

PRELIMINARY CONSTRUCTION PLAN REVIEW CHECKLIST STAGE 3

In addition to those items specified in Title 17, Articles 3 and 5 of the Subdivision Regulations; the following information must be addressed in the subdivision application or project documentation, as applicable, for review and approval by the City of Missoula, Public Works Department – Engineering Division

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

Project Name: _____
 City File No.: *(to be completed by City Engineering)* _____
 Developer's Representative: _____
 Date Submitted: _____

All submitted construction drawings shall include and reference the current version / latest revision of any / all applicable City of Missoula Standard Drawings. Prior to submittal, please review the City of Missoula website for current standard drawings;

[Standard Drawings](#)

STANDARD DRAWING SECTION	STANDARD DRAWING NUMBER
Curbs, Sidewalks and Driveways	100 series / STD-1nn
Streets	200 series / STD-2nn
Sanitary Sewer	300 series / STD-3nn
Miscellaneous	400 series / STD-4nn
ADA and Parking	500 series / STD-5nn
Storm Drainage	600 series / STD-6nn
Traffic Control Plans	'TC' series / TC-nnn

(All efforts are made to communicate revisions; however, standard drawings may be revised with or without notice)

STAGE NUMBER	STAGE PROCESS
1	Sewer Availability
2	Sufficiency Review Checklist
3	<i>Preliminary Construction Plan Review Checklist</i>
4	Release For Construction (RFC) Plan Checklist
5	Final Construction and Inspection Checklist
6	Documentation, As-Built and Testing Checklist
7	Warranty Inspection Checklist

SUBMITTAL DOCUMENTATION

PROJECT CONSTRUCTION PLAN DOCUMENTATION –

Stage 3

PRE-APPROVAL --- Stage 3 – Preliminary Construction Plans

HARD COPY – PAPER:

- _____ One (1) copy of Preliminary Construction Plans (subdivision / sewer main extension / or other miscellaneous project), D-size (24" X 36")
- _____ Three (3) copies of Preliminary Construction Plans, B-size (11" X 17") (COMPLETE SET) (subdivision / sewer main extension / or any other miscellaneous project)
- _____ One (1) copy of MT DEQ Sanitary Sewer Approval Letter (subdivision / sewer project)
- _____ **Three (3) copies of Storm Water Pollution Prevention Plan (SWPPP) for Subdivision or Sewer Main Extension projects, five (5) copies for any other project, to include;**
 - _____ MT DEQ NOI Approval Letter
 - _____ MT DEQ SWPPP Approval Letter
- _____ Three (3) copies of the Utility Service Location Plan; i.e. gas, power, telephone, fiber optic cable, etc.
- _____ Three (3) copies of proposed Boulevard Landscaping Plan
- _____ Two (2) copies of approved conditions of subdivision approval from City / County
- _____ Two (2) copies of the completed / signed Stage 3 Checklist (this document)
- _____ Two (2) copies of project specifications
- _____ One (1) copy of the current preliminary plat for addressing purposes (subdivision project)
- _____ Other

TRACK "SUBMITTAL PROGRESSION" ON FOLLOWING PAGE

POST-APPROVAL --- proceed to Stage 4 – Released for Construction (RFC) Plans

HARD COPY – PAPER: (All Projects)

- _____ One (1) copy of Released for Construction (RFC) Plans, D-size (24" X 36")
- _____ Five (5) copies of Released for Construction (RFC) Plans, B-size (11" X 17") (COMPLETE SET) if project is a SUBDIVISION, Three (3) copies if project is for a SEWER MAIN or any other infrastructure project
- _____ Three (3) copies of RFC Utility Location Plan; i.e. gas, power, telephone, fiber optic cable, etc.

DIGITAL / ELECTRONIC:

- _____ One (1) copy of final lot / parcel layout for preliminary addressing
 - ➔ AutoCAD (electronic) *.DWG format (subdivision projects)

