

# Fence and Wall Guide



**City of Boulder City**  
**Community Development Department**  
**Building and Safety Division**  
401 California Avenue  
Boulder City, Nevada 89005-2600  
702-293-9282 (Main Line)

## **Purpose**

This guide is intended to make your navigation through the process of obtaining a building permit and the construction of your project an enjoyable experience.

This guide is intended for all fences including wood, chain link, masonry, vinyl and any other materials

The sample plans and sample details contained in this guide are for your reference in creating your very own customized construction documents.

Copying of the sample plans and details onto your construction documents is prohibited by United States Copyright Law.

For additional information regarding this guide, or for guides for other project types, please visit our website at <http://www.bcnv.org.171/Building-Permit-Forms> or contact the Boulder City Building and Safety Division.

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## Introduction

A building permit is required for all types of fences including wood, chain link, masonry, vinyl and any other materials. A permit application and all applicable forms may be obtained in the Community Development Department in City Hall or on the City's website at [www.bcnv.org](http://www.bcnv.org).

**Exempt Permit Conditions:** Fences less than four feet (4') in height and retaining walls less than two feet (2') in height are exempt from building permits. However, a courtesy site plan review by the City Planner is recommended for any proposed fence.

## Submittal Requirements

### Contractors

Fence and wall permits for subdivisions under construction by a developer must be obtained by the appropriately licensed contractor.

Fence and wall permits in conjunction with a building or project may also be obtained by the general contractor of the building or project.

Contractors must identify their Nevada contractor license number and Boulder City business license number at the time of submittal.

Contractors may prepare plans for the project they are building, which must be indicated on the documents.

### Owner / Builders

Fences and wall permits for a single-family home occupied by the applicant and not offered for sale or lease may be obtained by the owner.

Owner / builders must declare the owner builder exemption at submittal.

Owner / builders may prepare plans for the project they are building, which must be indicated on the documents.

### Property Line Requirements

A completed "Property Line Agreement for Fences / Walls" with the affected neighbor must be submitted with the application.

As an alternate, a signed and sealed document prepared by a registered Nevada surveyor indicating that the footing is entirely on the applicant's property is acceptable. This document must be made available to the inspector at the time of the footing inspection.

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**City of Boulder City**  
**Community Development Department**  
**Building and Safety Division**  
 401 California Avenue  
 Boulder City, Nevada 89005  
 702-293-9282 (Main Line)  
 702-293-9392 (Fax)

## Property Line Agreement for Fences / Walls

*This form is to be completed by the neighbor adjacent to the proposed fence(s) / wall(s)*

### **Property A** – Location of Proposed Fence / Wall

Property Address: \_\_\_\_\_ BC NV 89005  
 Street Number Street Name City State Zip Code

### **Property B** - Information of Neighbor Adjacent to Proposed Fence/Wall

Owner's Name: \_\_\_\_\_

Property Address: \_\_\_\_\_ BC NV 89005  
 Street Number Street Name City State Zip Code

To Whom it May Concern:

I, the owner of **Property B**, do hereby grant the permit applicant for the fence/wall at **Property A**, permission to construct a new fence or wall, on or about, the property line which separates our Real Estate.

=> \_\_\_\_\_  
 (Signature) (Date)

### **Notarization**

State of \_\_\_\_\_

County of \_\_\_\_\_

This instrument was acknowledged before me on \_\_\_\_\_  
 (Date)

by \_\_\_\_\_  
 (Name of person making statement)

\_\_\_\_\_  
 Notary Public

Seal

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Community Development Department  
Building Safety Division  
401 California Avenue  
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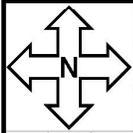
Main Line: 702-293-9282  
Fax: 702-293-9392

Website: <http://www.bcnv.org/171/Building-Permit-Forms>

# Building Permits

## Site Plan Form

(See reverse for checklist and sample)



Property Address: \_\_\_\_\_ Date Submitted: \_\_\_\_\_

***I certify that the above Site Plan is a true representation of this lot and accurately shows all dimensions, easements, and proposed and existing structures on said lot. Any deviation from this approved Site Plan may void the Permit.***

