

FIRE APPARATUS ACCESS ROADS

INTENT

To outline fire apparatus access road requirements as found in the currently adopted International Fire Code (IFC). This is a synopsis of the most common requirements for fire apparatus access roads. However, as every project is unique, this is intended as reference material only, and other requirements may exist in the IFC, City of Lewiston Standards or with other City Departments.

REQUIREMENTS

Per IFC Chapter 5:

- Construction Documents.** Construction documents for proposed fire apparatus access shall be submitted to the Fire Department for review and approval prior to construction.
- Timing of Installation.** Fire apparatus access roads shall be installed and made serviceable prior to and during the time of construction. An exception to this would be granting a permit for construction of a noncombustible foundation.
- Where Required - Buildings and Facilities.** Fire apparatus access roads shall extend to within 150 feet of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building.
Exception: The fire code official is authorized to increase the dimension of 150 feet where:
 - The building is equipped throughout with an approved automatic sprinkler system installed in accordance with IFC Chapter 9.
 - Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.
- Additional Access.** The fire code official is authorized to require more than one fire apparatus access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access.
- Dimensions.** Fire apparatus access roads shall have an unobstructed width of not less than 20 feet and an unobstructed vertical clearance of not less than 13 feet 6 inches.
- Authority.** The fire code official shall have the authority to require an increase in the minimum access widths where they are inadequate for fire or rescue operations.
- Surface.** Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities. Reference Public Works Standard appended.

- Turning Radius.** The required turning radius of a fire apparatus access road shall be determined by the fire code official. City of Lewiston Standard is 45-foot radius minimum, without parking.
- Dead Ends.** Dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with an approved area for turning around fire apparatus.
- Grade.** The grade of the fire apparatus access road shall be within the limits established by the fire code official based on the Fire Department's apparatus. City of Lewiston Standard is 11% maximum.
- Marking.** Approved signs shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. Signs shall be maintained in a clean and legible condition at all times and be replaced or repaired when necessary to provide adequate visibility. Reference Lewiston Fire Department SOP 202.08, Address Signs and Regulatory Placards for Fire Access Roads and Multiple Buildings under One Address.
- Obstruction of Fire Apparatus Access Roads.** Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. The minimum widths and clearances shall be maintained at all times.
- Required Access.** An approved access walkway leading from fire apparatus access roads to exterior openings shall be provided when required by the fire code official.
- If conditions exist that would make it impossible for hose lines to be advanced to a certain portion of a building from a required access road, an additional roadway will be required to accommodate access to that particular portion of the building.
- When a private driveway extends farther than the approved access road, then a barrier or sign shall be installed indicating the end of the fire access roadway.
- Access roadways for Group U occupancies, 1,000 square feet and larger, may be modified as follows:
 - Minimum unobstructed width shall be 20 feet with a 16-foot-wide driving surface. These widths allow for the parking of one fire engine and side passage of portable equipment and Fire Department personnel.
 - Group U private accessory buildings of less than 1,000 square feet do not require access roadways as outlined above; however, private property owners are encouraged to build such roads to aid in building safety.
- Additional Fire Protection Systems.** For occupancies of an especially hazardous nature or where special hazards exist in addition to the normal hazards of the occupancy, or where fire access is unduly difficult, the fire code official is authorized to require additional safeguards consisting of additional firefighting appliances. Reference IFC Chapter 9.
- Width.** Fire apparatus access roads shall have a minimum unobstructed width of 26 feet in width in the immediate vicinity of any building or portion of building more than 30 feet in height.

- Access doors or opening(s) shall be required as specified in the International Fire Code and/or Building Code on the exterior wall of a building along required access roadways.
- The minimum turning radius for all fire apparatus access roads shall be 30 feet inside turning radius for hammer-head turnarounds and 45 feet radius for circle-type turnarounds without parking. For variations, reference Public Works Standard.
- Dead-end fire apparatus access roads which are not looped must meet the turn-around criteria.
Note: Curves and topographical conditions could alter the requirements for turnarounds and the width of access roadways.
- The fire apparatus access road is required to have signage to identify its location and prevent the parking of vehicles in the required width.
- The fire apparatus access road surface shall be constructed to City of Lewiston Public Works Standard.

