

**CITY OF SAINT LOUIS
DEPARTMENT OF PUBLIC SAFETY
BUILDING DIVISION
GUIDELINES FOR
DRAWING RESIDENTIAL RETAINING WALL PLANS**

The following form was prepared by the Building Division to be used only as a general guideline for the drawing of construction plans which are required to be submitted at the time of application for a building permit.

To make application for a building permit, the applicant shall submit five (5) sets of detailed construction plans drawn to scale on minimum 8 1/2" x 11" sheets of each of the following to the Building Division - Permit Section, Room 425, City Hall, between 8:00 a.m. and 4:30 p.m. Monday through Friday. The office is closed on all City holidays. One (1) set of photographs is required when: 1) located in a Historic District; 2) located within 300 feet of a park; 3) located within 300 feet of a Historic District or a landmark.

1. Site Plan
2. Typical Retaining Wall Section

The following are lists of the items that should be shown on each of the above plans: The illustrations are guides for plan preparation only to give you a basic idea what each type of plan should look like and are not necessarily specific Code and other Ordinance requirements. Each individual site location, the location of the building on the site and/or size of building might vary as requirements of the St. Louis Zoning Ordinance, the Building Code, and other ordinances dictate, and each will have to be reviewed on its own specific conditions after submittal.

1.0 SITE PLAN

- 1.1 Indicate size and shape of your lot
- 1.2 Indicate address and street (or streets if a corner lot)
- 1.3 Indicate alley location
- 1.4 Indicate size and location of existing house and other buildings
- 1.5 Indicate size and location of proposed retaining wall

2.0 TYPICAL RETAINING WALL SECTION

- 2.1 Indicate size of footing
- 2.2 Indicate depth of footing below finish grade line
- 2.3 Indicate type and width of retaining wall
- 2.4 Indicate height of retaining wall above finish grade line

Retaining Wall Guidelines

- 2.5 Indicate steps if applicable
- 2.6 Indicate guardrail type if applicable. Retaining walls more than four (4) feet in height are required to have a forty-two (42) inch high guardrail or other approved protective measure when closer than two (2) feet to a sidewalk, path, driveway or parking area on the high side.

3.0 ADDITIONAL DETAILS

- 3.1 Indicate whatever information is necessary to show how your proposal will be constructed

