



Big Sky Fire Department

PO Box 160382
Big Sky, MT 59716
(406) 995-2100

Design Requirements for Driveways

Updated February 5, 2019

In order to construct or retrofit a residential driveway within the Big Sky Fire District's (BSFD) boundaries, an overall site plan for the driveway must be submitted to the BSFD as part of the Land Use Permit (Gallatin County), Pre-Construction Safety Review (Madison County) or property development processes.

Outlined below are the general design requirements for residential driveways as per the BSFD policies, the applicable portions of the Gallatin & Madison County Subdivision Regulations and the International Fire Code, 2012 Edition as adopted by BSFD.

Location

Within the right-of-way, the driveway is to connect to the main road at a 90° angle. If this is not possible, designers shall make a request to depart from that standard but no less than a 70° angle allowed. Driveways will not be allowed to be located within 75 feet of an intersection.

Dimensions

For driveways that are less than 300 total feet in length, a minimum unobstructed driving width of 12 feet is required. A 16 foot minimum driving width is required for any driveway over 300 feet in length. A minimum vertical clearance of 15 feet is required for all driveways, as well as a 4 foot zone of reduced vegetation on each side of the driving surface.

In addition to the above, driveways that are 300 feet or longer are to meet the requirements for the turnarounds & turnouts section below. For driveways less than 300 feet in length, no turnout is required.

Each driveway is to have a minimum radius of 3 feet where it meets/joins into the existing roadway.

Alignments

The minimum horizontal centerline radius of the driveway is to be 60 feet, with an exception down to 40 feet for a driveway that is no longer than 60 feet in length (measured along the centerline of the driveway).

Turnarounds & Turnouts

For driveways that are 300 feet or longer, they are required to provide an adequate turnaround space within 50 feet of the residence, as per the attached driveway turnaround diagram. In addition, driveways over 300 feet in length must provide an adequate turnout space at 300' intervals. Turnouts are to match the width of the approved driveway and will be a minimum length of 40 feet. See the included diagram for layouts & dimensions.

Turning Radius

The minimum turning radius for driveways shall be determined from the attached turning radius figure, based on a Residential or Commercial use, unless otherwise approved by the BSFD. The driveway is required to still meet all other applicable standards included herein.

Grades

Residential driveway grades can be no more than 10% at any point and cannot exceed an average of 10% overall, unless otherwise approved by the BSFD. The driveway is recommended to have a cross slope of 2% (typical), unless proven otherwise for storm water conveyance, see the attached typical cross sections.

Landings

Landings are required on all private drive approaches onto the main roadway. A maximum landing grade of 4% will be used for the first 35 feet minimum, measured from the edge of the main roadway. See the included approach detail for clarity.

Side Slopes

Driveway fill side slopes are recommended to not exceed a 2:1 slope within 10 feet of the edge of asphalt, while cut slopes will be allowed up to a 1:1 if rock faced, but a 2:1 if only earth faced, both within 10 feet of the edge of asphalt. Retaining walls may also be provided, per the recommendation of the design engineer and at the discretion of the BSFD, as long as they are set back from the driveway.

Materials

All driveways are required to have a 30-ton minimum rating for two-axle trucks including all roadways, bridges, culverts, cattle guards and all other structural aspects of the driveway.

Site plan Submittal

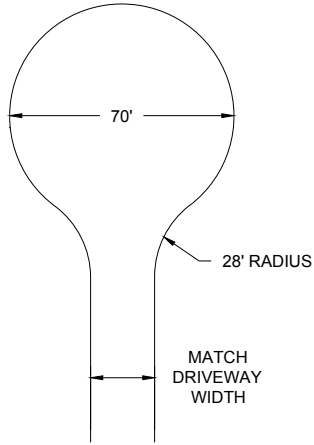
A site plan must be submitted for review by BSFD prior to the start of construction. The site plan should include all of the previous information, i.e. demonstrating grades, turnout locations, turnaround dimensions, etc., as applicable, or justification from a Professional Engineer licensed in the State of Montana. A site plan is not required for overlays, seal coats, or any other modification that does not include changes to the existing horizontal or vertical grades of the driveway.

If there are any questions or comments regarding the driveway layout and design, or if there are extenuating circumstances require a higher level of review, please contact BSFD Deputy Chief of Community Risk Management Dustin Tetrault at (406) 995-2100 or email him at dtetrault@bigskyfire.org.

