

MOBILEHOME PARK UTILITY UPGRADE PROGRAM INSTALLATION AND INSPECTION GUIDELINES

The following installation and inspection guidelines (not intended to be all-inclusive) were developed for all parties to use when installing and inspecting utility upgrades as part of the Mobilehome Park Utility Upgrade Program (Program) within California mobilehome parks. The utility installations must be completed in accordance with several sets of standards, under different sets of laws and regulations (federal and state), as follows:

- Title 24, Code of Federal Regulations (24CFR), Part 3280: alterations to the manufactured home/mobilehome.
- 24CFR is available through the following link: <http://www.ecfr.gov/cgi-bin/text-idx?SID=d2883f7985936101ae79fa4d492a28df&mc=true&node=pt24.5.3280&rgn=div5>
- Title 25, California Code of Regulations (25CCR), Chapters 2 and 3 (as applicable).
 - 25CCR Chapter 2 is available through the following link: [https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I5D9B3380D45311DEB97CF67CD0B99467&originationContext=documenttoc&transitionType=Default&contextData=\(sc.Default\)&bhcp=1](https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I5D9B3380D45311DEB97CF67CD0B99467&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)&bhcp=1)
 - 25CCR Chapter 3 is available through the following link: [https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I1D6C3650EBF911E09DB1FA8A2A044D67&originationContext=documenttoc&transitionType=Default&contextData=\(sc.Default\)](https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I1D6C3650EBF911E09DB1FA8A2A044D67&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default))
- Title 24, California Code of Regulations (24CCR), Parts 3 (electrical) and 5 (plumbing).
 - 24CCR is available through the following link: <http://www.bsc.ca.gov/Codes.aspx>

CONTACT INFORMATION

Please submit questions and inspection requests to:
MHPUtilityUpgrade@hcd.ca.gov

Damia Crane
(916) 879-7924

MOBILEHOME PARK UTILITY UPGRADE PROGRAM PERMIT REQUIREMENTS

The Department of Housing and Community Development (HCD) has enforcement jurisdiction for 81 percent of the mobilehome parks in California. There are currently 70 active Local Enforcement Agencies (LEAs) enforcing the Mobilehome Parks Act (MPA) within their respective jurisdictions.

To identify the enforcement agency for a mobilehome park, visit the following website: <https://casas2prodwlex2.hcd.ca.gov/casas/cmipMp/onlineQuery>. A mobilehome park query can be completed on the HCD website (<http://www.hcd.ca.gov>) under “Online Services,” click on “Mobilehome and RV Park Search.”

Permit applications can be found on HCD’s website.

- Application for Permit to Construct (form HCD 50)
http://www.hcd.ca.gov/building-standards/manufactured-modular-factory-built/docs/Permit_to_Construct_HCD_50.pdf
- Manufactured Home Application for: Alteration, Addition or Conversion, Alternate Approval, Technical Services, or Inspection to Obtain Insignia (form HCD 415):
http://www.hcd.ca.gov/building-standards/docs/HCD415_Rev07-13.pdf

NOTE: Any person commencing construction without a valid permit shall discontinue the construction until a permit to construct is obtained, and shall pay double the fees prescribed for the permit (25CCR §1050).

PERMIT REQUIREMENTS FOR MOBILEHOME PARKS UNDER HCD ENFORCEMENT:

- Only one applicant per each permit.
- Permit applications and fees may be submitted to the appropriate HCD Area Office (Northern or Southern) in person or via mail. Permit applications are not accepted via email.
- Items not under the Program's purview may require additional permits from the enforcement agency.
- For beyond-the-meter (BTM) lot construction, one form [HCD 50](#) is required for the entire mobilehome park. The application shall indicate the number of lots, be accompanied by the appropriate fees, and must be signed by the mobilehome park owner prior to submitting the application to HCD.

Example of fee calculation: A 50 lot mobilehome park – \$196.00 (initial lot permit fee) plus \$178.00 (for each additional lot) multiplied by 49 lots totals \$8,918.00.

Fees for 50 lot mobilehome park:
 $\$196 + \$178(49) = \$8,918$

- The application may include other minor mobilehome park construction, including, but not limited to: reconnecting a clubhouse, well pumps, minor street lighting, boring, etc.
- A separate permit will be required for any extensive work, such as rewiring the entire mobilehome park's lighting systems.
- For work conducted to the manufactured home/mobilehome (MH-unit), one form [HCD 415](#) application shall include all homes in an individual mobilehome park. The permit shall be accompanied by the appropriate fees.

Example of fee calculation: 50 lot mobilehome park – 50 lots multiplied by \$196.00 totals \$9,800.00.

Fees for 50 lot mobilehome park:
 $\$196 \times 50 = \$9,800$

- For a 50 lot mobilehome park, permit fees will total \$18,718 (excluding additional park construction inspections as noted above).

Total fees for 50 lot mobilehome park:
 $\$8,918 \text{ (form HCD 50)} + \$9,800 \text{ (form HCD 415)} = \$18,718$

- A separate form [HCD 50](#) application, accompanied by a fee of \$196.00, is required to verify the removal of the aboveground portions of the legacy system.
 - The mobilehome park is responsible for the fee and it is not reimbursable through the Program.
 - Removal should occur within 30 days after the old system has been purged.

LOCAL ENFORCEMENT AGENCY (LEA) AND HCD COMBINED INSPECTIONS:

- Please contact the LEA for the necessary mobilehome park permits required for the pedestals and any on or underground work.
- LEAs are responsible for inspections relating to reconnecting common areas of the mobilehome park and verifying the aboveground portions of the abandoned legacy system that serve no utility purpose have been removed.
- LEAs may use the permit fee structure for BTM permits in “Permit Requirements for Mobilehome Parks under HCD Enforcement.”
- HCD is the only authority with jurisdiction for alterations to MH-units. MH-unit alterations require one form [HCD 415](#), which includes all MH-units within the individual mobilehome park. Please see form HCD 415 permit instructions in the section “Permit Requirements for Mobilehome Parks under HCD Enforcement.”
- LEAs are not to issue permits or perform inspections for MH-units or their connections to the new utilities.

GAS AND ELECTRICAL INSTALLATION AND INSPECTIONS RECREATIONAL VEHICLES (RV)/PARK TRAILERS IN MOBILEHOME PARKS

RV sections and RV lots within mobilehome parks are not a part of the Program. If the mobilehome park owner chooses to upgrade those systems, additional permit fees and inspections (not associated with the Program) will apply. Additionally, associated costs to the utility will be assessed and will not be reimbursable under the Program. If the mobilehome park wishes to convert RV lots into MH lots, it will need to submit a written approval from the local planning department and an amended Permit to Operate. Please note the Program will generally use the information provided by a mobilehome park on its California Public Utilities Commission (CPUC) Form of Intent it submitted in 2015. Therefore, if RV lots are converted to MH lots at this stage, they may not be included and covered under the Program. For more information on the Program’s applicability, please contact the CPUC at:

Phone: 1-800-755-1447

Email: MHPUtilityUpgradeProgram@cpuc.ca.gov

Website: <http://www.cpuc.ca.gov/mhpupgrade>

RVs, including park trailers (HSC §18009.3 defines park trailers as RVs), sited on an MH lot will have the lot utilities upgraded. BTM service will be extended within reach of the RV connections being served by the gas and/or electric master-meter system existing at the time of the upgrade. When the extensions are on or in the ground and not attached to the RV, only the extension will be tested and inspected by the enforcement agency, not the RV. If the extension is installed on the RV, HCD does not have the authority to inspect it.

For electrical, the RV must be able to be plugged into a receptacle. It cannot be hardwired and no RV should be equipped with more than one electrical supply cord.