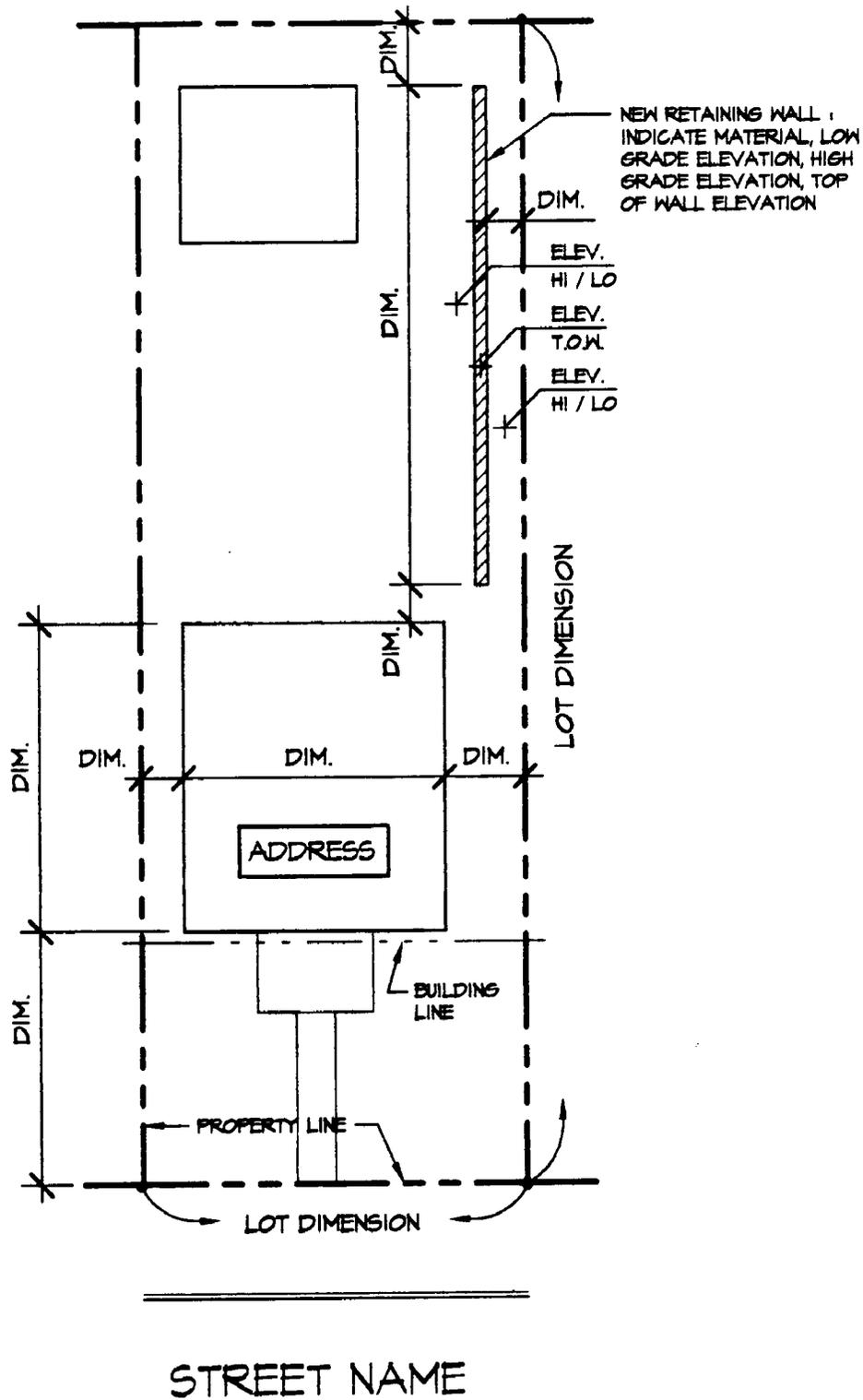
For additional information, contact Permits at (314) 622-3313.

4.0 GENERAL RETAINING WALL NOTES

- 4.1 A permit **is not required** for small residential retaining walls eighteen (18) inches or less in height and complying with the attached design criteria. **NOTE:** The retaining walls shall not be subject to any surcharge loading from steep slopes, driveways, swimming pools or other structures.

Effective Date
January 1, 2001

ALLEY



SITE PLAN

DENOTE SCALE

AGSITE

NORTH



(INDICATE ORIENTATION)

