



A Tradition of Stewardship
A Commitment to Service

CAL FIRE
NAPA COUNTY
FIRE DEPARTMENT

FIRE MARSHAL'S OFFICE
Residential Guidelines
Rebuild Requirements

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I. **SERVICE AREA**

Napa County Fire Department (NCFD)/CAL FIRE provides fire protection, emergency medical, rescue, and Fire Marshal services to the unincorporated areas of Napa County and the Town of Yountville.

II. **APPLICABLE CODES AND STANDARDS**

Title 24 2016 California Fire Code with local amendments
& 2016 California Building Code
Title 14 Public Resources Code (Including: PRC 4290 &
4291) Title 19 Health and Safety Code

Adopted Standards:

NFPA 13D, 13R-2016 Edition, Fire Sprinkler Systems for Residential Occupancies

NFPA 1142-2017 Edition, Water Supplies, Suburban and Rural Fire Fighting NFPA-22, 2013 Edition, Water Tanks for Private Fire Protection

III. **PLAN SUBMITTAL**

Fire plans shall be submitted to the Napa County Planning Building Environmental Services (PBES).

County Administration Building
1195 Third Street
2nd Floor
Napa, CA 94559
(707) 253-4417

Separate Fire Submittals (Fire Sprinkler, require two sets of plans submitted to the PBES for intake. *Building permit will not be issued until separate/fire plan sets are submitted.*

Information commonly excluded on plan sets:

1. Total square footage of buildings with identification of use and if the development is new or existing. **If destroyed by fire:** *identify original structure sqft. and proposed sqft. for new structure.*
2. Required information reflecting applicable codes and regulations to submittal.

3. Include information indicating if existing residence has fire sprinklers.
4. Indicate driveway widths/distances and slope percentages, either existing or proposed.
5. Show location/amount of fire water storage and location of hydrants/wet draft system. detail all components of the water storage system including water storage tank, piping size, type & routing, hydrants, and capacity dedicated to fire protection.

IV. ROADWAY/DRIVEWAY REQUIREMENTS

All Fire Department required access shall comply with the Napa County Road & Streets Standards. Refer to the Napa County Road & Street Standards for detailed information. The standards can be found online at the Napa County Planning, Building & Environmental Services – Engineering Division Forms & Documents. <http://www.countyofnapa.org/PBES/Engineering/>

Structures destroyed by fire:

Road and Streets Standards (RSS) Requirements

In addition to any applicable exceptions contained in Sections 3 and 5 of the RSS, rebuilds within Napa County will not be subject to current RSS requirements, if they meet the following two conditions:

1. *The replacement structure's livable space will not be greater than 125 percent of the original structure's livable space (based on square footage); and*
2. *The Napa County Fire Marshal determines the driveway was not a contributing factor in delaying or prohibiting emergency responders from accessing the original structure or for safe evacuation during the disaster.*

If both of these conditions cannot be met, then the rebuild shall be considered new construction and subject to the current RSS requirements.

Contact the Fire Marshal's office to have roadways evaluated.

Fire Department Access

1. A secure key entry system shall be required for all gates in Napa County.
2. The gate access Knox key switch is #3501 or #3502.
3. Ordering from Knox Co can be done via the KNOX website @ www.knoxbox.com or calling, 800-552-5669, use the department code #PS-01-0176-03-82 or specify **CAL FIRE/NAPA CO FIRE.**

V. FIRE PROTECTION WATER SYSTEMS

RESIDENTIAL WATER STORAGE & SUPPLY SYSTEM

Structures destroyed by fire:

Indicate on plan set location of municipal fire water/hydrant supply. If not within ½ mile by road from the building it is to serve, then a water system is required.