The Building Permit will be issued after the fire apparatus access road is complete and has received final approval from the Fire Department. The process is as follows:

- Upon approval of the plan review, the Fire Department will forward a copy of the approved site plan to the applicant.
- Applicant is then authorized to install the fire apparatus access road per approved site plan and City Standards.
- Upon completion of the installation of fire apparatus access road and all signage, applicant contacts a construction materials testing firm to provide an inspection report that confirms the road was built to City of Lewiston Standard PA-1 or other applicable City Standard. Fire Department shall be furnished with the final report.
- After receipt of the inspection report, the Fire Department will inspect the fire access road signs. After Fire Department approval, the Building Permit will be released.
- Roadways that encounter irregular base material or drainage conditions are subject to approval by the City's Public Works Department, Engineering Division.
- Alterations/deviations from City Standards must have prior approval from the City Engineering Division.
- Remember: The road must be completed and approved through all of the above steps **PRIOR** to the Building Permit being issued, **OR** the stockpiling of combustible materials for construction on site.

Gordon G. Gregg, Fire Chief

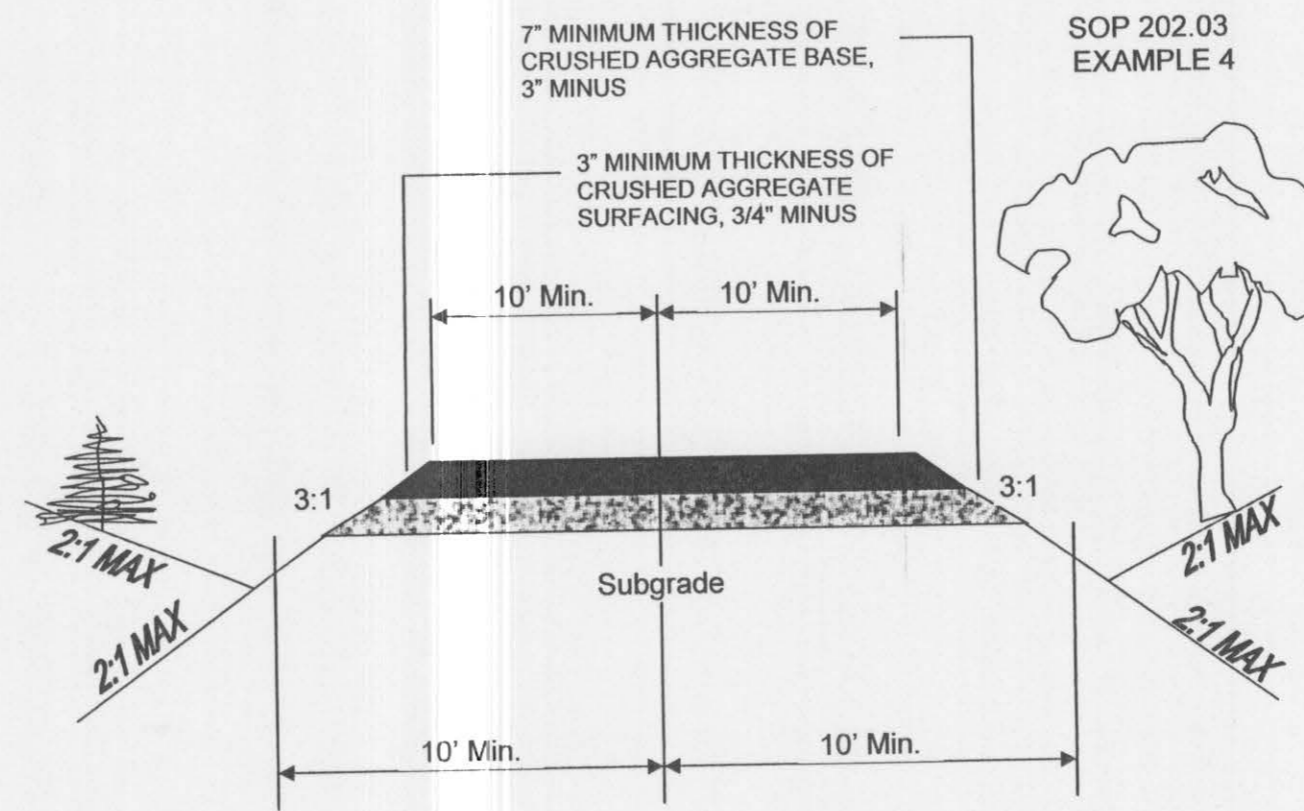
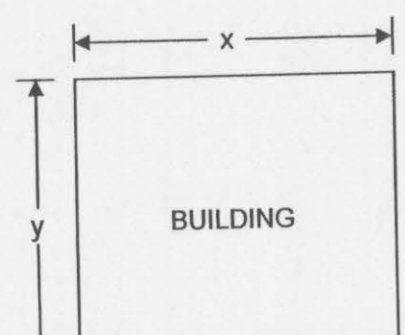
SOP 202.03
EXAMPLE 5