RECREATIONAL VEHICLES (RV)

RVs are defined in HSC §18010. RVs may include a motor home, travel trailer, truck camper or camping trailer, with or without motive power, designed for human habitation for recreational, emergency or other occupancy. RVs are not intended for occupancy as a permanent dwelling. An RV meets all of the following criteria:

- It contains less than 320 square feet of internal living room area, excluding built-in equipment, such as wardrobe, closets, cabinets, kitchen units or fixtures, and bath or toilet rooms.
- It contains 400 square feet or less of gross area measured at maximum horizontal projections.
- It is self-propelled, truck-mounted, or permanently towable on the highways without a permit, and is built on a single chassis.

RVs constructed on or after January 1, 1999, but before July 14, 2005, must comply with the American National Standards Institute (ANSI) A119.5 standards. RVs manufactured on or after July 14, 2005 must be constructed in accordance with the NFPA 1192 standard. Compliance with these standards can be determined by an owner-provided label or insignia similar to those issued by the Recreational Vehicle Industry Association (RVIA) that is permanently affixed to the RV; however, an insignia issued exclusively by RVIA is not required (HSC § 18027.3). For more information regarding RVIA certification, see <http://www.rvia.org/>.

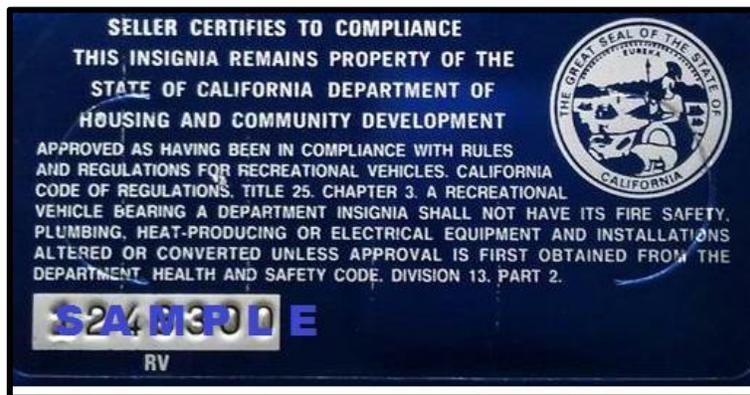
RVs generally may be occupied only in mobilehome parks or special occupancy parks governed by the MPA or the Special Occupancy Parks Act (SOPA), unless allowed by a local ordinance. HCD or an LEA, whichever has assumed MPA/SOPA enforcement authority, must ensure that any residential structures on an MH or RV lot comply with statutory construction and maintenance code requirements.

RVs, including park models/park trailers, occupied in the mobilehome park should have an insignia showing they are in compliance with ANSI A119.2 or A119.5. The insignia can be used to help determine whether or not the unit is a park trailer/park model or a mobilehome.

For information regarding a mobilehome insignia, please refer to the 2006 INSIGNIA OF APPROVAL INFORMATION BOOKLET.

RECREATIONAL VEHICLE (RV) INSIGNIA

If the unit pre-dates 1999, it may have an HCD insignia. "RECREATIONAL VEHICLE" is noted in the paragraph on the insignia.



Since 1999, the inspection program has been administered by RVIA. The most common insignia is the Recreation Vehicle Industry Associations (RVIA) insignia.



RECREATION PARK TRAILERS OR PARK MODEL RVS

All park model RVs were inspected by the Recreational Park Trailer Industry Association (RPTIA) up until 2012. In June of that year, RPTIA merged with RVIA, which now handles all the standards and inspections for park model RVs.



RPTIA

Old Recreation Park Trailer Seal



RVIA

New Recreation Park Trailer Seal

For additional information visit <http://www.rvia.org/>.

PARK TRAILERS/PARK MODELS

Park trailers are a type of RV (recreational vehicle defined in HSC §18009.3) and often are considered tiny homes built on a chassis with wheels. Park trailers, like RVs, are designed as temporary living quarters for recreational or seasonal use only and not as a year-round or permanent dwelling. Park trailers are constructed to ANSI A119.5 and NFPA 1192 standards and are certified by the manufacturer with a label of approval, such as those provided by the RVIA, or owner-provided. Park trailer standards are specified by state law and include, but are not limited to, the following requirements:

- It contains 400 square feet or less of gross floor area when set up, excluding loft area space, if that loft area space meets the requirements of HSC §§18009.3(b) and 18033. It may not exceed 14 feet in width at the maximum horizontal projection.
- It is built on a single chassis and may only be transported upon the public highways with a permit issued pursuant to Vehicle Code §35780.
- The loft area, in order to be excluded from the floor area standard, must meet all of the requirements of HSC §18033. Structures that may resemble park trailers, but exceed 400 square feet, are considered either an MH (if their design and construction are consistent with the U.S. Department of Housing and Urban Development's manufactured housing standards) or will be determined to be a nonconforming structure (for which occupancy is illegal) unless they meet other permitted standards approved by HCD.



Unless otherwise allowed by a local ordinance, park trailers may be occupied only in mobilehome parks or special occupancy parks governed by the MPA, HSC § 18200, et seq., and Title 25, CCR § 1000, et seq., or the SOPA, HSC § 18860, et seq., and Title 25, CCR § 2000, et seq. HCD or an LEA that has assumed enforcement authority must ensure that any residential structures on an MH/RV lot comply with statutory construction and maintenance code requirements.

COMMON AREA INSPECTIONS

HCD will inspect the common area connections only. No gas pressure test or continuity test will be performed. Common areas must be noted on the original form HCD 50 application in order to be inspected. HCD does not inspect cabins, hotels, motels, houses, or apartment units located within a mobilehome park, unless such unit is used to house park staff involved in the operation or maintenance of the park (25 CCR §18304).

Gas System Installation and Inspection

NOTES:

- The utility company is responsible for the equipment up to the meter. Neither HCD nor any LEA may issue permits or perform inspections for work up to the meter. It is the sole domain of the serving utility and is under the CPUC's jurisdiction.
- Piping installed on piers to extend the gas system, when necessary, must be made of steel approved for natural gas use.
- Unless otherwise specified in the code, the manufacturer's installation instructions must be followed. Manufacturer's installation instructions are required to be onsite at the time of inspection for the inspector.

Acceptable Materials When Trenching is Necessary (25CCR §1208):

NOTE: Trenching BTM is discouraged and shall be avoided unless necessary.

- Polyethylene (PE) pipe meeting the ASTM D2513-09a standards with an 18GA copper tracer line.
- Anodeless risers to transition from subsurface pipe.
- Subsurface gas pipeline facilities may not be located under structures or mobilehomes.
- Other approved materials deemed acceptable by HCD.

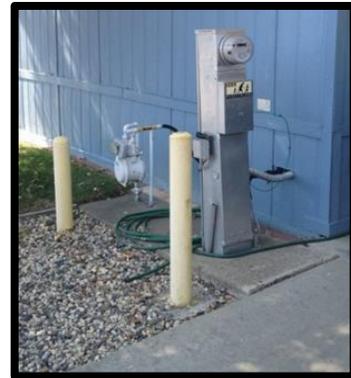
Line Size (25CCR § 1232):

- Aboveground use only - (Steel) 1-inch or by design (calculations may be required if less than 1-inch).
- Underground use only - (PE) 1-inch or by design (calculations may be required if less than 1-inch).
- Corrugated Stainless Steel Tubing (CSST) of 1-inch nominal diameter may be used for the extension of the MH-unit when closely routed against the underfloor of the MH-unit without additional calculations. CSST cannot be used as the required flexible connector.
- Copper pipe may **not** be used. If there is existing copper pipe, it must be replaced with approved gas pipe. Any copper pipe that does not have an internal corrosion resistant lining may not be used to carry gas that has an average hydrogen sulfide content of more than .03 grains/100 ft³ (6.9/m³) under standard conditions.