Signature of Owner/Builder or Contractor: \_\_\_\_\_

Form: BLD-003  
Revision: 04/28/2016

## Site Plan Checklist

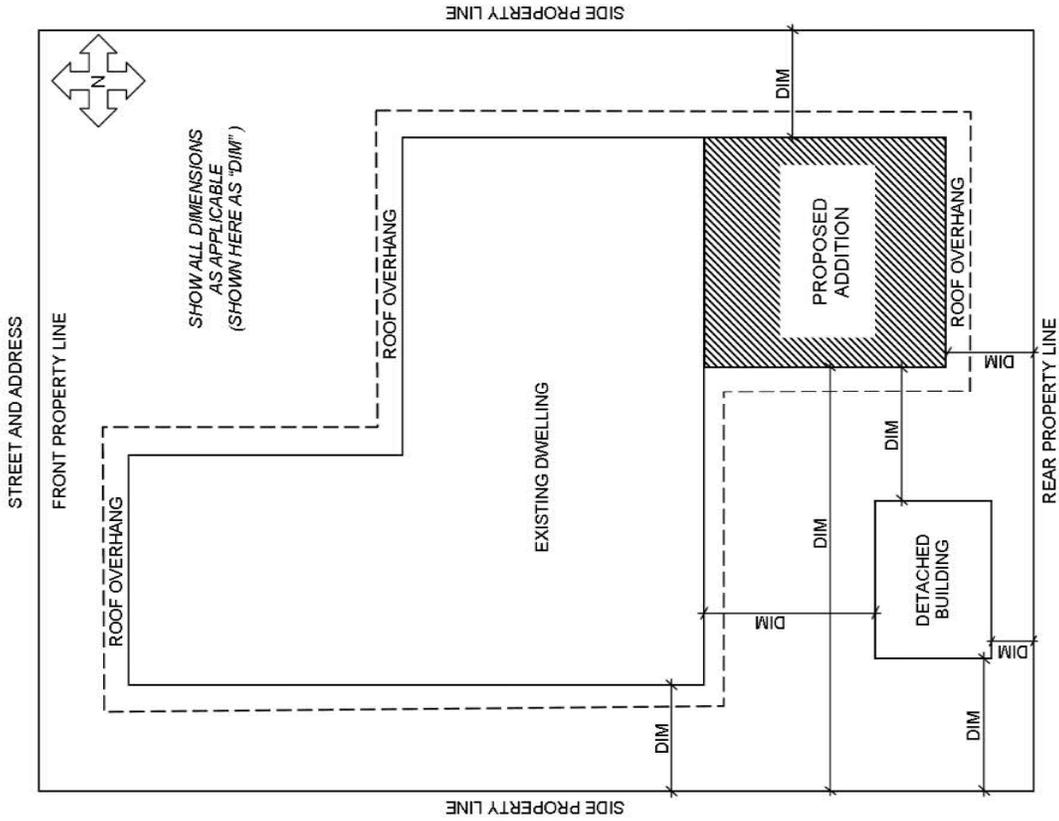
1.  Indicate all property lines with dimensions (front, sides, and rear).
2.  Indicate all streets and alleys.
3.  Indicate property address.
4.  Indicate properly oriented North arrow.
5.  Indicate all proposed structures and existing structures AND their dimensions.
6.  Indicate distances between structures AND distances between structures and property lines (setbacks — front, sides & rear).
7.  Indicate driveways and off-street parking areas.
8.  Indicate location of sidewalk with setback to fence.
9.  Indicate any structures to be removed or demolished.
10.  Indicate scale of drawing (example 1" = 10').
11.  Indicate all easements and utility locations.
12.  Indicate drainage inflow and outflow locations.
13.  Indicate water, sewer, and electrical points of connection and service routes.
14.  Indicate required parking, drainage, and grading (with reference to finish floor and adjacent streets).
15.  Provide 3 sets of plans and 2 sets of engineering documents, truss calculations, etc. (if applicable).
16.  Sign and date the Site Plan.

**All items must be indicated on the Site Plan before a plan review will be performed.**

**Fences, retaining walls, carports, and patio covers only require items 1-8 and 16.**

**(See separate form for swimming pools and spas)**

## Sample Site Plan



THIS IS ONLY AN EXAMPLE OF THE INFORMATION REQUIRED ON PERMIT APPLICATION DOCUMENTS. THIS IS NOT INTENDED TO BE A CONSTRUCTION DOCUMENT.