1. Water storage required for fire protection (fire flow) shall be in addition to the domestic use. Swimming pools and ponds may be an acceptable use for fire protection storage when approved.
2. Water storage to operate the sprinkler system shall be in addition to the amount required for fire flow.
3. Fire flow water storage shall be a **minimum of 2500** gallons for single family residences less than 6000 square feet. Over 6000 square feet refer to Table B105.2.
4. The water storage shall be delivered by either a wet draft hydrant or a pressurized hydrant.
5. Wet Draft Hydrant system piping shall be a minimum of 4" and shall be either C-907, CPVC (minimum Schedule 40) or ductile iron pipe. Pipe riser shall be ductile iron with a minimum 4-inch gate valve and 4½ inch national hose male outlet with cap and 2 ½ national hose reducer attached. The wet draft hydrant outlet must be within 24 inches to 36 inches above finished grade.
6. Wet Draft Hydrants shall be painted red and have 1 inch white letters posted on it to read: "**WET DRAFT**".
7. Hydrants shall be located no closer than 40 feet and no further than 150 feet from the residence or building.
8. The hydrant shall be located centered in a turnout area of a driveway and shall be within 5 feet to the edge of driveway. The fire hydrant turnout location shall be established in an area separate from the fire apparatus turn around. The fire hydrant turnout area is for fire apparatus to be parked during drafting operations and shall not interfere with the fire department access to and from the structure.
9. Where required, hydrants shall have vehicle impact protection.

VI. FIRE SPRINKLERS

Structures destroyed by fire:

All residential structures destroyed by fire are required to have fire sprinklers per NFPA standards. CFC 903.2.8

VII. DEFENSIBLE SPACE

Public Resource Code 4291, the California Fire Code and the Napa County Fire Hazard Abatement Ordinance require:

- 100 feet of defensible space around all structures.
- 10 feet of defensible space on each side of roads and driveways.

The guidelines can be found online at the Napa County Fire Marshal's Office webpage. <http://www.countyofnapa.org/firedepartment/>

New Construction

For new construction in the SRA, California Fire Code Section 4907 and the SRA Fire Safe Regulations (Title 14, Division 1.5, chapter 7, Subchapter 2, Section 1270) require:

- (a) All parcels 1 acre and larger shall provide a minimum 30 foot setback for buildings and accessory buildings from all property lines and/or the center of the road.
- (b) For parcels less than 1 acre, the local jurisdiction shall provide for the same practical effect.

WUI Standards

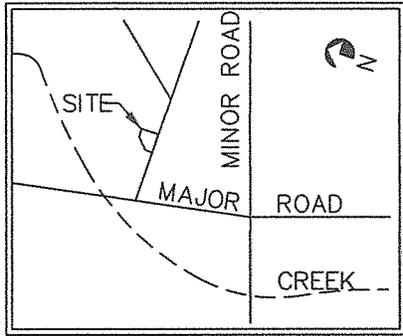
Structures built in fire hazard severity zones are required to comply with the ignition resistant construction requirements of the California Building Code, Part 2 Volume 1, Chapter 7A. *Chapter 7A of the building code is enforced by the Napa County Building Department.*