Standard conditions refer to 60°F and 14.7 psia (15.6°C and one atmosphere) of gas (24CFR §192.125).

Location (25CCR §1222 and 24CFR §3280.705):

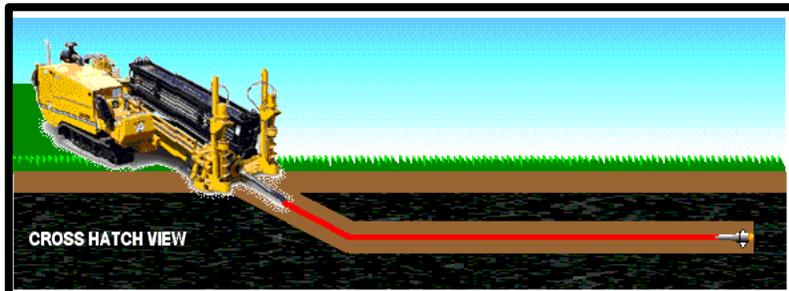
- Lot riser must be located outside the exterior wall within 4 feet of the MH-unit. The 4-foot range starts at the MH-unit exterior wall, not the outer wall of the structure. The use of CSST may be installed on the MH-unit provided it is closely routed against the frame or underfloor. It is not to be used in lieu of the approved flex connector. CSST is to be installed and supported in accordance with the manufacturer's installation instructions.
- When it is necessary for the gas system piping to be underground, as it relates to BTM work, the riser shall be protected from vehicular damage in a manner that meets that approved by the enforcement agency (25CCR §1228). The installation of the riser and any necessary bollards cannot impede reasonable ingress/egress, stairways, or driveway parking.



Beyond-the-Meter (BTM) Trenching When Necessary (25CCR §1216):

As previously noted, trenching BTM is discouraged and to be avoided unless necessary to make the extension.

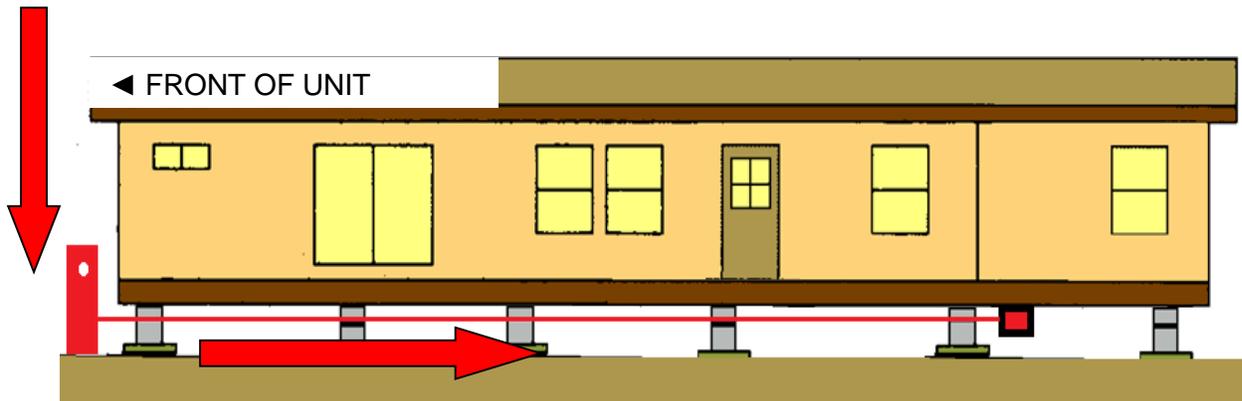
- The minimum cover required for gas piping laterals underground is 18 inches in depth, unless otherwise noted.
- The trench bedding must consist of a minimum of 3 inches of clean granulated soil or sand.
- Trench backfill must consist of 6 inches of clean compacted granulated soil or sand over the piping before the trench is backfilled with native soil.
- Piping BTM will be subject to the low pressure testing noted in #2 on the following page.



Inspection

The newly installed gas line will be tested only when it is connected to the existing system of the MH-unit. The approved manufactured home/mobilehome gas flex line needs to be in place when the test is conducted.

- Skirting must be removed sufficiently to be able to perform the inspection of the extensions on the home. Only enough skirting to visually inspect the pipe/conduit and supports needs to be removed; therefore, all of the skirting on one side is not required to be removed. Necessary skirting removal/repairs are part of the Program; excessive damage and full replacements are not covered. Prior to any skirting repairs are completed, discuss with the utility company(ies) the documentation of existing damage (prior to work) and expenditures for repairs of damages resulting from the work.

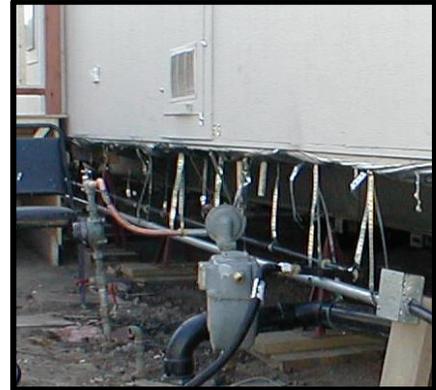


- The gas piping system BTM shall be subjected to a pressure test with all shut-off valves on the MH-unit in the open position (excluding, if applicable, a range with pilot lights).
- The test will be conducted with a manometer, slope gauge, or gauge (calibrated in inches of water or pounds per square inch (psi)). The test shall have consistent pressure, between 10- and 14-inch water column (6 ounces to a maximum 8 ounces), for not less than 2 minutes without perceptible leakage.
 - If necessary, testing may include a non-corrosive soapy water or bubble solution while pressure is remaining in the piping system (25CCR § 1362(c)(1)).
 - If BTM cannot be avoided when extending underground for gas runs, and the distance exceeds 50 feet, then it will be tested for no less than 10 to 15 minutes.

NOTE: The fuel-gas piping system of the MH-unit shall not be over-pressurized. If pressurization is beyond the maximum specified, the valves, regulators, appliances, etc. may be damaged.



- All steel gas piping shall be adequately supported by galvanized or equivalently protected metal straps, hangers, structural members, or other approved means at intervals of not more than 4 feet. Plumber's tape is an acceptable support strapping. If necessary for the extension to be on piers, the piers shall be located at no more than 4 foot intervals.
- When CSST is used, it shall be supported at intervals specified in the tubing manufacturer's installation instructions.
- When CSST is used, a steel pipe is required at the termination of the gas line inlet. It must be rigidly mounted to the MH-unit within 6 inches of its termination. There must be a transition to steel pipe in order to rigidly anchor the termination of the MH-unit's piping – the CSST manufacturer's termination flange often provides this anchoring.
- Steel piping extensions shall be rigidly anchored to the MH-unit within 6 inches of the gas inlet termination (24CFR 3280.705(l)(7)).



- Where the extension of the gas piping is supported by the MH-unit and crosses the centerline of the MH-unit, a flexible connector is not required at the centerline provided the piping is not rigidly mounted to the MH-unit.
- Each MH-unit shall be connected by a listed flexible gas connector approved for use on an MH-unit.
- If the rigid gas pipe connected to the flex line is exposed, the exposed portion of the pipe should be painted to avoid corrosion prior installing the gas meter.
- CSST shall not be used to connect the service outlet to the MH-unit inlet.
- No additional bonding or grounding for Wardflex black or yellow CSST is required when added to sections of an existing black iron pipe that is already properly grounded and bonded.
- Any new sections of CSST added to the system must maintain metal-to-metal contact with the existing system.
- If the contractor has not bonded the CSST by the method above, the bonding of the CSST needs to be completed and readily accessible to the inspector during inspection.
- **Always perform a continuity test between the CSST and ground.** (A continuity test at the end of the flex connector would suffice.)
- When the MH-unit successfully completes the gas test and is transferred to the new system, the previous gas inlet shall be permanently capped or plugged **under** the MH-unit.



