- Other

### Comments

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### SANITARY SEWER

- Ownership: Public or Private
- Type (Gravity, Dry lay, Siphon)
- County review for additional county rules and regulations
- Conformance to City, County and State specifications and requirements; thrust restraint on mains over 20% grade, etc.
- Structures: location, access,
- Manholes: location, access, type, hole schematic
- Gravity mains: location, sizing, profile, separation, specifications, calculations, etc.
- Lift stations: location, sizing, access both to site and internal, security, specifications, etc.
- Force mains: location, sizing, profile, ports, valves, etc.
- Easement locations
- S.T.E.P. systems and appurtenances designed and engineered for commercial use
- S.T.E.P. mains: location, sizing, profiles, ports, valves, etc.
- S.T.E.P. Tanks and appurtenances: residential, commercial, and community



- \_\_\_\_\_ Floodplain requirements
- \_\_\_\_\_ Stub-outs: location, property marked
- \_\_\_\_\_ Shallow groundwater requirements
- \_\_\_\_\_ Specifications: pipe type(s), sizing, dry wells, sumps, bedding, gradations, frost protection, marking, and compaction
- \_\_\_\_\_ Number and location (by lot) of stub-outs for auditing and permitting purposes
- \_\_\_\_\_ Construction quantities: lineal feet of pipe by size and inventory of appurtenances to be constructed within the public right-of-way
- \_\_\_\_\_ Plans show all utilities in plan view and all utility crossings in profile view
- \_\_\_\_\_ Other

**Comments**

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**STORMWATER**

- \_\_\_\_\_ Stormwater Management Site Plan per the City’s site plan review checklist. Projects with dry wells require a Class V Underground Injection Well Inventory Form submitted to EPA Region 8.
- \_\_\_\_\_ Stormwater Drainage Report
- \_\_\_\_\_ Ownership: Public or Private
- \_\_\_\_\_ Material Type (e.g., HDPE, PVC, reinforced concrete)
- \_\_\_\_\_ Conformance with current EPA and state (MT DEQ) rules, regulations, and practices
- \_\_\_\_\_ Mains: location, sizing, profile, separation, specifications, calculations, etc.
- \_\_\_\_\_ Appurtenances: manholes, inlets, grates, outfalls, manhole schematic, diffusers, beehives, etc.
- \_\_\_\_\_ Access: appurtenances; collection, retention, and detention systems, etc.
- \_\_\_\_\_ Specifications: pipe type(s), sizing, dry wells, bedding, gradations, marking, and compaction
- \_\_\_\_\_ Shallow groundwater requirements
- \_\_\_\_\_ Construction quantities: lineal feet of pipe by size and inventory of appurtenances to be constructed within the public right-of-way
- \_\_\_\_\_ Plans show all utilities in plan view and all utility crossings in profile view
- \_\_\_\_\_ Show impervious/drainage area per dry well
- \_\_\_\_\_ Other

**Comments**

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## PRIVATE UTILITIES

- \_\_\_\_\_ Master Plan
- \_\_\_\_\_ Gas: location, placement of related appurtenances, etc.
- \_\_\_\_\_ Electric: location, placement of related appurtenances, streetlights, etc.
- \_\_\_\_\_ Communications—telephone, television, etc.: placement of related appurtenances
- \_\_\_\_\_ Construction quantities: lineal feet of each utility and inventory of appurtenances to be constructed within the public right-of-way
- \_\_\_\_\_ Plans must show right-of-way limits, existing utilities, and proposed utilities
- \_\_\_\_\_ Other

## Comments

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### APPLICANTS CERTIFICATION:

I have reviewed all information and this submittal is true and accurate. To the best of my knowledge, all requirements as specified in Title 17, Articles 3, 5 and 9 of Subdivision Regulations have been satisfied.

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Developer Representative's Signature

Date