IX. CONTACT INFORMATION/LINKS

Napa County Fire Marshal's Office
1125 Third Street
Napa CA 94559

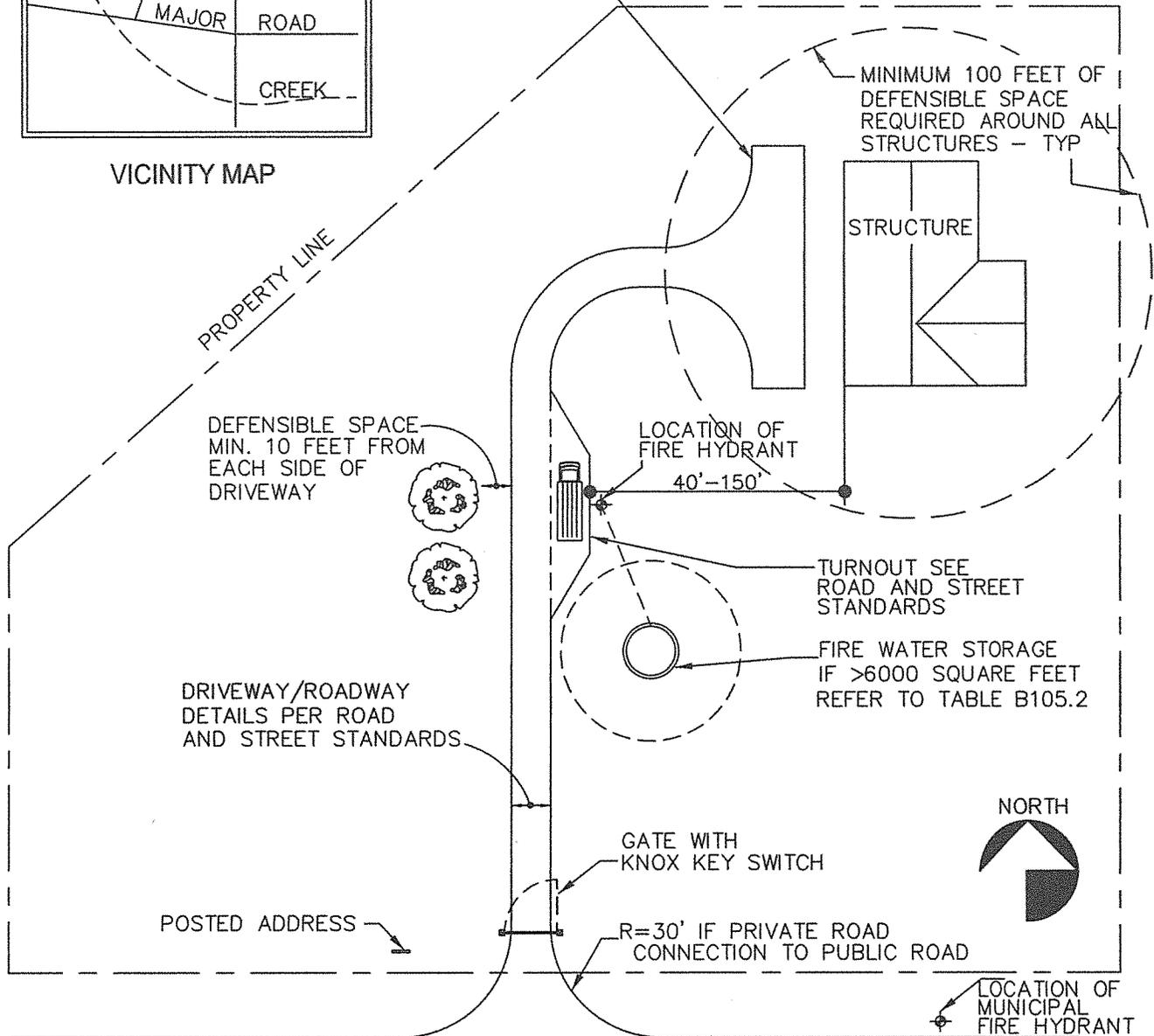
707-299-1464

<http://www.countyofnapa.org/firemarshal/>



VICINITY MAP

TURNAROUND LOCATED WITHIN 50.0' OF EACH STRUCTURE



ROAD NAME

RESIDENTIAL SAMPLE SITE PLAN

FIRE SAFE STANDARDS

CAL FIRE
Napa County Fire Department

DATE: FEBRUARY 2016

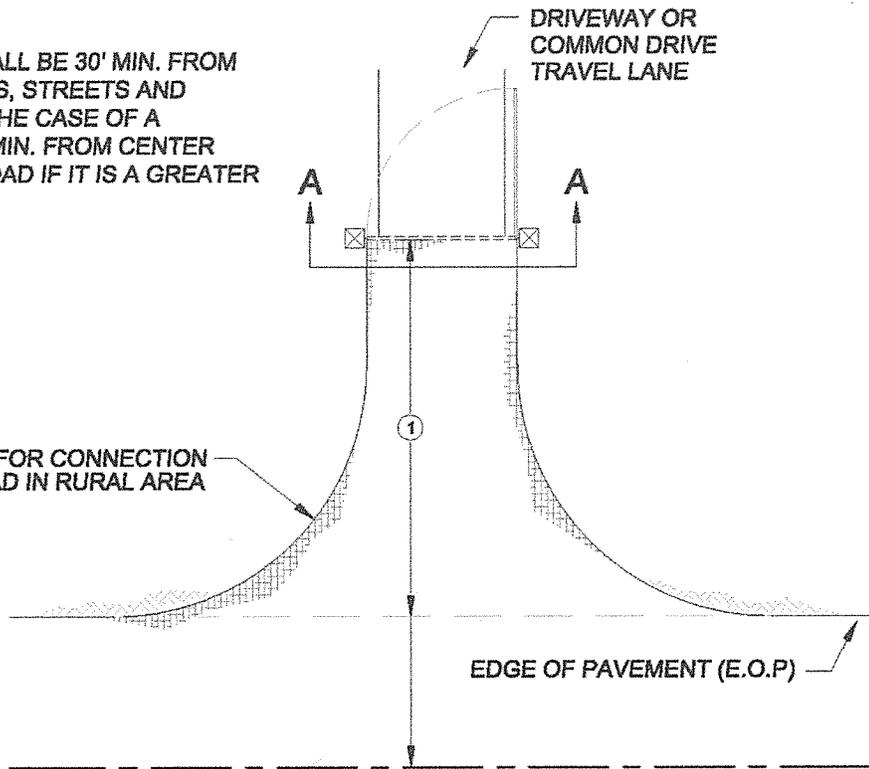
REVISED: 12/2017

APPROVED

D-11 GATED ENTRANCE

- ① GATE SET BACK SHALL BE 30' MIN. FROM E.O.P. OF ALL ROADS, STREETS AND DRIVEWAYS OR IN THE CASE OF A COUNTY ROAD, 42' MIN. FROM CENTER LINE OF COUNTY ROAD IF IT IS A GREATER DISTANCE THAN 30'.