- The serving utility is responsible for purging the legacy gas system after the mobilehome park's new system has been installed, approved, and cutover.
- After the gas system is purged, the mobilehome park should obtain a separate permit to remove the aboveground portion of the legacy gas and electric systems.
 - The removal of the aboveground portion of the legacy system shall occur within 30 days after cutover to the new system.

Although there are no specifications for depth, the equipment should be flush with the ground surface when removed.

Testing Certification

Once HCD approves the installation of the gas meter, the lot equipment is approved for service connection and an HCD approval label is affixed to the tested equipment in a visible location.



(Actual Size)

ELECTRICAL SYSTEM INSTALLATION AND INSPECTION

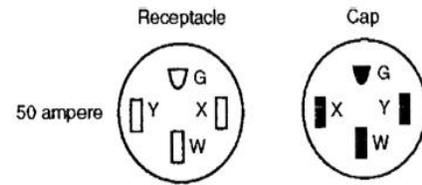
NOTES:

- The utility company is responsible for the equipment/conductors and their inspection up to the meter, not the enforcement agency.
- New conductors and pedestals must have a service load capable of 100 amperes (amps). The MH-units will not be upgraded as part of this Program. Future lot upgrades to the pedestal or MH-units will be at the mobilehome park or MH-unit owner's expense, respectively.
- Conductors shall be protected by overcurrent devices with a rating not greater than the rating of the conductors.
- MH-units that can reasonably be upgraded to 100 amps may have wire sizes for the extension capable of that load.

Acceptable Materials:

- Conductors – Reference the California Electrical Code (CEC) for proper sizes for a given wire type.

- Sch. 80 PVC conduit, with appropriately sized conductors, may be installed on the MH-unit for the extension of the electrical conductors.
- If a supply cord is used for MH-units with 50 amps or less, the cord must be approved for MH-unit use and the total length cannot be less than 21 feet nor greater than 36½ feet (24CFR § 3280.803).



Size:

- The conductor and conduit shall be sized appropriately for the application.
- Lot electrical service equipment must have a minimum of a 100 amp rating. However, the overcurrent protection may be less (e.g., 50 amps) to match the rating of the MH-unit.
- Extensions of the electrical conduit to the new location of the pedestal may carry additional wiring, (e.g., AC units previously attached to the existing pedestal or approved other loads), provided the conduit fill is not exceeded.

Location:

- Lot service disconnects shall be located within 4 feet of the exterior wall of the MH-unit (25CCR § 1184). The 4-foot range starts at the MH-unit exterior wall.
- With an HCD Alternate Approval, resident-owned mobilehome parks consisting of subdivided, fee-simple lots (a deed for the actual land under the MH-unit) may have electrical panels installed on the exterior wall of the MH-unit. These installations may cause the mobilehome park/resident to incur additional costs for installation by the contractor. A form [HCD 415](#) is needed.



BTM equipment subject to vehicular damage shall be protected by means of a bollard or other methods approved by the enforcement agency. The required working clearance from electrical equipment must be observed (25CCR § 1178). The installation of the riser and any necessary bollards cannot impede reasonable ingress/egress, stairways, or driveway parking.

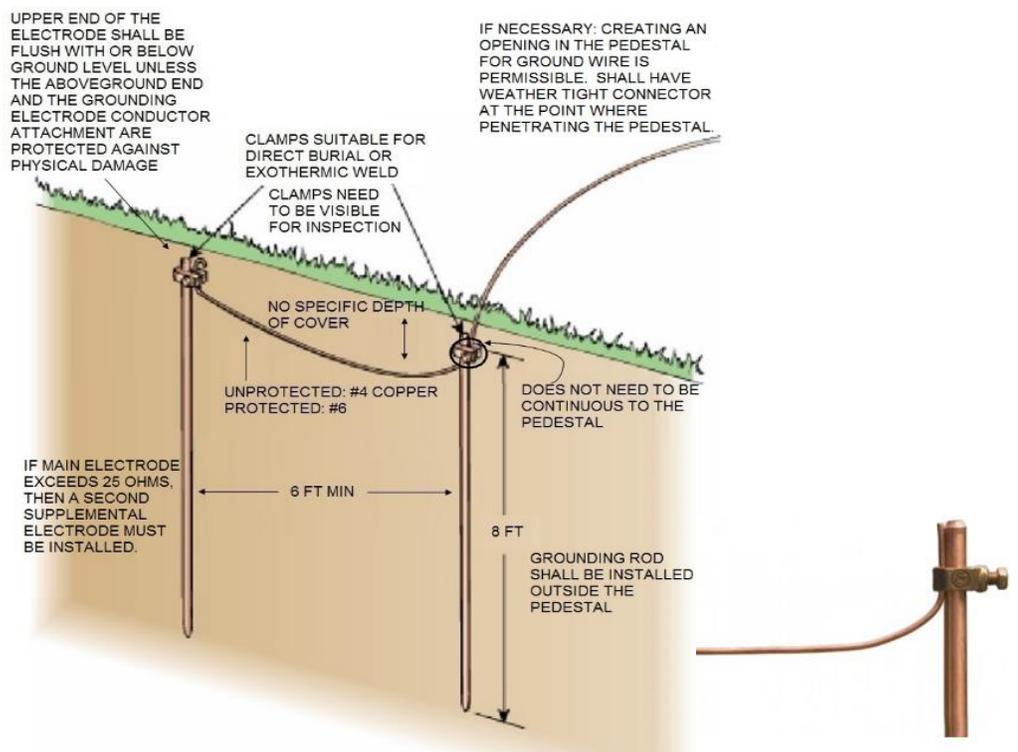


- Lot service equipment shall have a clear working space for examination, servicing, adjustment, or maintenance. The working space shall not be less than 30 inches wide and 36 inches deep and must have a clear height of 78 inches in front of any panel opening on the service equipment (25CCR § 1183).
- Self-supporting pedestals shall have a concrete encasement at its base of 3½ inches thick and extend 6 inches around the base of the pedestal (25CCR § 1182).
 - Asphalt is **not** an acceptable material for use as pedestal encasement because it has no rating and is not as strong as concrete.
- Pedestals shall be labeled with the corresponding lot number. Each circuit breaker shall be clearly labeled (25CCR § 1151).
- If the BTM extensions are on or above ground, the utilities' minimum radial clearances are not required. However, subsurface installations shall maintain a minimum 12-inch separation (25CCR § 1184; CEC Article 110.26).
- Lot service equipment shall be installed outside the pedestal and grounded by an approved grounding system in accordance with the CEC. The electrode conductor is to be installed as close as possible to the newly installed lot service electrical pedestal and may be installed as part of the support pad (25CCR § 1162; CEC Article 250.53(A)(2)).
- If an impedance of 25 ohms or less can be achieved, a single ground source may be utilized; otherwise, a supplemental grounding electrode is required pursuant to CEC Article 250.53(A)(2).
 - If resistance testing is used to qualify for this exception, random testing may be completed for the resistance of the general soil.