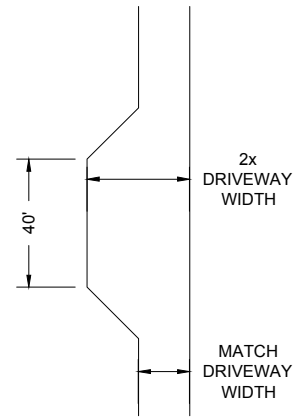


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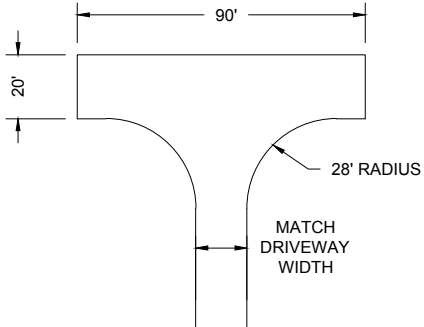
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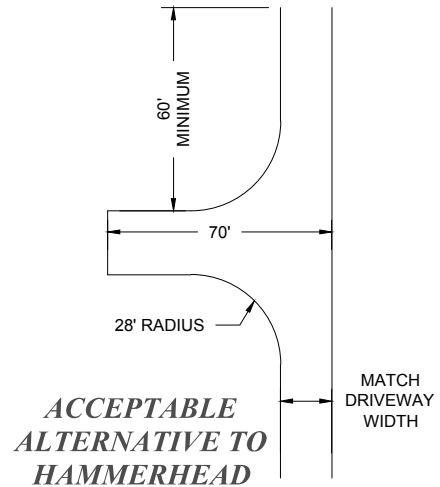
70' Ø CUL-DE-SAC



TURNOUT



90' HAMMERHEAD



**ACCEPTABLE
ALTERNATIVE TO
HAMMERHEAD**

NOTE:

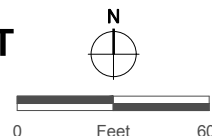
ALSO REFER TO GALLATIN & MADISON COUNTY ROAD DESIGN GUIDELINES FOR DEAD END ROADS, AS WELL AS THE MOST RECENT ADOPTED IFC.