# Zoning Code Requirements

## For Residential Fences and Walls

This is a brief summary of zoning restrictions for fences and walls; the complete language is found in Section 11-20-4 of the Boulder City Code.

**Front Yards:** A fence, hedge or wall is allowed up to the following heights within the Required Front Yard area of a lot, which is the required front setback area as measured from the front property line:

**NOTE:** Your property line along the street is not necessarily located at the back of the sidewalk. In

Zone	Required Front Yard	Maximum Wall Height within Required Front Yard
R1-7, R1-8, R1-10, R1-15	20' from front property line	4' above grade
R1-20, R1-40, R1-80 ("B" Hill sub.)	20' from front property line	6' above grade
Mobile Home Park (rented lots)	8' from front property line	4' above grade
Mobile Home Estate (owned lots)	10' from front property line	4' above grade

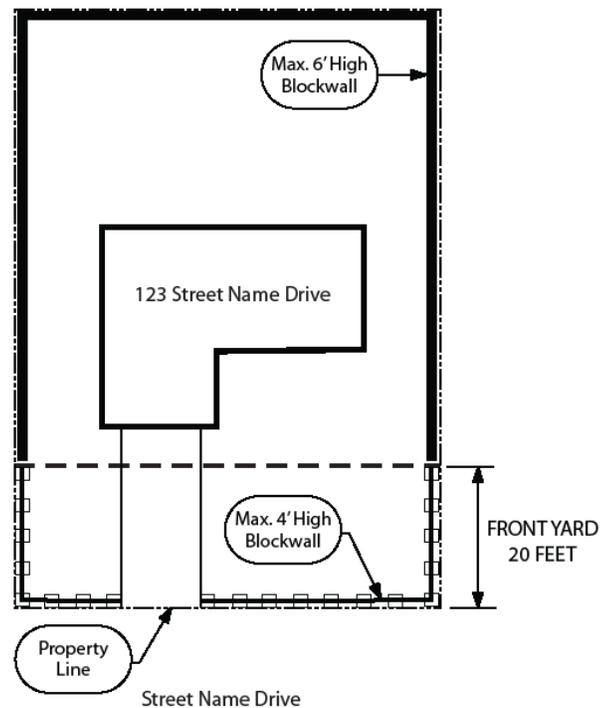
many neighborhoods the city right-of-way extends beyond the sidewalk for a distance (typically) up to 4'6" behind the sidewalk, or sometimes 9'6" back of curb if there is no sidewalk. To find out where your front property line is located, contact either the Community Development Department at 702-293-9282 or the Engineering Division 702-293-9200. Walls and fences are generally **not** allowed within the city right-of-way; requests about an Encroachment License may be made to the Engineering Division.

**Side and Rear Yards:** Beyond the required front yard, a fence, hedge or wall is allowed up to six feet (6') in height above grade in the R and MH zones.

### Corner Lots:

1. The front yard, per code, is along the SHORTER of the streets, regardless of what street is used for the address or which street your front door faces.
2. Fences, walls and hedges cannot exceed three feet (3') in height within the Sight Visibility Zone at an intersection. Contact the Engineering Division at 702-293-9200 regarding the location of the Sight Visibility Zone for your property.)

(Continued)



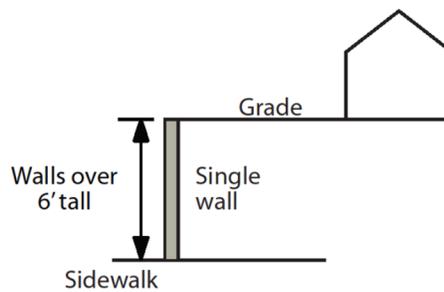
TYPICAL LOT

**Retaining Walls:** Retaining walls are not included in the measurement of wall height, except where facing public streets.