- The test locations should not exceed 100 feet from a previous test location. If any location tests above 25 ohms, testing of each site is required.
- A resistance testing log is required. The testing log must include the name of the individual who conducted the test and lots tested. The testing log must be provided to the inspector at the time of inspection and a copy sent to the utility upgrade email address.
- The log and ohm tester need to be onsite on the day of inspection
- The enforcement agency reserves the right to retest any location during inspection to verify the results.

NOTE: This process applies to HCD-enforced mobilehome parks only. Please work with the LEA regarding their requirements.

- Units with 30 amp cords must remain 30 amp.
 - 30 amp units are typically only 120 volts.
- A power supply “cord” is not required. One MH-unit may be hardwired all the way to the distribution panel regardless of its amperage.
- RVs on MH lots **must** be cord plug connected.
- Grounding conductors must be installed in an approved conduit or must be #4 copper (25CCR § 1166).
- When two grounding electrodes are required, the conductors between grounding electrodes must be either #4 copper or, if smaller, be encased in protective coverings approved for direct ground contact.
- There is no minimum depth of cover for the wiring between the grounding electrodes.



AC DISCONNECT (24CFR § 3280.813)

- The AC wiring may be installed in the same conduit as the extended line, provided the conduit fill is not exceeded.
- If the AC unit was connected to the MH-unit's distribution panel and exceeded the MH-unit's rating (e.g., the AC is 50 amp and the MH-unit is 50 amp), it is not allowed and cannot be reconnected. However, it may be connected under a separate permit.
- If a legally installed AC unit does not have a positive disconnect switch because it was originally installed in line-of-sight to the pedestal, it does not require a positive disconnect switch if connection to the new pedestal is maintained in the line-of-sight.
 - If line-of-sight no longer exists due to the **new** pedestal location, then the Program will cover the costs of a positive disconnect switch near the AC unit.
- If an AC, or other load, is fed off the existing legacy pedestal, it must be reattached to the new system provided the AC, or other load, was originally installed legally and is safe to reconnect (i.e., it meets the usual requirements and the load does not exceed the supply).
- Any code corrections are the responsibility of the homeowner and/or mobilehome park owner and are not reimbursable through the Program.

WHEN TRENCHING IS NECESSARY BTM:

NOTE: As with the gas system, trenching or aboveground electrical extensions not supported by the MH-unit are discouraged and should only occur when absolutely necessary to make the extension.

- The minimum cover over direct buried conductors (type USE conductors and type UF cable) shall be 24 inches.
- The minimum cover over non-metallic conduit shall be 18 inches.
- Electrical trench bedding shall be installed based upon type pursuant to the CEC.
- Electrical trench backfill shall be installed based upon type pursuant to the CEC.

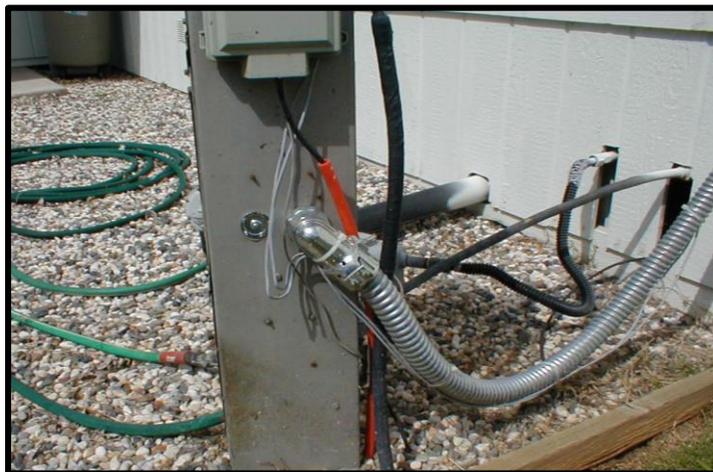


- If the cable is in good condition, a P-54 box may be used with a receptacle under the MH-unit to plug it in. The box can also be mounted on the underside of the MH-unit to avoid extending the conduit on the ground. The “J”-Box or P-54 that is attached under the MH-unit behind the skirting can be a NEMA 1 because it is not subject to weather conditions. It is preferable that this is metal and not PVC.



Inspection

- An electrical feeder extension is **only** tested when it is directly connected to the MH-unit.
- When a supply cable is used, a listed clamp, or the equivalent, shall be provided at the distribution panel board knockout to afford strain relief for the cord in order to prevent strain from being transmitted to the terminals. A strain relief is also required if the supply cable is spliced in a junction box.
- The connection of the feeder assembly conduit to the lot service equipment shall be made using flexible conduit at least 36 inches in length. The flexible conduit does not need to be watertight.
- The feeder assembly shall be kept from direct contact with the earth.



- The electrical wiring and power supply feeder assembly of the MH-unit’s electrical service shall be tested for continuity and grounding by the contractor and witnessed by HCD staff during inspection. The test **only** looks for direct shorts to ground. The entire circuit (from the service panel through the MH-unit) needs to

be tested, but the pedestal does not need to be energized for the continuity test. Test extension on mobilehome lots with RVs only.

- The test will be performed by the contractor and witnessed by HCD during inspection.
- The test shall be made by connecting one lead of the test instrument to the grounding conductor, and applying the other lead to each of the supply conductors, including the neutral conductor. There shall be no evidence of any connection between any of the supply conductors and the grounding conductor. Some old MH-units have a bonded neutral and ground the unit will only be tested between the supply conductor and the ground. No test will be performed between the neutral and the supply conductors.
- An AC unit being reconnected to the new service must have the connection tested after the electrical continuity test is completed on the MH-unit.
- Noncurrent-carrying metal parts of electrical equipment shall be tested to determine continuity for bonding between such equipment and the equipment grounding conductor (i.e., metallic gas line, chassis, metal siding).
- **Hardwired or have a junction box:** Test the entire extension and MH-unit. The MH-unit and the extension should not be tested separately as it would exclude the connection in the junction box. Depending on the situation, the test may need to occur at cutover. All tie-ins can be completed in advance; however, this is not the recommended method as it leaves homeowners without power for a longer period of time.
- **50 or 30 amp plug with receptacle under the unit (i.e., P54):** The test will occur by unplugging the MH-unit and testing it. Re-plug the MH-unit after the test has been performed. A test will also be performed from the receptacle (i.e., P54) to the service panel. These may be tested separately.
- A single disconnecting switch or circuit breaker shall be provided in the lot service equipment for disconnecting the power supply to the MH-unit. The disconnecting switch, circuit breaker, or its individual enclosure shall be clearly marked to identify the lot serviced and shall not exceed the rated load of the MH-unit or its conductors.
- System grounding conductors and equipment grounding conductors shall be connected as required by CEC Article 250.53. The connection of a grounding conductor to a grounding electrode shall be exposed and



readily accessible. All electrical equipment located in either damp or wet locations or outside of a unit shall be constructed of, or installed in, equipment approved for damp or wet locations (25CCR §1170).

- Aluminum wiring terminations must have an oxide inhibitor applied to conductors prior to attachment to termination fittings.
- Lugs shall be torqued to the service panel manufacturer's specifications.
- In the event that the electrical must be more than 4 feet away from the MH-unit, a lot service disconnect must be placed within 4 feet of the MH-unit.
- Only one power supply connection shall be made to an MH-unit. Room additions and enclosed porches are not part of the MH-unit and may legally be supplied from the pedestal. If an AC, room addition, porch or other connection is fed off the existing legacy pedestal, it may be reattached to the new system provided that the existing connection was installed legally, and is safe to reconnect. Wall and rooftop AC or evaporative units are part of the MH-unit and must be supplied by the MH-unit. They may not be attached to the pedestal.

LEAs may utilize any approval method acceptable to their agency.