CRUSHED AGGREGATE GRADING REQUIREMENTS FOR BASE OR SURFACE COURSES

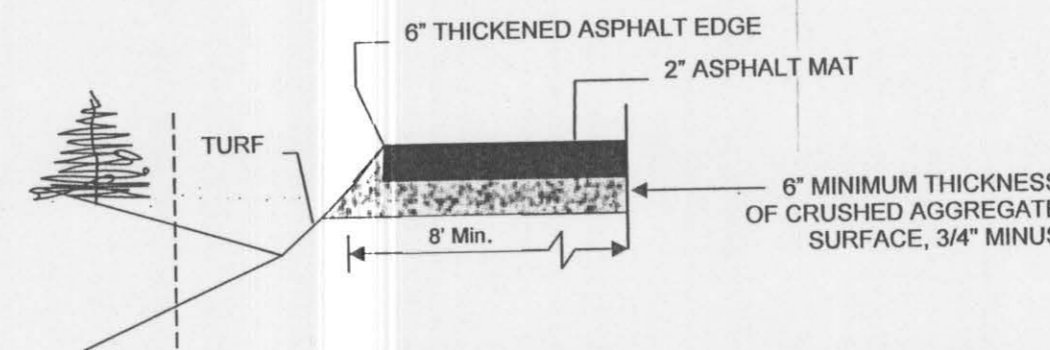
SIEVE SIZE	BASE COURSE GRADATION A	BASE COURSE GRADATION B
3 inch	100	
2 inch	65-95	
1½ inch	40-75	
1 inch		100
¾ inch	40-75	70-98
No. 4	22-45	36-60
No. 8	16-34	25-47
No. 30	8-22	12-31
No. 200	2-10	3-15

Source: Forest Service Standard Specifications for Construction of Roads and Bridges, 1979