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BIG SKY FIRE DEPARTMENT DRIVEWAY TURNAROUND DIAGRAM

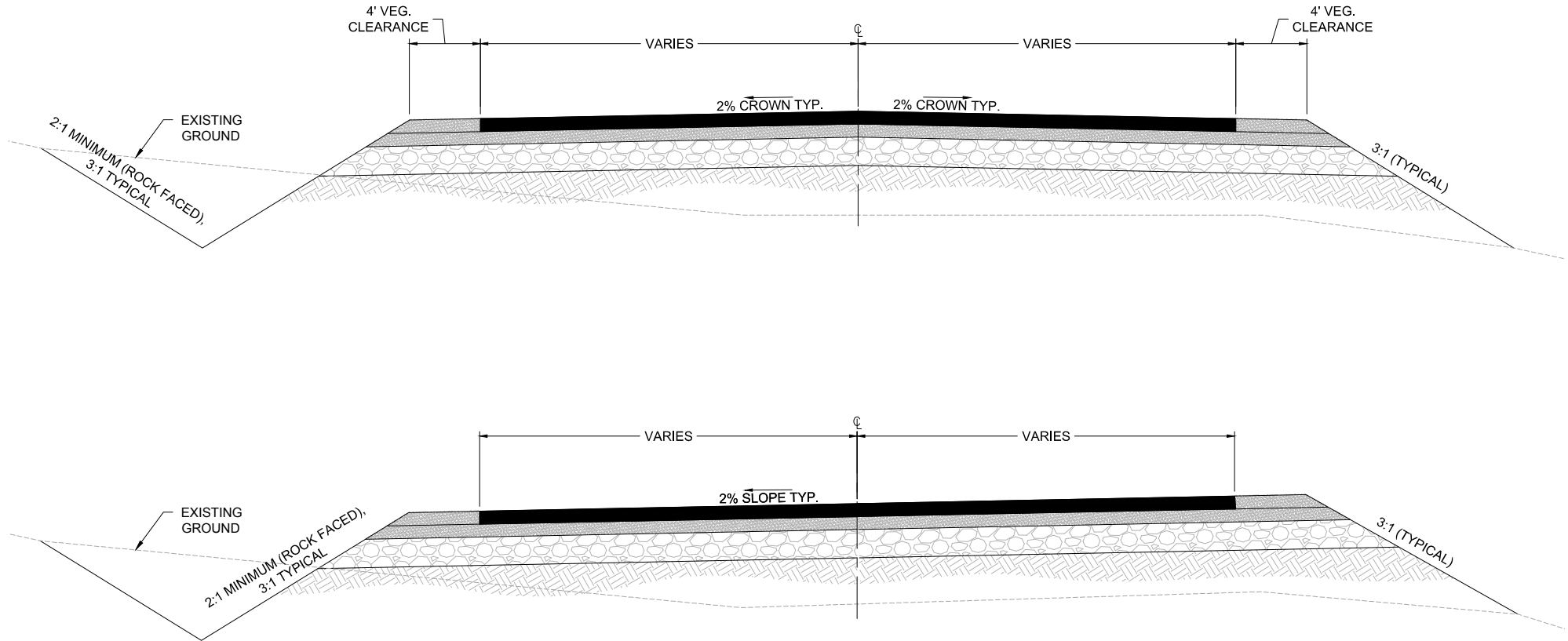


DATE: 04/01/2016
SCALE: AS NOTED
JOB NUMBER: 172592
SHEET: 1 OF 1



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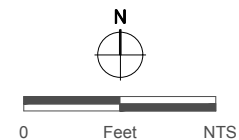
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BIG SKY FIRE DEPARTMENT RESIDENTIAL DRIVEWAY TYPICAL CROSS SECTIONS



DATE : 04/01/2016
 SCALE : NTS
 JOB NUMBER : 172592
 SHEET : 1 OF 1

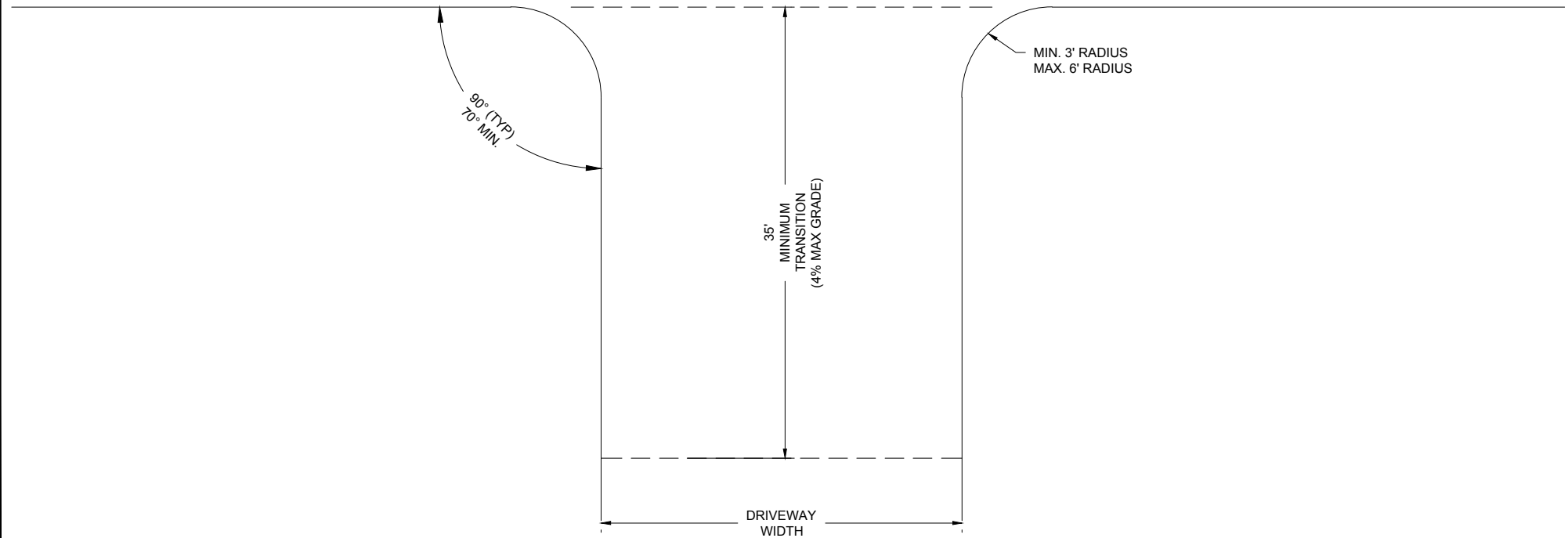
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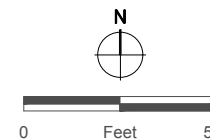
MAIN ROADWAY