ALTERNATE APPROVALS

- An alternate approval is required if the proposed installation does not meet the regulations.
- If an alternate approval needs to be requested for an installation, it must be approved prior to installation. An alternate approval is only granted on a rare exception – when there are no other alternatives. In order to obtain an alternate approval, an alternate approval request form [HCD 511](#) and pictures demonstrating the situation for each lot using the alternate approval form must be submitted via email to MHPUtilityUpgrade@hcd.ca.gov.
- The [HCD 511](#) is available at the HCD website (www.hcd.ca.gov). Under “Manufactured and Mobilehomes”, click on “Modifying a Mobilehome”. One [HCD 511](#) is required per MH-unit/lot.

Alternate Approval Application (HCD 511).

http://www.hcd.ca.gov/building-standards/manufactured-modular-factory-built/docs/Alt_Approval_HCD_511.pdf

- Permit applications are available on HCD's website.

Installations that do not meet regulations and have not received an alternate approval in advance of the inspection date will not pass inspection and may require relocation of the equipment to meet regulations.

PERMANENT BUILDINGS IN THE PARK

HCD does not inspect cabins, hotels, motels, houses, or apartment units located within a mobilehome park unless such a unit is used to house park staff involved in the operation or maintenance of the mobilehome park. The LEA is responsible for issuing permits and performing inspections for these types of units within a mobilehome park.

HCD issues permits and performs utility inspections on common area buildings such as clubhouses, public bathrooms, laundry rooms, park offices, etc. (25 CCR § 18304).

REMOVAL OF LEGACY SYSTEM INSPECTION

For both gas and electric, the inspector will check to see if any aboveground equipment not being used has been removed. The enforcement agency does not need to be onsite for the public utility's purging/capping process of the legacy gas system. Properly abandoned subsurface facilities no longer in use do not need to be removed. This includes removal of legacy pedestals, flex lines, aboveground piping, etc.

During the inspection, the inspector will walk the mobilehome park to ensure all aboveground equipment has been removed and the legacy gas system has been permanently capped.

NOTE: Requirements to remove abandoned facilities for overhead and underground electric facilities are specified in CPUC General Orders (GOs) 95 and 128, respectively. GO 95 and GO 128 are referenced within 25CCR. Gas facilities requirements for abandonment or deactivation of facilities are located in Title 49 Code of Federal Regulations (CFR), Part 192, §192.727 (which is referenced and adopted by California within CPUC GO 112-F). CPUC GO 112-F applies to all jurisdictional gas operators and facilities (e.g., all master-metered gas facilities) in mobilehome parks.

MOBILEHOME PARK UTILITY UPGRADE PROGRAM INSPECTIONS AND DOCUMENTATION

SCHEDULING AN INSPECTION

- Only **the primary BTM contractor/permit applicant** may request an inspection. All inspection requests must be submitted to MHPUtilityUpgrade@hcd.ca.gov.
- Inspections should be schedule 2-3 weeks in advance. Additional lead-time may be needed based upon workload.
- When scheduling an inspection, provide an estimated number of ready to be inspected gas, electrical, pedestal, or other electrical inspections. If the estimated amount of work is not going to be ready on the day of inspection, the contractor is responsible for notifying HCD well in advance of the scheduled inspection to determine next steps.
- The designated HCD contact will email the contractor confirming the date and time of the inspection and the name of the inspector.
- BTM contractor is **not** to attempt to schedule directly with the inspector.

INSPECTION DAY

- A binder of materials utilized, including manufacturer's installation instructions, needs to be onsite during the inspection.
- BE READY! Have the estimated inspections ready to go.
- **NO** partial inspections will be performed or issued without prior approval.
- **NO** spot checking is allowed.
- Pre-testing gas pressure and continuity prior to inspection is highly recommended. **Re-inspection fees of \$196.00 may be applied if the installation does not pass inspection.**
- Have enough siding off the home for the inspector to perform the inspection.
- Pedestals: Please have covers off prior to inspector being onsite. Grounding rods need to be assessable. Please have a torque wrench ready.
- Gas inspections: Please have multiple gas gauges set up to stay ahead of the inspector. The gauge needs to see the differential in pressure if there is a small leak.
- Electrical inspections: Please have a continuity tester/tilt meter on hand and be prepared to do the continuity test.
- Resistance testing: Please have an ohm tester onsite with log (a soft copy will need to be emailed to MHPUtilityUpgrade@hcd.ca.gov).

INSPECTION DOCUMENTATION

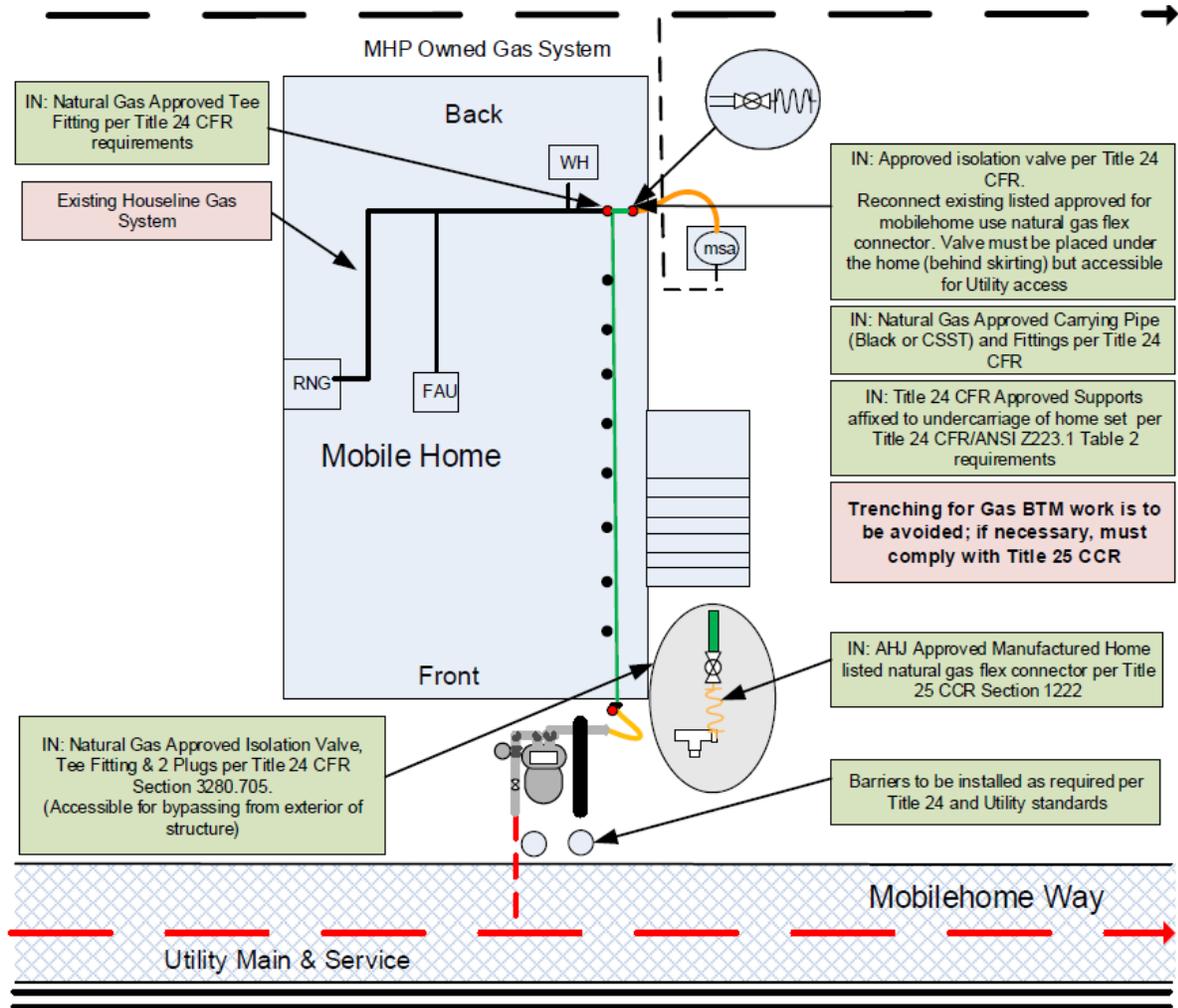
In an effort to streamline processes and be more efficient, HCD is keeping track of approvals and inspection progress on a tracking sheet (tracker). Within a week of the inspection, the designated HCD contact will email the BTM contractor and the public

utility company (if requested) a copy of the tracker. This will keep everyone up-to-date regarding the progress of the inspection and will serve as documentation if it is required for partial reimbursement. The tracker will be a holistic view of what has been approved so far at a mobilehome park.