SOP 202.03
EXAMPLE 1



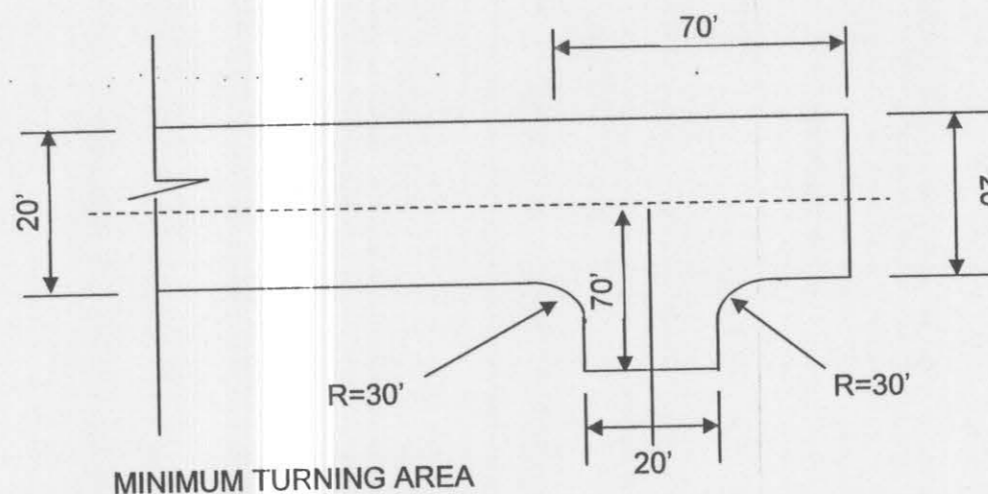
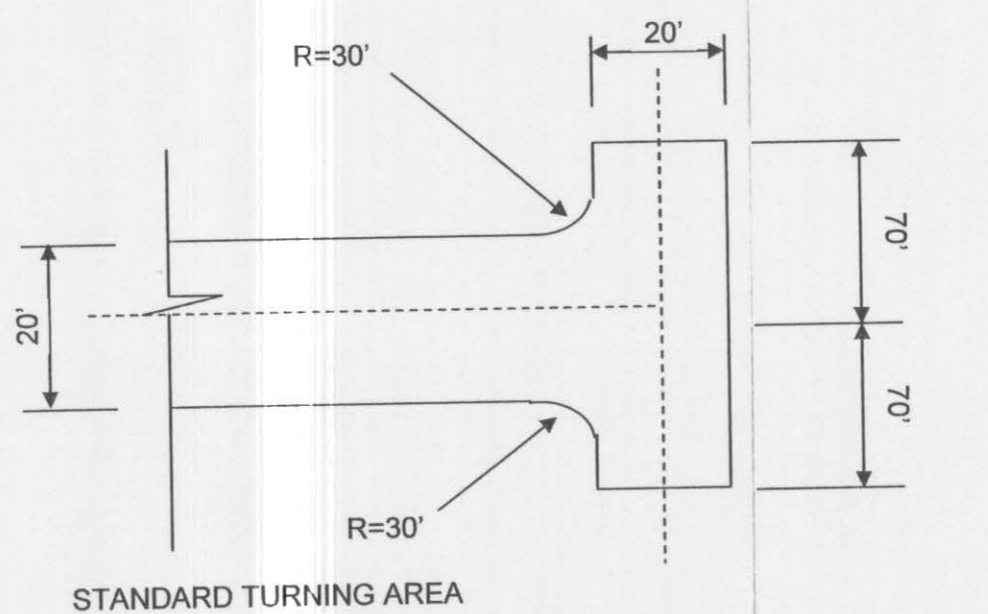
SOP 202.03
EXAMPLE 4



Each layer of aggregate shall be compacted to 95% of the maximum density as determined by AASHTO T99-70, standard proctor test. 11% max. grade 175' centerline radius Swale drainage
 This standard shall apply to all new accessways on private property that serve dwellings and storage buildings located farther than 150 feet from approved Fire Department vehicle access. Approval of construction under this standard is conditioned upon the following:

- The accessway shall be a dead-end with no street to street through traffic allowed.
- A fire vehicle turnaround shall be provided at the end of the accessway. Turnarounds shall be in accordance with the City Standards. Alternative turnarounds may be constructed in constrained topography with prior approval of the Public Works Director.
- Construction of the accessway shall not create drainage low spots or direct drainage onto adjoining properties.
- Reductions in the aggregate surface depth may be allowed if certified by a Professional Civil Engineer licensed to practice in Idaho.
- Asphalt material shall conform to City and ITD specifications.

CITY OF LEWISTON STANDARD DRAWING
 ALL-WEATHER AGGREGATE SURFACE FIRE APPARATUS ACCESS ROAD
 DWG. NO. PA-1
 APPROVED Timothy C. Homann P.E.



NOTE:
1. Residential use only.

CITY OF LEWISTON STANDARD DRAWING
 ALTERNATE TURNAROUND
 DWG. NO. PA-2A
 APPROVED Timothy C. Homann P.E.