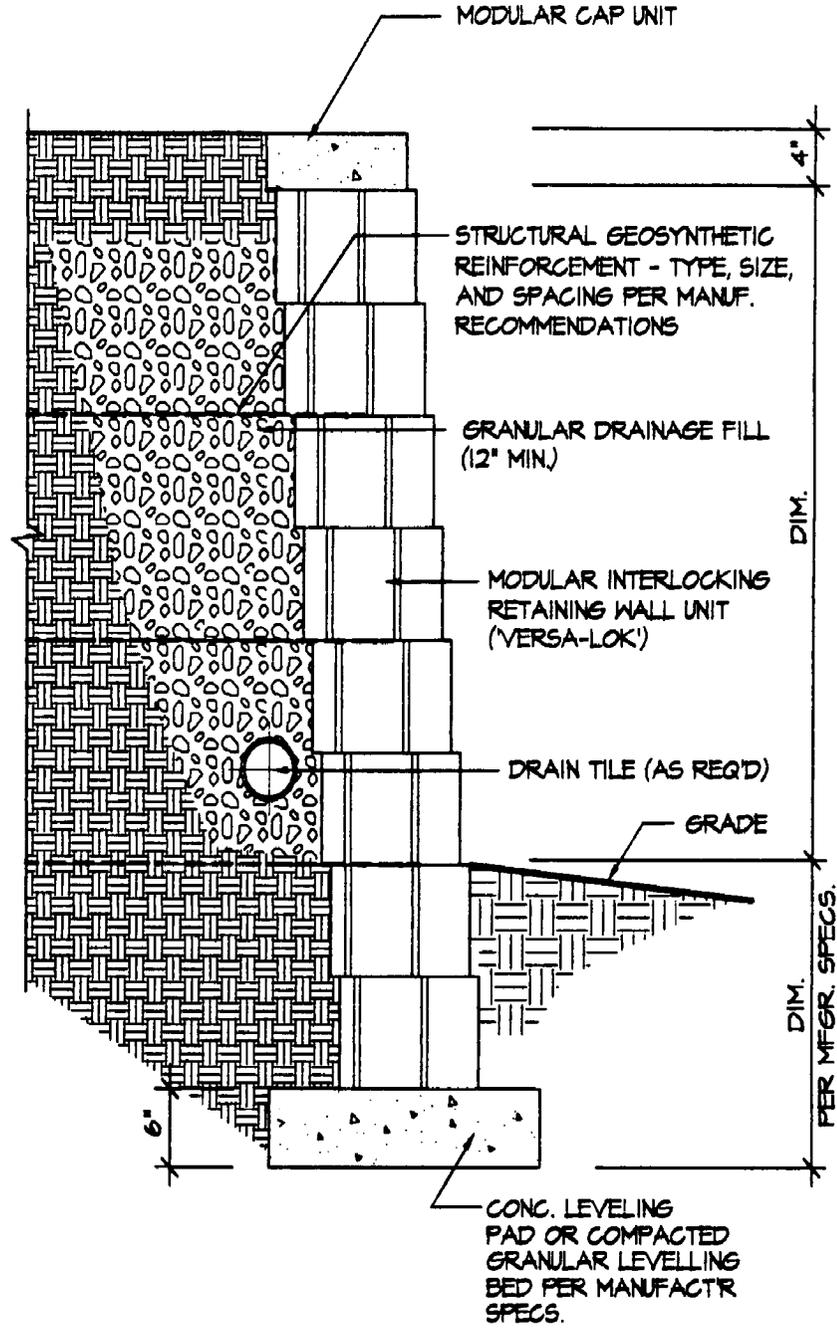
City of Saint Louis - Building Division
RESIDENTIAL RETAINING WALL
 Guidelines and Standard Construction Details

Date: Jan., 2001

Drawing No.

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RW-PG1



SECTION

3/4" = 1'-0"