SEE DETAIL P-2 FOR CONNECTION TO COUNTY ROAD IN RURAL AREA



NOTES:

1. FOR GATES THAT SWING TOWARD PUBLIC ROADWAY THE MINIMUM SET BACK SHALL BE A TOTAL OF THE SET BACK DISTANCE PLUS THE TOTAL WIDTH OF THE GATE PLUS 2 FEET.

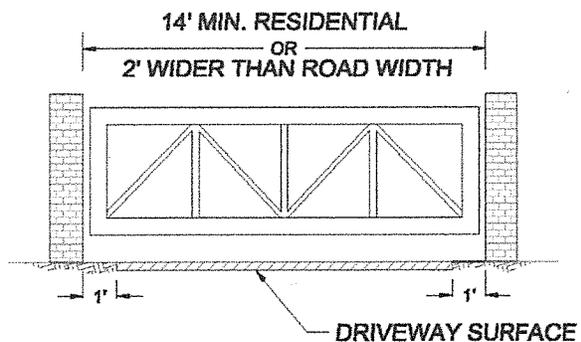
2. ALL GATES SHALL HAVE A FIRE MARSHAL APPROVED KEY ACCESS:

a) ELECTRIC GATES SHALL HAVE A KNOX KEY SWITCH MOUNTED TO ACCESS PANEL.

b) MANUAL GATES SHALL HAVE A KNOX PADLOCK INSTALLED.

3. FOR GATES THAT MEET SET BACK REQUIREMENTS AND ARE STILL IN THE COUNTY RIGHT-OF-WAY, THE PROPERTY OWNER SHALL OBTAIN A RECORDED ENCROACHMENT PERMIT FOR THE GATE STRUCTURE.