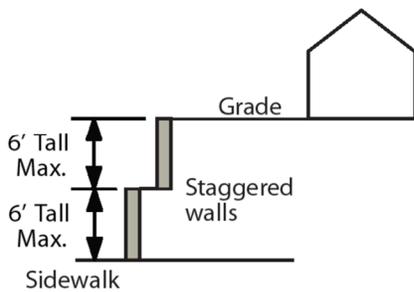
**Walls/fences facing public streets:** “Solid walls and/or fences which face public streets shall not exceed six feet (6') in height on the public street side. Multiple retaining/fence walls shall be permitted, provided no *single* solid wall exceeds six feet (6') in height on the public street side.”

The intent of this section of the code is to prevent very tall, monolithic flat walls facing public streets (more typical on hillside lots). When a tall retaining wall is needed (with or without a yard wall on top), the wall will need to be built in staggered segments, with each segment not exceeding 6' in height. When using multiple walls, there should be at least one inch (1") in depth between the wall faces. (A rockery wall using boulders automatically meets the intent of this requirement.)

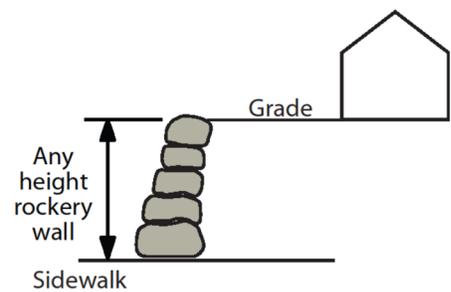
EXAMPLES:



**NOT PERMITTED**



**PERMITTED**



**PERMITTED**

**Miscellaneous Exceptions:**

1. An additional one foot (1') in height for decorative features such as lights or finials shall be allowed on top of columns (pilasters) within a required front yard and street side yard.
2. Regulations for tennis and sport courts are found under Section 11-20-4.B.4.b of the City Code.
3. Limited exceptions are permitted as per Section 11-32-13.B of the City Code relative to varying topography of a property.

# Suggested Construction of Various Types of Fences

## Wood and Vinyl

- Posts should be spaced no more than eight feet (8') on center
- Post hole depth to be a minimum of one third (1/3) the post height above grade
- Wood fences typically require a minimum of two (2) horizontal rails between the posts
- Wood fence posts require decay prevention where buried into the earth
- Vinyl fences require installation as per the manufacturer's installation instructions
- Footing and final inspections are required for wood and vinyl fences

## Chain Link

- Posts should be spaced no more than ten feet (10') on center
- Post holes required to be approximately eight to ten inches (8 - 10") in diameter
- Terminal post holes required to be ten to twelve inches (10 - 12") in diameter
- Post hole depth to be a minimum of one third (1/3) the post height above grade
- Post holes require back fill with concrete
- Footing and final inspections required for chain link fences

## Wrought Iron

- Post holes required to be a minimum of six inches (6") in diameter
- Post holes to be a minimum of twenty four inches (24") deep
- Post holes require back fill with concrete
- Footing and final inspections required for iron fences

# Construction of Various Types of Walls

## Rockery

Engineering and Special Inspection Requirements:

- Structural analysis required by Nevada registered engineer
- Geotechnical report required by a Nevada registered geotechnical engineer
- Special inspections required

## Segmental (also known as “stack block” and “landscape”)

Design and Inspection Requirements:

- Manufacturer’s installation instructions required
- May require structural analysis by Nevada registered engineer
- May require special inspection

## Concrete

Engineering and Inspection Requirements:

- Engineered design by Nevada registered engineer required
- Footing, reinforcement, damp proofing and final inspections required
- Special inspections may be required

# Concrete Masonry Unit (CMU) Walls

## Design and Inspection Requirements

- Southern Nevada Building Officials Regional Standards and Boulder City Standard Details may be used (see subsequent pages for Details)
- Engineered design by Nevada registered engineer may be used
- Footing, pre-grout and final inspections required
- Special inspections may be required on engineered walls
- Damp proofing inspections required for retaining walls

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- Pre-grout and final inspections required
- Property line agreement or survey required