RTWL1

(PRECAST MODULAR CONCRETE UNIT MASONRY)

RW-PG2

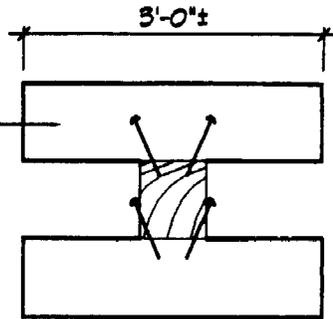
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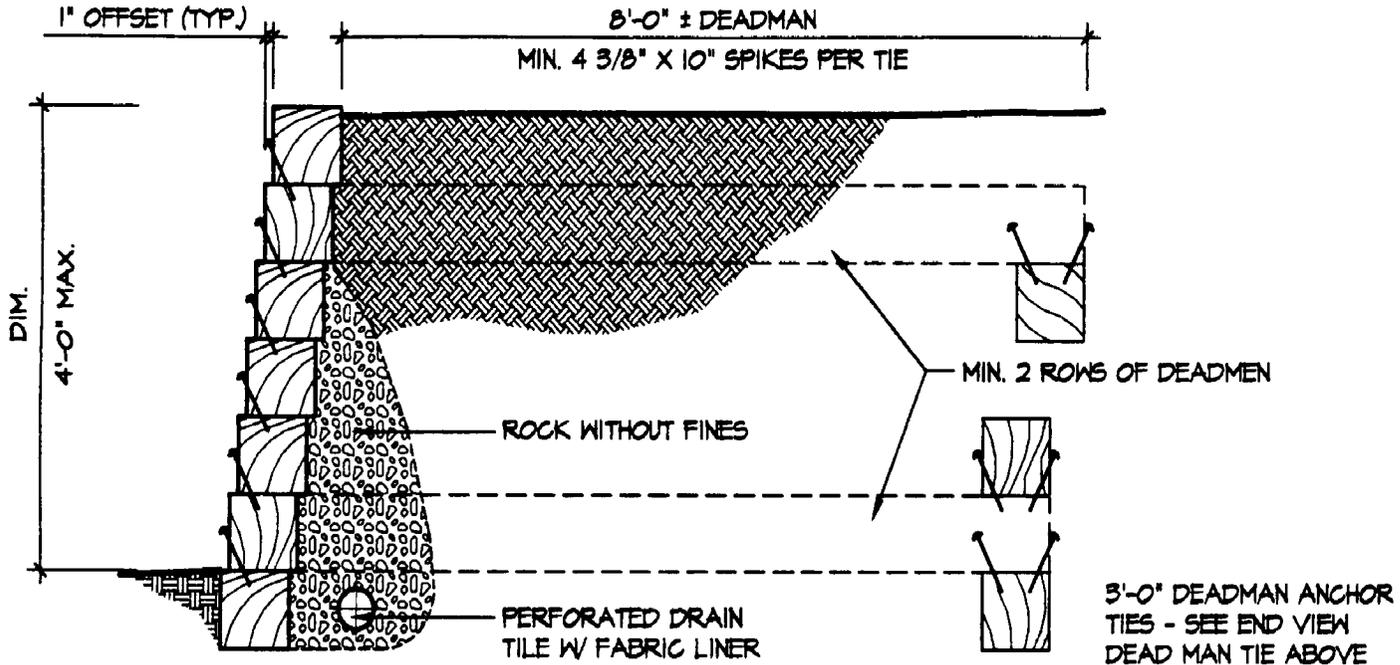
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ANCHOR TIES @ EACH DEADMAN