4. GATE SHALL PROVIDE FOR AN UNOBSTRUCTED VERTICAL CLEARANCE OF 15 FEET.



SECTION A-A

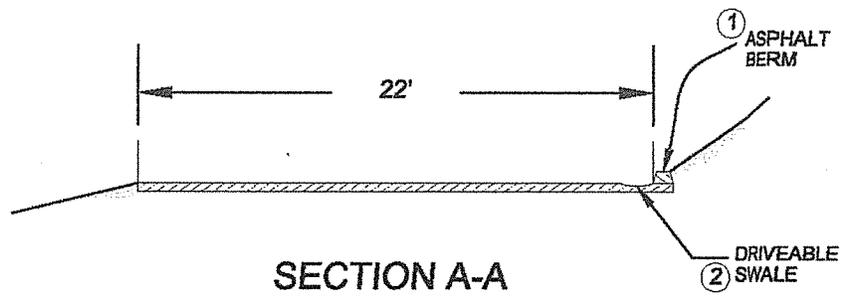
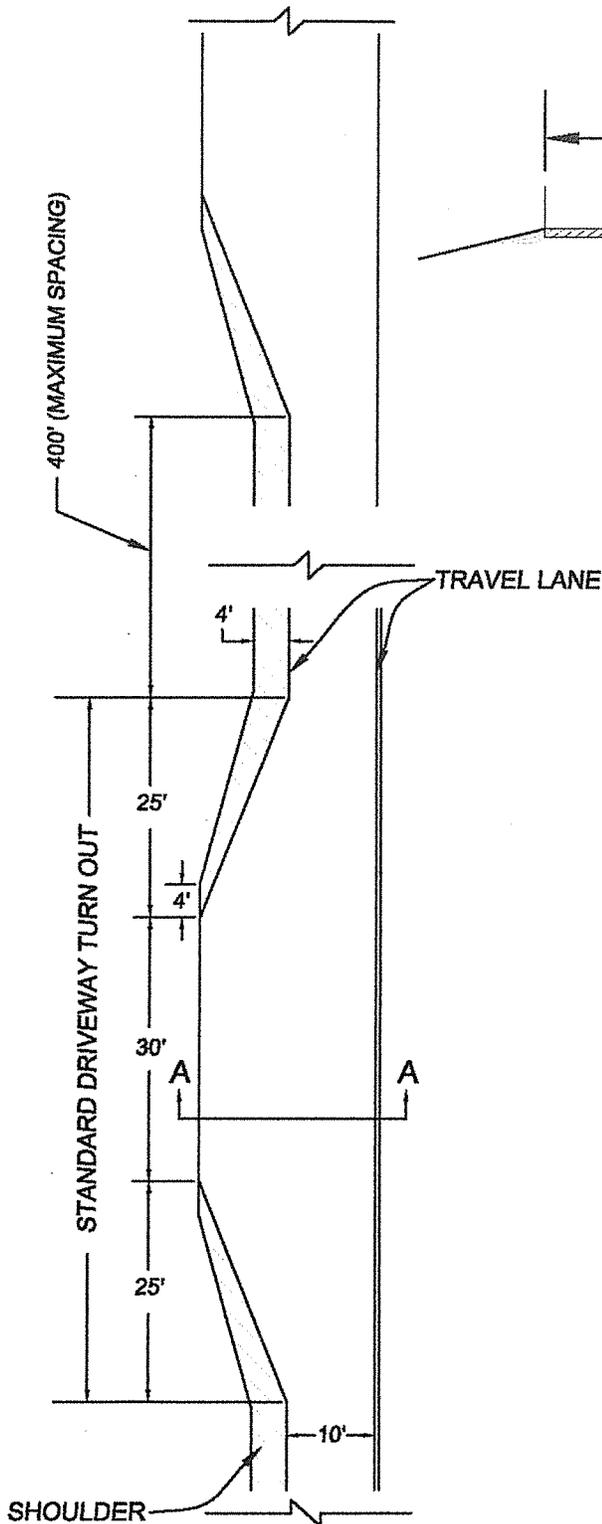
NOT TO SCALE

COUNTY OF NAPA
DEPARTMENT OF PBES

GATED ENTRY

North R. Galamb
ENGINEERING MANAGER RCE 57273

SEPTEMBER 2016



NOTES:

1. TURNOUTS SHALL BE SPACED A MAXIMUM OF 400-FT APART.

2. MULTIPLE TURNOUTS MUST BE INTER-VISIBLE TO SATISFY SPACING REQUIREMENTS UNLESS ALLOWED BY COUNTY ENGINEER AND FIRE MARSHAL.

① BERM REQUIRED WHEN FILL HEIGHT EXCEEDS 10 FEET OR IN CUT AREAS.