SOUTHERN NEVADA BUILDING OFFICIALS  
REGIONAL STANDARDS

B-100-1  
02-01-2021  
PG. 1 OF 2

MASONRY FENCES

2018 IBC

**Clark County**  
Dept. of Building & Fire Prevention  
4701 W Russell Rd  
Las Vegas, NV 89118  
(702) 455-3000

**Boulder City**  
Building Department  
401 California Avenue  
Boulder City, NV 89005  
(702) 293-9282

**Henderson**  
Building & Fire Safety Dept.  
240 Water Street  
Henderson, NV 89015  
(702) 267-3650

**Las Vegas**  
Building & Safety Dept.  
333 N. Rancho Drive  
Las Vegas, NV 89106  
(702) 229-6251

REQUIRED INSPECTIONS: (SPECIAL INSPECTION - NONE REQUIRED)

1. FOUNDATION
2. MASONRY PREGROUT
3. FINAL

GENERAL NOTES:

1. ALL WORK SHALL CONFORM TO THE IBC 2018 EDITION AS AMENDED
2. CONCRETE BLOCK MASONRY SHALL COMPLY WITH THE FOLLOWING:
  - A. CONCRETE MASONRY SHALL CONFORM TO ASTM C 90, F'm = 1500 PSI MIN.
  - B. MORTAR: TYPE M - 2500 PSI OR TYPE S - 1800 PSI
  - C. GROUT CONFORMS TO ASTM C 476, MINIMUM 2000 PSI
3. THE ULTIMATE COMPRESSIVE STRENGTH REQUIRED FOR FOUNDATION CONCRETE SHALL BE OF 4500 PSI, TYPE V CEMENT, AND 0.45 WATER TO CEMENT RATIO.
4. ALL REINFORCING STEEL SHALL BE GRADE 60, ASTM A615, MIN. LAP SPLICE = 24"
5. NO WATER COURSE OR NATURAL DRAINAGE SHALL BE OBSTRUCTED.  
FOR RETAINING WALL, PROVIDE 1CF/FT OF CLEAN COARSE GRAVEL WITH 2" DIAMETER WEEP HOLES THROUGH THE WALL AND LINED WITH PVC PIPE AT 8'-0" O.C. ALONG WALL AND PLACED 3" ABOVE THE LOWEST ADJACENT FINISHED GRADE
6. SITE PLAN SHALL BE SUBMITTED FOR REVIEW BEFORE THE PERMIT CAN BE ISSUED
7. CONTROL JOINT SPACING AT 24 FEET (MAX). VERTICAL REBARS SHALL BE LOCATED WITHIN 16 INCHES OF THE END.
8. GROUT ALL CELLS CONTAINING REINFORCEMENT. LOWER STEM IS SOLID GROUTED.
9. 3 INCHES COVER FOR ALL REBAR IN FOOTING (TYPICAL UNLESS NOTED OTHERWISE).
10. WATERPROOF THE INSIDE FACE OF ALL RETAINING WALLS PER 1805.3 OF 2018 IBC.