END-VIEW @ DEAD-MEN

RETAINING WALLS WHICH EXCEED 4'-0" IN HEIGHT OR ANY RETAINING WALL WHICH IS SURCHARGED REQUIRES DRAWINGS & CALCULATIONS PREPARED BY A MISSOURI LICENSED PROFESSIONAL ENGINEER



MAX. HORIZONTAL SPACING BETWEEN DEADMEN ONE (1) TIE LENGTH

GROUND CONTACT LUMBER MUST BE NATURALLY DECAY RESISTANT OR TREATED TO MEET STANDARDS AWPA LP22, LP33, LP44, OR LPTT

NOTE: DEADMEN MAY NOT CROSS OVER PROPERTY LINES ONTO NEIGHBORING PROPERTIES OR INTO CITY SIDEWALK AREAS OR PUBLIC RIGHT-OF-WAYS

SECTION

1/2" = 1'-0"

RTWL4

(RAILROAD TIE RETAINING WALL)

RW-PG3

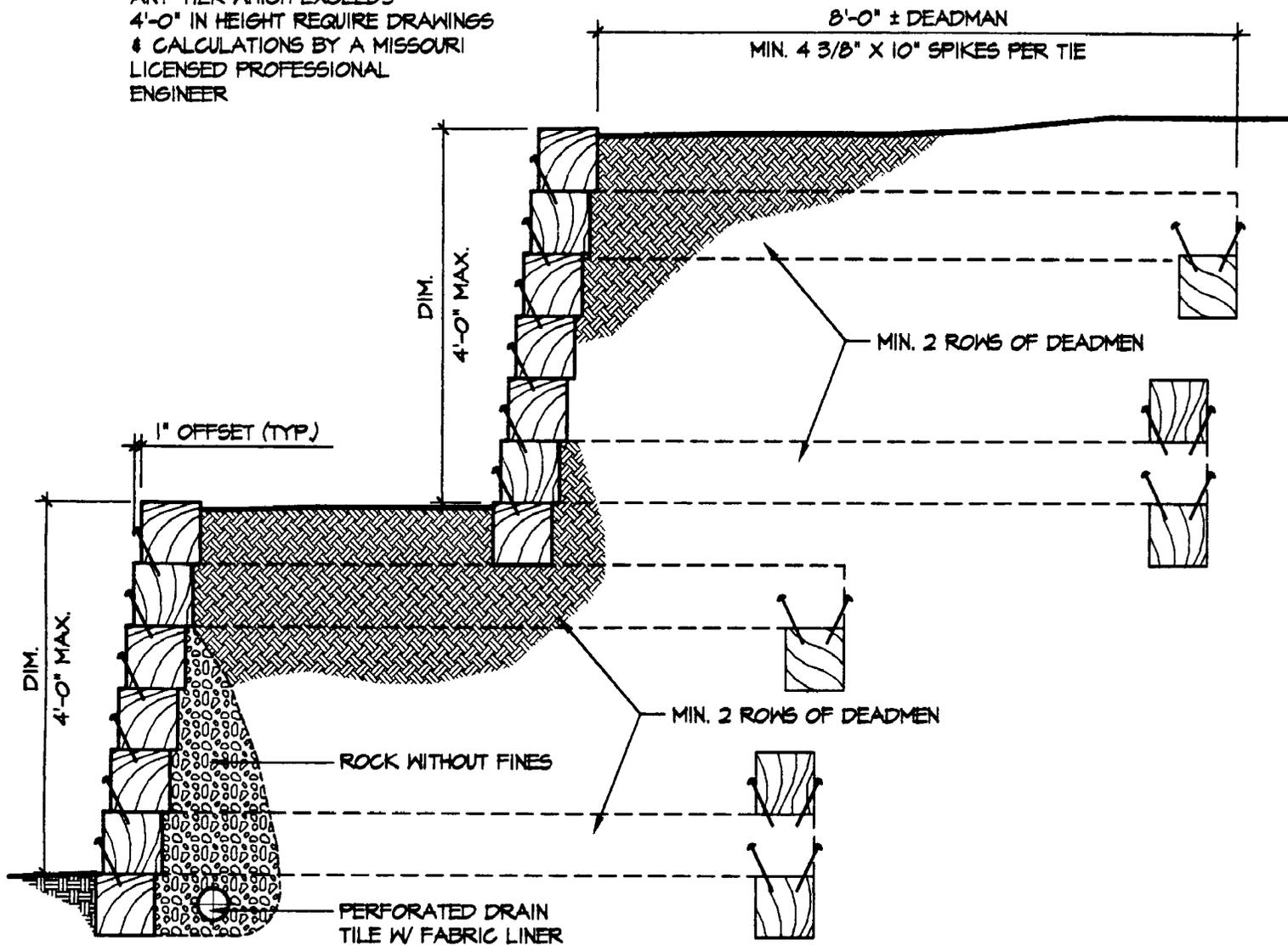
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RETAINING WALLS WHICH HAVE ANY TIER WHICH EXCEEDS 4'-0" IN HEIGHT REQUIRE DRAWINGS & CALCULATIONS BY A MISSOURI LICENSED PROFESSIONAL ENGINEER



MAX. HORIZONTAL SPACING BETWEEN DEADMEN ONE (1) TIE LENGTH

GROUND CONTACT LUMBER MUST BE NATURALLY DECAY RESISTANT OR TREATED TO MEET STANDARDS AWPB LP22, LP33, LP44, OR LPTT

NOTE: DEADMEN MAY NOT CROSS OVER PROPERTY LINES ONTO NEIGHBORING PROPERTIES OR INTO CITY SIDEWALK AREAS OR PUBLIC RIGHT-OF-WAYS

SECTION

1/2" = 1'-0"