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BIG SKY FIRE DEPARTMENT DRIVEWAY TYPICAL CROSS SECTIONS



DATE : 04/01/2016

SCALE : AS NOTED

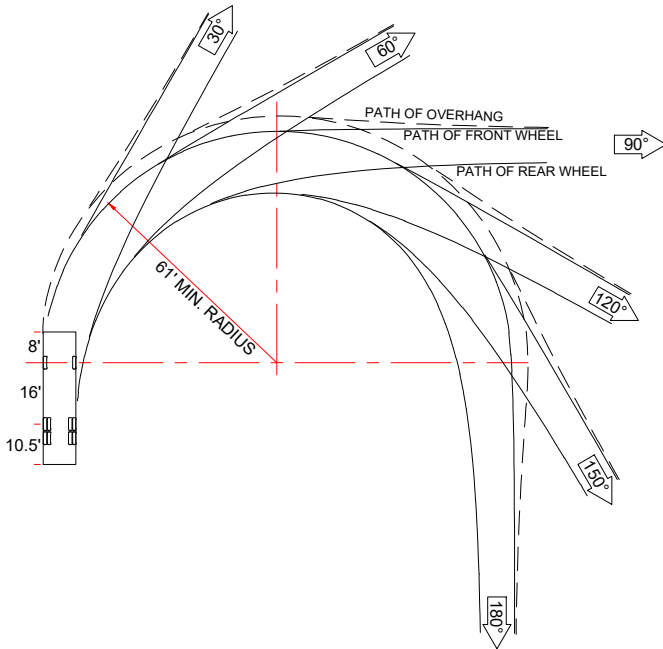
JOB NUMBER : 172592

SHEET : 1 OF 1

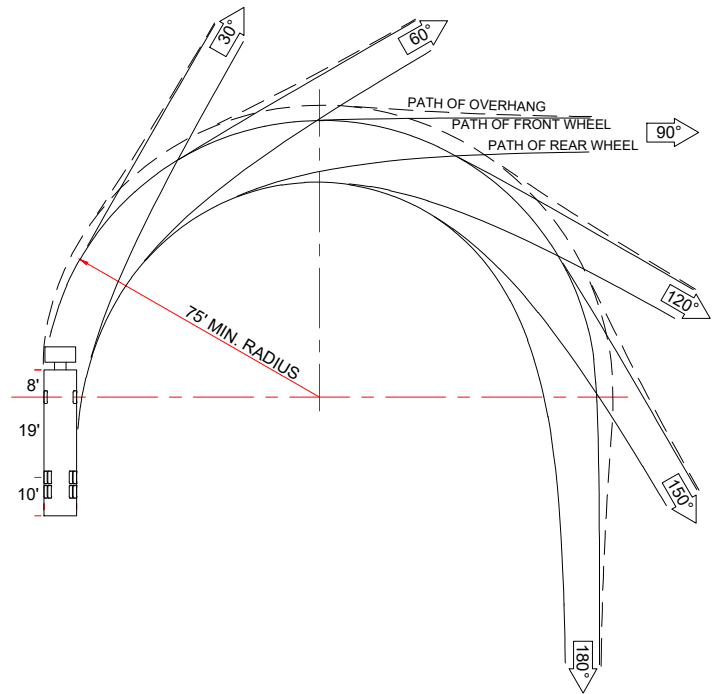


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RESIDENTIAL DESIGN BASIS
61' RADIUS, UNIT 1242
TYPE 1 STRUCTURE ENGINE



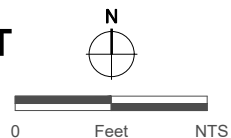
COMMERCIAL DESIGN BASIS
75' RADIUS, UNIT 1257
85' LADDER TRUCK

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BIG SKY FIRE DEPARTMENT
RESIDENTIAL & COMMERCIAL
DRIVEWAY TURNING RADIUS



DATE: 10/01/2018
 SCALE: NTS
 JOB NUMBER: 172592
 SHEET: 1 OF 1