② A DRIVEABLE SWALE MAY BE USED AS PART OF TRAVEL LANE WHEN APPROVED BY COUNTY ENGINEER AND FIRE MARSHAL.

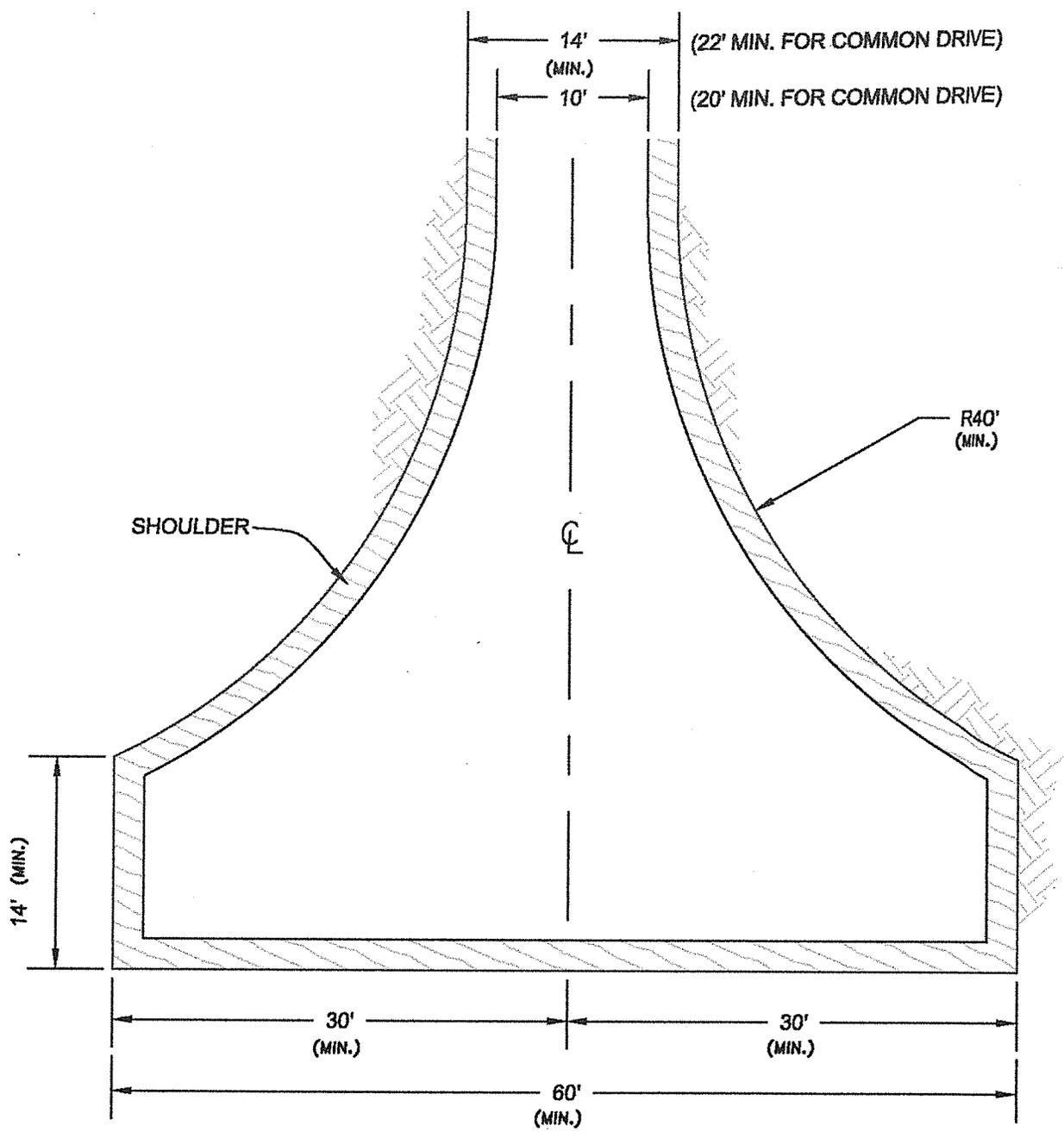
NOT TO SCALE

COUNTY OF NAPA
DEPT. OF PBES

STANDARD DRIVEWAY
TURN OUT

Nath. J. Galambos
ENGINEERING MANAGER RCE 57273

APRIL 2016



NOTES:
 1. TURNAROUND FACILITIES SHALL BE PROVIDED WITHIN 50 FEET OF BUILDING FOR FIRE ENGINES.