EXAMPLE A:

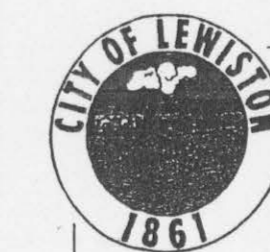
4322 GRELLE AVENUE
 ← FIRE ACCESS ROAD
 NO PARKING

4321 43RD STREET
 FIRE ACCESS ROAD →
 NO PARKING

EXAMPLE B:

END
 FIRE ACCESS
 ↓ ROAD

FIRE ACCESS ROAD
 NO PARKING
 DO NOT BLOCK



DEVELOPER'S CONTACT LIST

AIRPORT 406 BURRELL AVE.	ROBIN TURNER AIRPORT MANAGER	Phone # 208-746-3671 x 244 Fax # 208-798-0591
AVISTA 1330 FAIR ST. CLARKSTON	KENNY RAY CONSTRUCTION DESIGN REP	Phone # 208-798-1472 Fax # 208-798-1499
BUILDING - COMMERCIAL 215 D ST.	JERRY HUME BUILDING OFFICIAL	Phone # 208-746-1319 x 294 Fax # 208-746-5595
BUILDING - RESIDENTIAL 215 D ST.	DAN BARNETT BUILDING INSPECTOR	Phone # 208-746-1319 x 205 Fax # 208-746-5595
BUSINESS LICENSING 215 D ST	SUE GEHRKE BUSINESS LICENSING	Phone # 208-746-1319 x 256 Fax # 208-746-5595
CENTRAL ORCHARDS SEWER DISTRICT 1522 POWERS AVE.	BILL LARSON MANAGER	Phone # 208-746-9689 Fax # 208-746-9680
CITY WATER/SEWER	DAVE SLX SYSTEM MANAGER	Phone # 208-746-3671 x 262 Fax # 208-750-1924
ENGINEERING - COMMERCIAL 1134 F ST. - 2 ND FLOOR	SHAWN STUBBERS ASSISTANT CITY ENGINEER	Phone # 208-746-3671 x 290 Fax # 208-746-9667
ENGINEERING - RESIDENTIAL 1134 F ST. - 2 ND FLOOR	SHERRI KOLE ENGINEERING TECHNICIAN	Phone # 208-746-3671 x 259 Fax # 208-746-9667
FIRE 1245 IDAHO ST.	LINDA STEPUTAT FIRE MARSHAL	Phone # 208-743-3554 Fax # 208-746-3801
HEALTH DEPARTMENT 215 10 TH ST.	STEVEN GREGOR ENVIRONMENTAL HEALTH SPECIALIST	Phone # 208-799-3100 Fax # 208-799-0349
LEWISTON ORCHARDS IRRIGATION DISTRICT 1520 POWERS AVE.	BARNEY METZ MANAGER	Phone # 208-746-8235 Fax # 208-746-6484
CITY SEWER INDUSTRIAL PRETREATMENT 3106 N & S HIGHWAY	AL SINNER ENVIRONMENTAL PROGRAM SUPERVISOR	Phone # 208-750-1195 Fax # 208-750-1198
QWEST 528 6 TH AVE. LEWISTON	KIM BIGGS DESIGN ENGINEER	Phone # 208-798-0607 Fax # 208-746-7826
SANITATION 1134 F ST. - 2 ND FLOOR	SHAWN STUBBERS ASSISTANT CITY ENGINEER	Phone # 208-746-3671 x 297 Fax # 208-746-9667
ZONING - COMMERCIAL 215 D ST.	JOHN MURRAY PLANNER	Phone # 208-746-1318 x 250 Fax # 208-746-5595
ZONING - RESIDENTIAL	BRIAN DISCHIE	Phone # 208-746-1318 x 202

ELDRED ADDITION
 LEWISTON, IDAHO
 FIRE DEPT. DETAILS
 FIRE DEPT. NOTES

MACLINE
 ENGINEERING & DRAFTING
 "an affordable alternative"

4025 EAGLE COURT
 LEWISTON, IDAHO 83501
 PHONE (208) 746-8802
 FAX (208) 746-8805



NO.	DATE	BY	FILENAME	REVISIONS
1	7/25/03	CRF		REVISION PER FIRE DEPT. COMMENTS
0				ORIGINAL DRAWING

DRAWN BY: CRF
 CHECKED BY: CRF
 DESIGNED BY: N/A