- Only one inspection report per permit will be issued upon successful approval and completion of all the inspections for the permit.
- Please send ALL questions and inquiries regarding the documentation to MHPUtilityUpgrade@hcd.ca.gov.

Typical/Ideal Installation
MHP Utility Upgrade Program
Beyond the Meter - Gas - Scope of Work

- Contractor will be required to secure all necessary permits and licenses with the appropriate city, county or state agency having jurisdiction over the project and be in accordance with all applicable codes, standards, and regulations set forth in this scope of work.
 - Contractor is responsible for all labor, material, excavation, and restoration.
 - Contractor shall install per Title 24 Code of Federal Regulations (CFR) the appropriately sized natural gas approved carrying pipe (black/CSST) and fittings affixed to the mobile home undercarriage using Title 24 CFR approved hangers a minimum of every 4' lateral feet of pipe. Non-combustible piers/block support is unapproved unless previously granted a written waiver by the Authority Having Jurisdiction (AHJ).
 - Contractor should conduct initial pressure test of each home's legacy houseline gas system. If test fails, Contractor to notify owner/resident to make repairs. Repairs and/or part replacement costs are not covered by the MHP Upgrade program.
 - Contractor shall install appropriately sized new isolation valve on outlet of hard piping under home (behind skirting) but accessible for Utility access. Reconnect existing listed and approved for Mobilehome use natural gas flex connector to the existing legacy Meter Set Assembly (MSA).
 - Contractor shall install a new appropriate sized valve, tee, plugs, a AHJ approved for Manufactured Home use gas flex connector, and fittings to be cut over to the Utility's meter discharge pipe (Run of the tee shall be connected to hard piping).
 - Contractor shall pressure test existing legacy gas system and newly installed gas piping/fittings per Title 25 California Code of Regulations (CCR) requirements.
 - Contractor shall restore gas service to existing legacy MSA and newly installed gas piping/fittings prior to inspection.
 - After the inspection is completed by AHJ, Utility will install MSA and cut over without interrupting gas service to existing system. A positive request made to enter and safety check gas appliances is required.
 - To minimize Contractor and utility scheduling challenges, utility companies recommend installation of a removable 3rd valve downstream of the legacy gas meter. Utility companies can access this valve to complete Utility turn-ons in lieu of requiring skirting removal for valve access.
 - Mobile Home Park (MHP) Owner shall abandon existing legacy MSA and cap or plug isolation valve.
 - MHP Owner shall comply with AHJ's conditions for abandonment of existing privately owned gas distribution system.
-



For Illustrative Design Purposes Only

The Mobilehome Utility Upgrade inspection guidelines are not all-inclusive and may not include all of the requirements for the particular installation. The items below are to be reviewed for completion by the contractor/owner prior to scheduling an inspection. Additional fees may be applied if re-inspection is required due to not meeting regulations. Unless otherwise specified in the code, the manufacturer's installation instructions must be followed. Manufacturer's installation instructions are required to be onsite at the time of inspection for the inspector.

GAS INSPECTIONS

<u>REFERENCE</u>	<u>CODE</u>
<input type="checkbox"/> Supporting documentation has been provided, when applicable.	25 CCR § 1200
<input type="checkbox"/> Acceptable materials are being used and plastic pipe/components comply with ASTM.	25 CCR § 1208
<input type="checkbox"/> Extensions are installed in an approved trench or horizontal bore with tracer wire, when applicable.	25 CCR § 1216
<input type="checkbox"/> The gas riser outlet shall terminate within 4 feet of the unit, or proposed location of the unit, on the lot. Each unit connected to the gas riser outlet shall be connected by a listed flexible gas connector.	25 CCR § 1222
<input type="checkbox"/> Materials are the proper size and type for the application.	25 CCR § 1232
<input type="checkbox"/> Each MH-unit shall be connected to the lot outlet by an approved flexible gas connector, listed for its intended use, not more than 6 feet in length and of adequate size to supply the MH-unit gas appliance demand.	25 CCR §1354
<input type="checkbox"/> The service equipment is protected from vehicle damage.	25 CCR § 1228
<input type="checkbox"/> Gas system has successfully undergone a low pressure test.	25 CCR § 1362(C)(I)
<input type="checkbox"/> Extensions are installed with the proper support and hangers, when applicable.	24 CFR § 3280.705(I)(7)
<input type="checkbox"/> Subsurface extensions are installed with the required minimum radial clearance.	49 CFR § 192.325

ELECTRICAL INSPECTIONS

<input type="checkbox"/> Supporting documentation has been provided, if applicable.	25 CCR § 1130
<input type="checkbox"/> Extensions are installed with the proper support and hangers, when applicable.	24 CFR § 3280.808
<input type="checkbox"/> If a supply cord is to be used for MH-units 50 amps or less, the cord must be approved for MH-unit use and the total length cannot be less than 21 feet, nor greater than 36 ½ feet	24 CFR § 3280.803

<u>REFERENCE</u>	<u>CODE</u>
<input type="checkbox"/> BTM extensions on or above ground do not require minimum radial clearances. Subsurface installations require 12-inch separation.	CEC Article 110.26
<input type="checkbox"/> Materials are the proper size and type for the application.	25 CCR § 1136 & 1140
<input type="checkbox"/> Materials are installed in an acceptable location.	25 CCR § 1183 & 1184
<input type="checkbox"/> The electrode conductor is to be protected from physical damage and the connection to the grounding electrode is to be accessible.	25 CCR § 1162
<input type="checkbox"/> Only copper grounding conductors shall be used to connect electrical systems to a grounding electrode. Grounding conductors shall be protected from physical damage.	25 CCR § 1166
<input type="checkbox"/> Lot service equipment shall be grounded by an approved grounding system and be installed outside the pedestal. Electrode conductor is to be installed as close as possible to the pedestal. If an impedance of 25 ohms or less can be achieved, a single ground source may be utilized.	CEC Article 250.53(A)(2)
<input type="checkbox"/> Self-supporting pedestals shall have a concrete encasement at its base of 3-½ inches thick and extend 6 inches around the base of the pedestal.	25 CCR § 1182
<input type="checkbox"/> Pedestals shall be labeled with the corresponding lot number. Each circuit breaker shall be clearly labeled.	25 CCR § 1151
<input type="checkbox"/> The service equipment is protected from vehicular damage.	25 CCR § 1178
<input type="checkbox"/> Equipment is installed per the manufacturer's installation instructions and HCD regulations with proper support.	25 CCR § 1185
<input type="checkbox"/> When the park electrical service is supplied by a grounded system operated at 600 volts or less, a grounding conductor with the feeders off the primary electrical system to all equipment supplied by the system is required.	25 CCR § 2154
<input type="checkbox"/> A mobilehome with a branch circuit to energize outside heating or air-conditioning, other than room air conditioners, must have branch-circuit conductors terminate in a listed outlet box, or disconnecting means, located outside of the mobilehome.	24 CFR § 3280.813
<input type="checkbox"/> Extensions are installed in an approved trench or horizontal bore, if applicable. Electrical equipment has successfully undergone a continuity/polarity test.	25 CCR § 1134 25 CCR § 1362

FREQUENTLY ASKED QUESTIONS MOBILEHOME PARK UTILITY UPGRADE PROGRAM

GENERAL

What regulations apply?