_____ One (1) copy of AutoCAD DWG format CD containing **ALL** RFC Plans (all projects)

Comments

SUBMITTAL PROGRESSION –

Stage 3

_____ First (1st) Preliminary Construction Plan Review Submittal

_____ Proceed to "Post-Approval – Stage 4 - Released for Construction (RFC)" on preceding page, 2 of 13

_____ Revise and Resubmit

_____ Second (2nd) Preliminary Construction Plan Review Submittal

_____ Proceed to "Post-Approval – Stage 4 - Released for Construction (RFC)" on preceding page, 2 of 13

_____ Revise and Resubmit

_____ Third (3rd) Preliminary Construction Plan Review Submittal

_____ Proceed to "Post-Approval – Stage 4 - Released for Construction (RFC)" on preceding page, 2 of 13

_____ Revise and Resubmit

_____ Other

Comments

SURFACE INFRASTRUCTURE

TOPOGRAPHY / GEOTECHNICAL – Hillside / Site Grading

Stage 2, 3

- Rock / outcrop issues
- Adjacent property topography (grade match)
- Grading plan (existing / proposed, pre-graded lots, cuts / fills, access issues)
- Cut and fills (R-O-W work must be located within R-O-W) 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 surface drainage
- Other

Comments

BLOCKS

Stage 2, 3

- Conformance to City Subdivision Regulations, Article 3, or the Missoula City Public Works Standard Specifications 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.
- Other

Comments

LOTS

Stage 2, 3

- Configuration; buildable area, slope, pre-grading
- Access; slope, distance from intersections, no access designation
- Sight obstruction / visibility triangles; NO structures permitted in visibility triangle
- Other

Comments

EASEMENTS

Stage 2, 3, 4

No permanent structures are allowed within easements.

_____ Existing easement(s)

_____ Proposed easement(s)

_____ Public / Private utility easement(s) (location, width – includes;
[overhead and/or buried] sanitary sewer, storm sewer, water, electric, natural /
propane / high-pressure gas, petroleum, telephone, cable and other utilities)

 ➔ Main(s) twenty (20') feet minimum easement width

 ➔ Service(s) fifteen (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 property(ies) easement(s) (width / location)

_____ Other _____

_____ Other _____

_____ Other _____

_____ Other

Comments

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

Stage 2, 3, 4, 5, 7

Refer to Article 3 of the City Subdivision Regulations or the Missoula City Public Works Standard 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) – six hundred (600') feet maximum length

- _____ Short court (length, number of units served) –
 - ➔ two hundred (200') feet maximum length
 - ➔ twenty (20') feet minimum width
- _____ Overflow parking (length, width, number of spaces)
- _____ 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)
- _____ 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)
- _____ 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

TRAFFIC MANAGEMENT (must fully conform with MUTCD, FHWA and MT DOT)

Stage 2, 3, 4, 5, 7

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

- _____ Round-a-bout(s); location, design, functional; ADA compliance
- _____ Traffic circle(s); location, design, functional; ADA compliance
- _____ 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
- _____ 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)
- _____ 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

CURBING

Stage 2, 3, 4, 5, 7

- _____ 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, width, grades, landings, cross-slope, detectible / tactile warning / truncated domes, profile thru flow-line, etc.
- _____ Mail-stop pull-out, bus-stop pull-out, over-flow parking, etc.
- _____ 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

SIGNING AND STRIPING (must fully conform with MUTCD, FHWA and MT DOT)

Stage 2, 3, 4, 5, 7

- _____ 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 / verbiage / message(s) / block numbers, 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
- _____ Striping Material Specifications; paint thickness (coverage), water-born epoxy, retro-reflectivity, color, glass bead application, etc.
- _____ Traffic Control Devices (traffic signals); signal type, location, material, application, etc.
- _____ Construction quantities; lineal feet of painted curbing and asphalt to be applied within the public right-of-way
- _____ Other

Comments

DRIVEWAYS – Access / Approaches

Stage 2, 3, 4, 5, 7

Refer to Article 3 of the City Subdivision Regulations or 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; minimum distance from intersection or crosswalk
- _____ Width of approach(es), curb cut, must be constructed perpendicular (ninety (90°) degrees) to the adjacent street
- _____ Grades; eight (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

PEDESTRIAN ACCESS – Non-Motorized Facilities; Sidewalks, Trails, Bicycles

Stage 2, 3, 4, 5, 7

- _____ Sidewalk design
 - _____ Location; both / one side(s) of street, other / additional location(s)
 - _____ Width, cross-section, material, etc. – standard drawings
 - _____ 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.
- _____ 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

PARKING – Overflow

Stage 2, 3, 4, 5, 7

- _____ Location; distance from intersections, access, 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.
- _____ Other

Comments

BUS STOPS

Stage 2, 3, 4, 5, 7

- _____ Location; distance from intersections, signing, configuration, standard drawings
- _____ Pedestrian Access; connection to sidewalk, trails, etc.
- _____ ADA compliance; width, ramps / grades, landings, cross-slope, etc.
- _____ Other