RTWL5

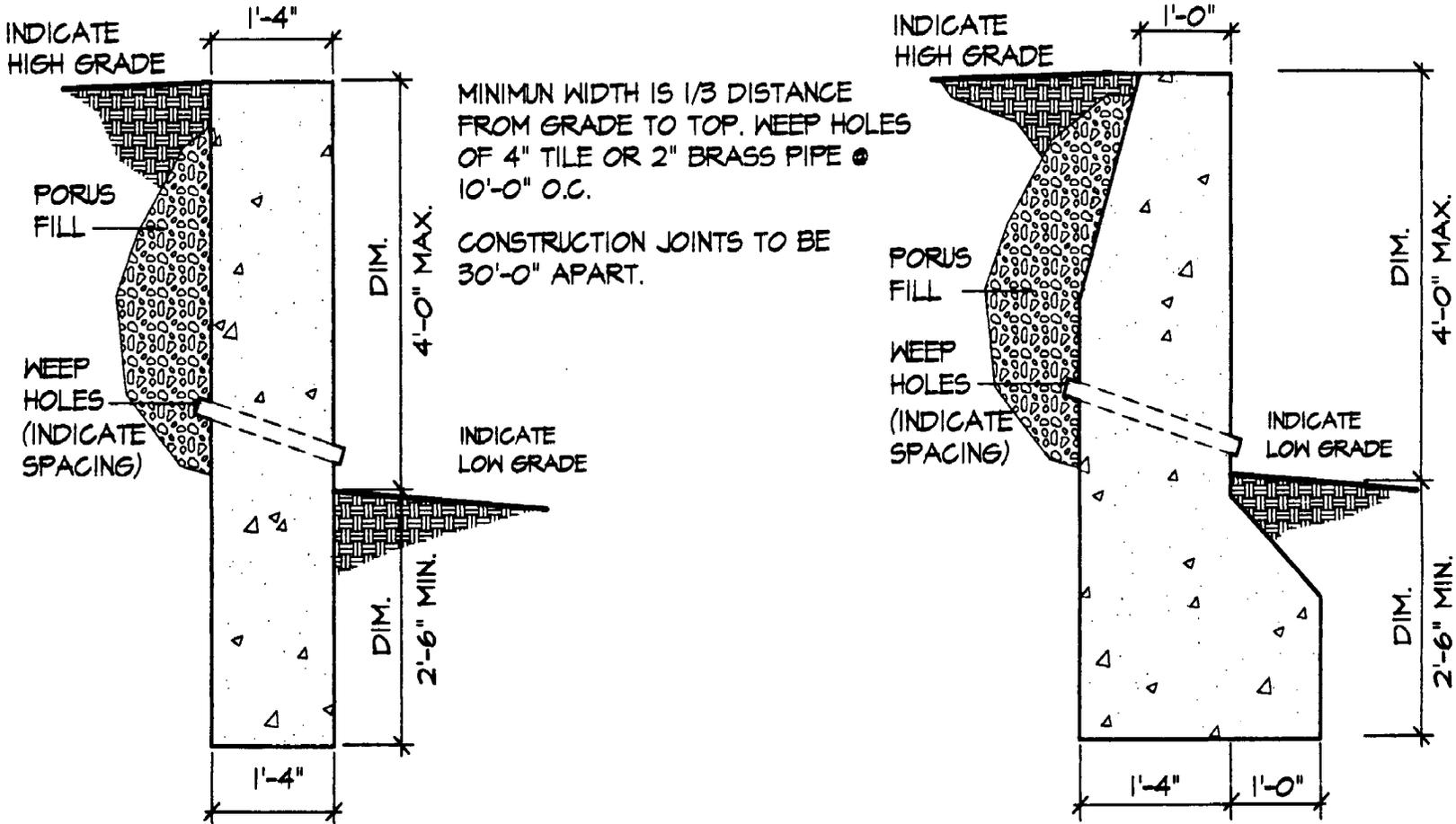
(2-TIER RAILROAD TIE RETAINING WALL)

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FOR RETAINING WALLS OVER 48" IN HEIGHT, MISSOURI LICENSED PROFESSIONAL ENGINEER'S SEAL IS REQUIRED ON PLANS WITH SEALED CALCULATIONS.

FOR RETAINING WALLS UNDER 30" IN HEIGHT, DEPTH OF FOOTING SHOULD EQUAL HEIGHT OF WALL.

SURCHARGED WALLS (GROUND SLOPES SHARPLY UP FROM WALL) SHOULD BE TREATED AS A WALL HIGHER THAN ACTUAL HEIGHT.

NOTE :

FOOTINGS MAY NOT CROSS OVER PROPERTY LINES ONTO ADJACENT PROPERTIES OR INTO CITY SIDEWALK AREAS OR PUBLIC RIGHT-OF-WAYS.

MASS CONCRETE RETAINING WALLS

SECTIONS

1/2" = 1'-0"

RTWL3

(MASS CONCRETE RETAINING WALLS)

RW-PG5

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Drawing No.