- The mobilehome park regulations are found in Title 25 California Code of Regulations (25CCR), Division 13, Chapter 2, commencing with Section 1000.
- The manufactured housing regulations are also contained in 25CCR, Division 13, Chapter 3 commencing with Section 4000.
- Title 24, Code of Federal Regulations, (24CFR), Part 3280: for alterations to the manufactured home/mobilehome.
- These regulations are adopted and enforced to govern and ensure the construction, maintenance and use of mobilehome parks as well as alterations to mobilehomes/manufactured homes.

How much skirting has to be removed for the inspector to conduct a visual inspection of the gas line and conduit installation?

- Sufficient skirting must be removed in order to perform the inspection of the extensions on the MH-unit (i.e., enough to see the extensions and their supports).
- The contractor is advised to take video and/or photos of all skirting prior to removing any portion of it. Necessary skirting removal/repairs are part of the Program; however, excessive damage and full replacements are not covered. Documentation of existing damages and expenditures for repairs must be discussed with the utility company prior to commencing the repairs.
- All openings around the electrical conduit and gas line at the skirting must be sealed to prevent rodent intrusion.
- Gas line and electrical conduit extensions are to be installed in a manner that will not impede access to the underfloor access. The access panel, typically an 18-inch by 24-inch opening, must remain unobstructed by the newly installed pipe or conduit.

PERMITS

How do I request a partial refund on my permit?

- The permit applicant can request a refund in-person at the permit counter or via mail. The refund cannot be transferred to another permit. In order to process the refund request, please provide:
 - A copy of the permit;
 - A letter explaining why the refund is being requested; including any corresponding lot numbers where work will not be completed and reference the DTN/Permit #; and
 - Accurate contact information.

How do I extend the expiration date of my permit?

25CCR §1038 provides information on extending the expiration date for a permit. The permit applicant may submit the request to the designated HCD contact via email. Please make sure the request includes the DTN and Park ID #.

GAS

Why is the gas test in ounces?

- The test is roughly twice the pressure of the normal gas pressure and is designed to reveal any leaks that may have occurred. The fuel-gas piping system shall not be over-pressurized. Excessive pressure may result in damage to valves, regulators, and appliances. When a switch has been made from natural gas to propane, it will be necessary to change the regulators and orifices to get the proper pressure and to avoid damage.

When and how are repairs of existing house gas line systems to be resolved?

- Repairs should be conducted prior to inspection by the enforcement agency.
- Repairs need to be addressed between the homeowner and the contractor.
- Reimbursement for repairs are not included in this Program. However, utility companies may have other programs that may assist in minor repairs.

What if an appliance is in poor condition and will not pass the pressure test?

- The MH-unit pressure test will be conducted with all shut-off valves on the unit in the open position (excluding a range with pilot lights if applicable). If an MH-unit fails the BTM contractor's pre-test or HCD inspection, the BTM contractor needs to identify and isolate the source of the leak. If the source of the leak is the appliance itself (i.e., not a valve, fitting, flex), then the BTM contractor may close the valve to the appliance and retest the gas system to verify the appliance is the source of the leak. The contractor must notify HCD regarding this issue. Either HCD or the contractor will notify the homeowner of the issue. Depending on the circumstances, the entire MH-unit may be shut-off until the homeowner is able to remedy the issue. In any event, an appliance that cannot be repaired and is leaking must have the gas outlet for the appliance capped off and written notification will be issued.

ELECTRICAL

Is the grounding electrode conductor required to be in a raceway?

- The electrode conductor is to be protected from physical damage and the connection to the grounding electrode is to be accessible pursuant to 25CCR § 1162 and 1166. A #4 copper wire is not required to be armored or encased and is of sufficient size to remain unprotected.

If the existing feeder is hardwired to the existing lot electrical service pedestal, where, below the MH-unit, should the junction box be located?

- If possible, it should be located in an area where the existing feeder conductors can reach in an approved manner.

Can the P-54 be eliminated and the existing cord/MH-feeder be spliced and connected to the new conductors in the junction box?

- Yes, however, HCD will have to reinspect at the time of “cutover” prior to the utility company providing service. The cord cannot be spliced with another cord to extend the cord’s length, but it can be hard-wired from the J-box to the service.

What if you get an unintentional fault while testing the hot wires and neutral wire?

- When completing continuity testing of the MH-unit and extension, because many older units utilize electrical systems that may indicate an unintentional fault when testing between the current carrying conductors (hot wires) and grounded conductors (neutral wire), the test may be conducted between the current carrying (hot) and grounding (ground to earth) conductors.

Are electrical equipment or fixed appliances on the lot installed to serve an MH-unit, accessory building or structure, or building component allowed to be connected to the newly installed lot electrical service equipment? If so, can the individual branch circuits be installed in the newly installed MH feeder raceway?

- If the original electrical equipment was legally and properly installed it must be reinstalled with reimbursement from the Program. However, if the electrical equipment was not legally and properly installed, or is clearly unsafe, then it will not be reconnected. The homeowner will be responsible for correcting the issue and reconnection to the new pedestal.
- The conduit may carry the additional wiring provided the conduit fill is not exceeded.

There are two loads connected to the existing lot service (i.e., one for the MH-unit, one for the AC). How are they reconnected?

- The AC wires can run into a junction box with the MH-unit wiring and run back to the service connection.
- Separate breakers are required for each load.

The MH-unit has a panel capable of 100 amperes. Can the MH-unit be upgraded?

- Yes, but it is not reimbursable through the Program.
- It would require a separate permit and inspection by HCD.
- The AC unit could be connected to the service panel.

What if a resident or park wants to upgrade to a 200 amp panel?

- If a mobilehome owner wants to upgrade the mobilehome subpanel (from 50 amp to 100 amp or 100 amp to 200 amp), a separate HCD 415 permit is required,

including the associated fees. The mobilehome owner is responsible for the permit fees. The permit fees are not reimbursable through the Program.

- If the mobilehome park owner would like to upgrade the panels in common areas, then a separate HCD 50 permit is required, including the associated fees. The mobilehome park owner is responsible for the permit fees. The permit fees are not reimbursable through the Program.
- If there is a permanent panel on the MH-unit and a pedestal is used, the ground needs to be at the service panel/pedestal, and four wires that include a ground will need to be carried to the modified subpanel, and the ground and neutral wiring need to be separated. The existing panel will become a subpanel, and neutral and ground cannot be bonded.

What are some examples of meters that have been placed in a location that do not meet regulations?



Why do I need an alternate approval if the gas riser outlet or the equipment to supply electrical power will not be within 4-feet of the MH-unit?

- Based on 25 CCR §1222(a), the gas riser outlet shall terminate within 4 feet of the MH-unit, or proposed location of the MH-unit on the lot. 25 CCR §1184 states that the equipment to supply electrical power to an MH-unit shall be located within 4 feet of the MH-unit or the proposed location of the MH-unit.