Comments

CLUSTER MAIL BOX FACILITIES (U.S.P.S. Postmaster approval required)

Stage 2, 3, 4, 5

- _____ Location
- _____ Pedestrian Access; connection to sidewalk, trails, etc.
- _____ ADA compliance; width, ramps / grades, landings, cross-slope, etc.
- _____ Documented U.S.P.S. (Postmaster) concurrence with location / design, letter of approval
- _____ Other

Comments

STREET LIGHTS

Stage 2, 3, 4, 5

- _____ Location, minimum; intersections, pedestrian crossings, mid block pedestrian crossings,
etc.
- _____ Maintenance agreement; covenants

- _____ Lighting District information
- _____ Compliance with Missoula Outdoor Lighting Ordinance – MMC 8.64
- _____ Other

Comments

SURFACE DRAINAGE

Stage 2, 3, 4, 5, 7

- _____ Natural drainage; existing *both* on-site and adjacent off-site
- _____ Storm drainage; calculations, location on-site / off-site, collection / retention / detention, and source areas
(see also ‘STORM SEWER’ 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, sumps, manholes; location, design, capacity, etc.
 - ➔ One (1) per ten thousand (10,000 S.F.) square feet, minimum
- _____ Construction quantities; structure inventory, type and lineal feet to be constructed within the public right-of-way
- _____ Other

Comments

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

Stage 2, 3, 4, 5, 7

- _____ Montana DEQ one (1) copy *each* required; (see the Stage 3 Summary for more information)
 - _____ SWPPP approval letter
 - _____ SWPPP approved plan
 - _____ SWPPP Notice of Intent (NOI)
- _____ SWPPP (Storm Water Pollution Prevention Plan) required;
 - _____ Reference to and include City of Missoula standard drawings, where applicable
 - _____ Apply specific treatments
 - _____ Apply to specific locations

- Include design specifications
- BMP (Best Management Practices); specifications
- Maintenance responsibility(ies); shall remain in place and be adequately maintained throughout the duration of all site development and individual lot construction
- Other

Comments

UTILITY INFRASTRUCTURE

SANITARY SEWER

Stage 2, 3, 4, 5, 7

- _____ Type (Gravity, S.T.E.P., Force, Dry lay)
- _____ State D.E.Q. approval letter
- _____ County review for additional county rules and regulations
- _____ Conformance to City, County and State specifications and requirements; thrust restraint on mains over twenty (20%) percent grade, ownership, etc.
- _____ Structures; location, access,
- _____ Manholes; location, access, type
- _____ 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.
- _____ 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, bedding, gradations, 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
- _____ Other

Comments

STORM SEWER

Stage 2, 3, 4, 5, 7

- _____ Type (Gravity, S.T.E.P., Force, Dry lay)
- _____ Conformance with current E.P.A. and state (MT D.E.Q.) rules, regulations and practices
- _____ Mains; location, sizing, profile, separation, specifications, calculations, etc.
- _____ Appurtenances; manholes, inlets, grates, outfalls, diffusers, beehives, etc.
- _____ Access; appurtenances, collection / retention / detention systems, etc.
- _____ Specifications; pipe type(s), sizing, 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
_____ Other

Comments

WATER (reviewed by Mountain Water Company and City Fire Department)

Stage 2, 3, 4, 5, 7

_____ Conformance with current state (MT D.E.Q.) rules, regulations and practices
_____ Mains; size, location, valves, separation, etc.
_____ Stub-outs; location, property marked
_____ Fire protection; mains to structures: commercial, industrial and residential
_____ Hydrants; location within 500 feet, clear zone, charged, verified and approved by Fire Department
_____ Specifications; pipe type(s), sizing, bedding, gradations, marking and compaction
_____ Construction quantities; lineal feet of pipe by size and inventory of appurtenances to be constructed within the public right-of-way
_____ Other

Comments

UTILITIES

Stage 2, 3, 4, 5, 7

_____ Master Plan
_____ Gas; location, placement of related appurtenances, etc.
_____ Electric; location, placement of related appurtenances, street lights, 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
_____ Other

Comments

APPLICANTS CERTIFICATION:

All information has been reviewed by me and to the best of my knowledge all requirements have been satisfied and this submittal is true and accurate.

Developer Representative's Signature

Date