DESIGN CRITERIA

2018 IBC WITH SO. NV AMENDMENTS

WIND LOAD

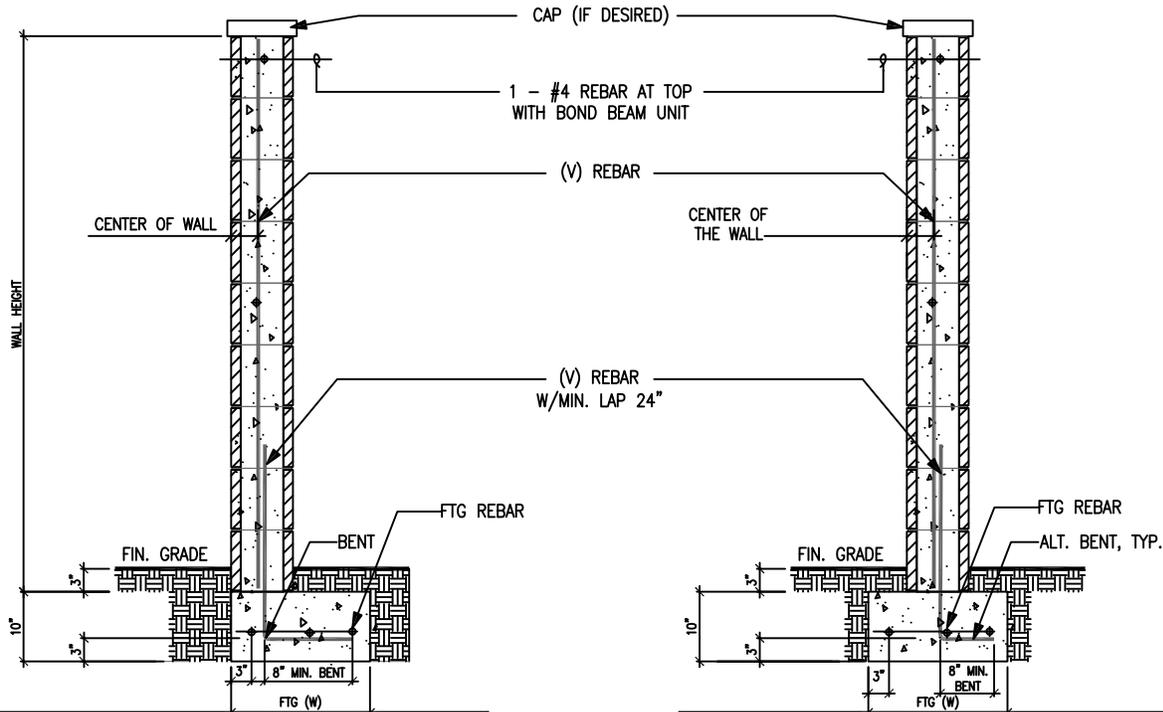
BASIC WIND SPEED = 95 MPH, EXPOSURE C  
Kz = 0.85  
Ke = 1.0  
Kzt = 1.0  
Kd = 0.85  
Cf = 1.4  
G = 0.85

SEISMIC LOAD

DESIGN SPECTRAL RESPONSE Sds = 0.574g  
SEISMIC COEFFICIENTS R = 1.25 (ASCE 7-16, T-15.4-2)  
Cs = 0.46  
SEISMIC LOAD DUE TO LATERAL EARTH PRESSURE =  $10.4h^2$  (LBS) THE POINT OF APPLICATION IS TAKEN AT 0.6H ABOVE THE BASE OF THE WALL, WHERE H IS THE HEIGHT OF THE BACKFILL

SOIL PARAMETER

SITE CLASS = D  
ALLOWABLE SOIL BEARING PRESSURE = 1000 PSF  
LATERAL EQUIVALENT FLUID PRESSURE OF 45 PSF/FT  
PASSIVE PRESSURE = 100 PSF  
COEFFICIENT OF FRICTION FOR SLIDING = .25



WALL SCHEDULE FOR WALL AT EDGE OF FOOTING				
WALL HEIGHT (FT)	4'-0"	6'-0"	6'-0"	8'-0"
CMU THICKNESS (IN)	6"	6"	8"	8"
(V) REBAR #4 @	48" O.C.	24" O.C.	24" O.C.	8" O.C.
FTG REBAR	2-#4	3-#4	4-#4	6-#4
FTG (W)	1'-9"	2'-9"	3'-0"	5'-0"

WALL SCHEDULE FOR WALL AT CENTER OF FOOTING				
WALL HEIGHT (FT)	4'-0"	6'-0"	6'-0"	8'-0"
CMU THICKNESS (IN)	6"	6"	8"	8"
(V) REBAR #4 @	48" O.C.	24" O.C.	24" O.C.	8" O.C.
FTG REBAR	2-#4	3-#4	3-#4	4-#4
FTG (W)	1'-6"	2'-0"	2'-3"	3'-3"

**Mesquite**  
Building Department  
10 East Mesquite Blvd.  
Mesquite, NV 89027  
(702) 346-2835

**North Las Vegas**  
Building & Fire Safety  
2250 Las Vegas Blvd. N  
N. Las Vegas, NV 89030  
(702) 633-1577

**Pahrump**  
Building & Fire Safety Dept.  
250 N Hwy 160 Suite #3  
Pahrump, NV 89060  
(775) 751-3373

**Clark County School District**  
Building Department  
1180 Military Tribute Place  
Henderson, NV 89074  
(702) 799-7605