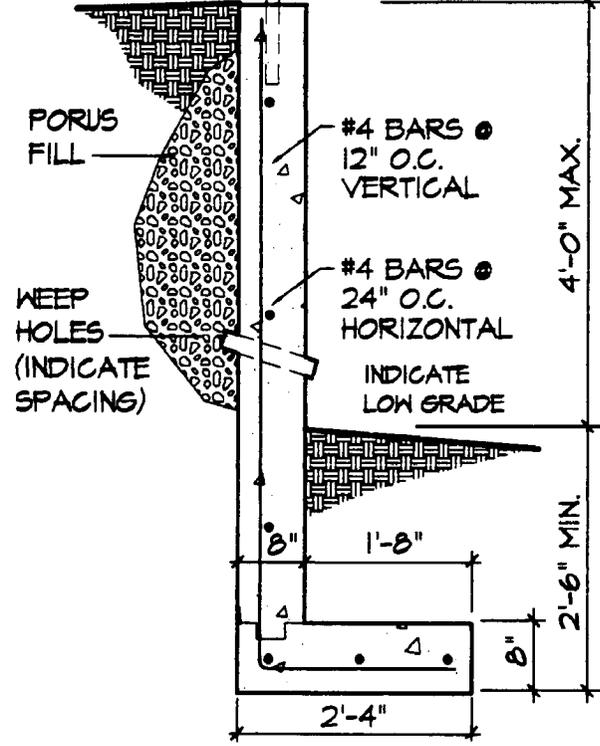
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NOTE FOR WALLS MORE THAN 4'-0" IN HEIGHT:

3'-6" H. FENCE OR GUARDRAIL* REQUIRED WHEN CLOSER THAN 2'-0" TO SIDEWALK, PATH, DRIVEWAY, OR PARKING AREA ON THE HIGH SIDE

* GUARDRAIL TO BE CONSTRUCTED OF APPROVED MATERIAL WITH NO CLEARANCES WITHIN RAIL EXCEEDING 21"

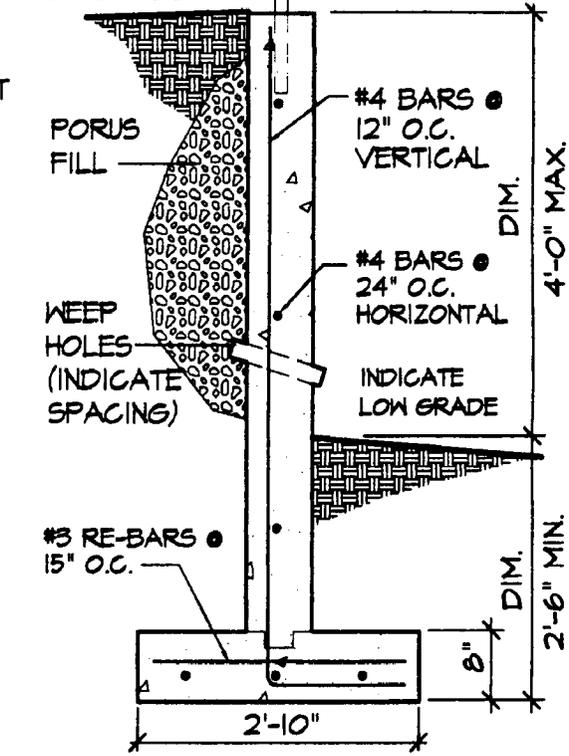
INDICATE HIGH GRADE



HORIZONTAL BARS TO PREVENT CRACKING TO BE 3/8" ϕ RODS @ 2'-0" O.C.

CONSTRUCTION JOINTS SHALL BE 30'-0" APART.

INDICATE HIGH GRADE



- FOR RETAINING WALLS OVER 48" IN HEIGHT, MISSOURI LICENSED PROFESSIONAL ENGINEER'S SEAL IS REQUIRED ON PLANS WITH SEALED CALCULATIONS.
- FOR RETAINING WALLS UNDER 30" IN HEIGHT, DEPTH OF FOOTING SHOULD EQUAL HEIGHT OF WALL.
- SURCHARGED WALLS (GROUND SLOPES SHARPLY UP FROM WALL) SHOULD BE TREATED AS A WALL HIGHER THAN ACTUAL HEIGHT.

NOTE :

FOOTINGS MAY NOT CROSS OVER PROPERTY LINES ONTO ADJACENT PROPERTIES OR INTO CITY SIDEWALK AREAS OR PUBLIC RIGHT-OF-WAYS.

SECTIONS

1/2" = 1'-0"

RTWL6

(REINFORCED CONCRETE RETAINING WALLS)

RW-PC6

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Drawing No.

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