NOT TO SCALE

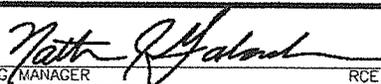
COUNTY OF NAPA DEPARTMENT OF PBES	
STANDARD HAMMERHEAD TURNAROUND	
	
ENGINEERING MANAGER	RCE 57273
APRIL 2016	

Table B105.2. Minimum Required Fire Flow, Flow Duration, and Storage Volume for Light Fire Hazard Occupancies including but not limited to Residential Occupancies.

For structures under 6,000 sqft. minimum 2,500 gallons. Structures above 6,000 sqft. utilize table B105.2.

Fire Area Light Fire Hazard Occupancy			Automatic Fire sprinkler Protection ²				
			Non-sprinklered		Sprinklered		
Type of Construction ³			Fire Flow Duration	Fire Flow	Storage Volume	Fire Flow	Storage Volume
I FR, II FR, II-1hr, III-1hr	II-N, III-N, IV-HT, V-1hr	V-N	Minutes	Gpm ⁴	Gallons ^{4, 5}	Gpm ^{4, 6}	Gallons ^{4, 5, 6}
16,800	13,300	12,600	60	200	12,000	200	6,000
25,300	19,970	19,000	60	300	18,000	300	9,000
33,700	26,600	25,300	60	400	24,000	400	12,000
42,100	33,250	31,600	60	500	30,000	500	15,000
50,500	39,920	37,900	60	600	36,000	500	18,000
58,950	46,550	44,200	60	700	42,000	500	21,000
67,400	53,200	50,500	60	800	48,000	500	24,000
75,800	59,850	56,900	60	900	54,000	500	27,000
84,200	66,500	63,200	60	1,000	60,000	500	30,000
105,300	83,100	78,950	60	1,250	75,000	625	37,500
126,300	99,700	94,750	60	1,500	90,000	750	45,000
147,400	116,350	110,500	60	1,750	105,000	875	52,500
168,400	132,950	126,300	60	2,000	120,000	1,000	60,000
189,500	149,600	142,080	60	2,250	135,000	1,125	67,500
210,500	166,200	157,900	60	2,500	150,000	1,250	75,000
231,600	182,800	173,670	60	2,750	165,000	1,375	82,500
252,600+	199,450	189,500	60	3,000	180,000	1,500	90,000
	216,050	205,250	60	3,250	195,000	1,625	97,500
	232,700	221,050	60	3,500	210,000	1,750	105,000
	249,300	236,850	60	3,750	225,000	1,875	112,500
	265,900	252,600	60	4,000	240,000	2,000	120,000
	282,550	268,450	60	4,250	255,000	2,125	127,500
	299,200	284,200	60	4,500	270,000	2,250	135,000

1 Fire area in sq. ft. (less than or equal to), for fire hazard occupancy types see Section A-III-A.5.2.1.

2 Approved automatic sprinkler protection throughout building in accordance with standards NFPA 13 or NFPA 13-R.

3 Types of construction based upon the Building Code.

4 Add 10% to fire flow and storage volume if separation between buildings is less than 20 feet.

5 Fire flow storage volume use shall be limited and dedicated to fire protection, see Section 903.3.1.

6 Fire flow and storage volume in sprinklered buildings is in addition to the water demand for the sprinkler system and in-lieu of outside hose stream demand allowance.

(Ord. No. 1350, § 14, 11-23-2010, eff. 12-23-2010; Ord. No. 1388, § 30, 12-17-2013, eff. 1-16-2014; Ord. No. 1399, § 14, 3-24-2015)