MASONRY RETAINING WALLS

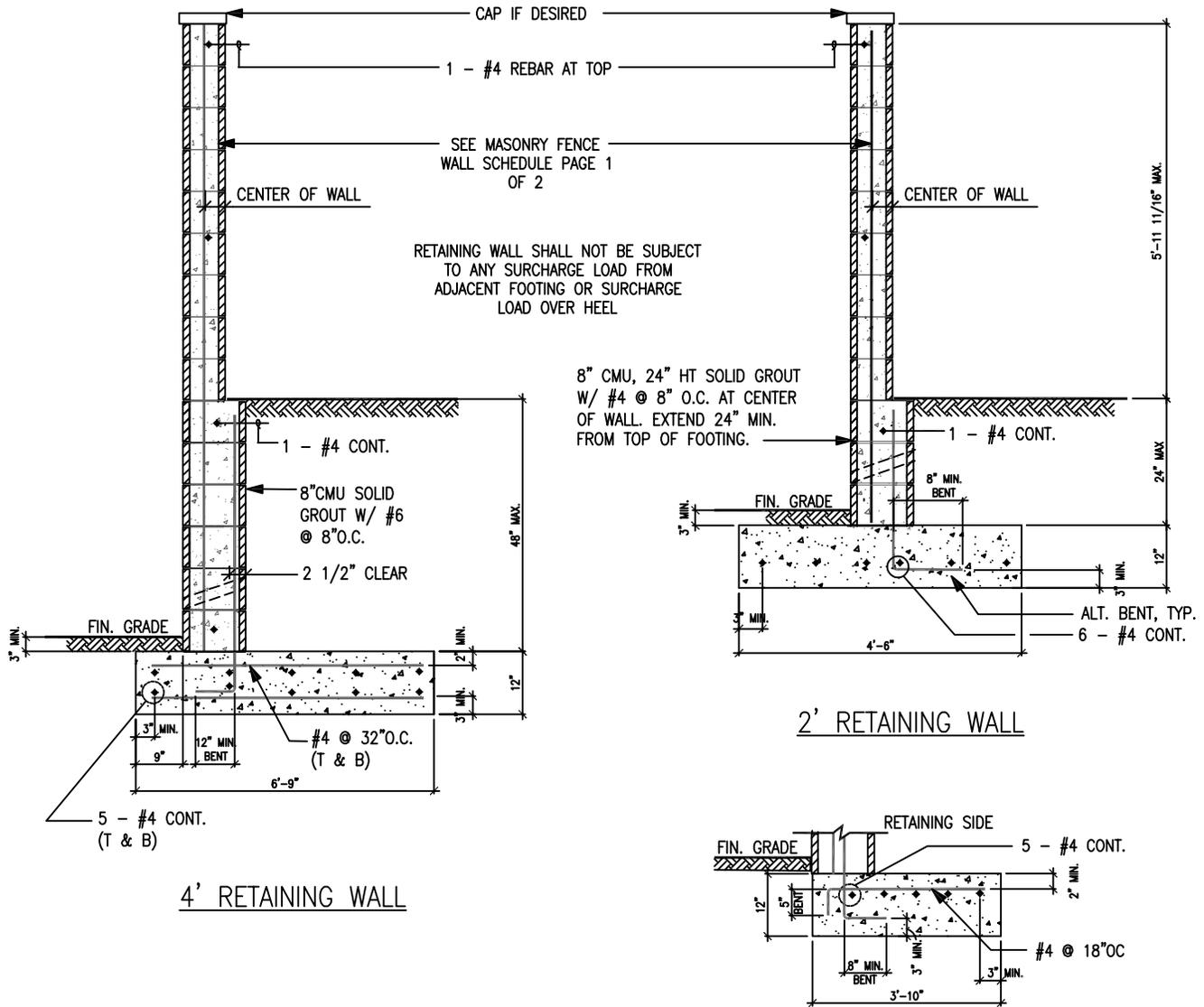
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N. Las Vegas, NV 89030  
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250 N Hwy 160 Suite #3  
Pahrump, NV 89060  
(775) 751-3373

**Clark County School District**  
Building Department  
1180 Military Tribute Place  
Henderson, NV 89074  
(702) 799-7605

## **Alternate Materials and Methods**

### **Engineering and Inspection Requirements**

- Rail road ties and various other items may be used on a case-by-case basis
- Engineered design by a Nevada registered engineer may be required
- Special inspections may be required