




A Touchstone Energy® Cooperative 
The power of human connections®

New conduit installation specs.

Garkane Energy

Cooperative 120

W. 300 S

Loa, UT 84747

800-747-5403

www.garkaneenergy.com



May 4, 2023

Garkane Members,

Garkane will implement a new underground construction procedure for underground cable installation. Garkane will no longer utilize the Cable-In-Conduit (CIC) product we have in the past. Instead, we will use stick PVC conduit work procedure similar to many of our neighboring electric utilities. We are making this change to create more flexibility for our members and crews in the construction scheduling process. The change will also improve Garkane's ability to reuse the conduit, as the cable needs to be replaced.

A summary of the new work process is as follows:

1. Complete the project design and payment phase.
2. Contact Garkane's Area Manager two weeks before trenching for preliminary scheduling.
3. Dig a trench, place bedding, and install (UL electrical 3-inch pvc schedule 40) conduit.
4. Confirm conduit/trench inspection schedule with Garkane's Area Manager.
5. Receive an inspection and approval.
6. Backfill per Garkane's Conduit Specifications (Attached).
7. Work with Garkane's Area Manager to schedule a mutually acceptable time for Garkane's crews to pull in the cable into the conduit.

Should you have any questions, don't hesitate to contact Garkane.

Sincerely,

A handwritten signature in blue ink, appearing to read "B.S.", written over a light blue circular stamp.

Bryant Shakespear P.E
Garkane Energy
1802 S Hwy 89A
Kanab UT, 84741

UNDERGROUND SERVICE INSTALLATIONS

Trenching Specifications (Primary and Secondary)

- All service locations that receive a significant amount of snow will be installed using underground methods.
- Conduit or secondary underground service conductor will not be installed to member's facility until an inspected meter base is in place.
- Member will provide a clean, rock-free trench. Trench must be straight from point to point as shown on the staking sheet. Trench bottom shall be level and smooth with no foreign material, rocks or sharp edges. A 6" bedding of rock-free dirt or sand shall be placed below the conductor and conduit. 12" minimum backfill with no solid material over 1" diameter shall be placed around and above conduit, no foreign material is permitted. Complete trench must be backfilled. All backfill shall be firmly tamped into place prior to energizing cable. Customer is responsible for all backfill settlement issues.
- Primary trenches shall be 48" deep, with a 6" bedding of rock-free dirt or sand and at least 18" wide. The conductor shall be placed 42" below final grade. (exception: Solid rock trenches will be accepted at 42" deep, so the conductor will be buried 36" below final grade).
- Secondary trenches shall be 36" deep with a 6" bedding of rock-free dirt or sand and at least 18" wide. The conductor will be placed 30" below final grade.
- A Garkane employee will require inspections after bedding and before and after backfilling.
- Depths specified are to existing finished grade.
- It is the responsibility of the member to make sure the trenches are in the allotted easements.
- Garkane employees will not enter trenches that do not meet OSHA's excavation standards, 29 CFR 1926.651. (Spoils must a minimum of 2 feet back from the trench).
- When gas or water lines cross in the trench with electric lines, there must at least one foot of vertical separation.
- Conductor will not be energized until backfill is properly completed.
- Garkane will supply marking tape to be placed 12" below existing finished grade.

Joint Use Trenches: Members and developers requiring a joint use trench where telephone and television cable are within the electric trench are solely responsible for all coordination between the included utilities. All utilities requesting joint use trenches must be designed and ready to be installed at the time the Garkane facilities are scheduled for construction. A minimum 12 inch separation is required between electrical and all other services that share the trench. Although utilities such as phone and television cables are allowed in Garkane trenches, for safety of personnel, Garkane does not allow customer-owned installations such as control cables, wiring or 120 / 240 V secondary service wires. Any customer whose trench does not meet the above specifications and causes the Line Crew or Serviceman an extra trip will be subject to an additional fee.

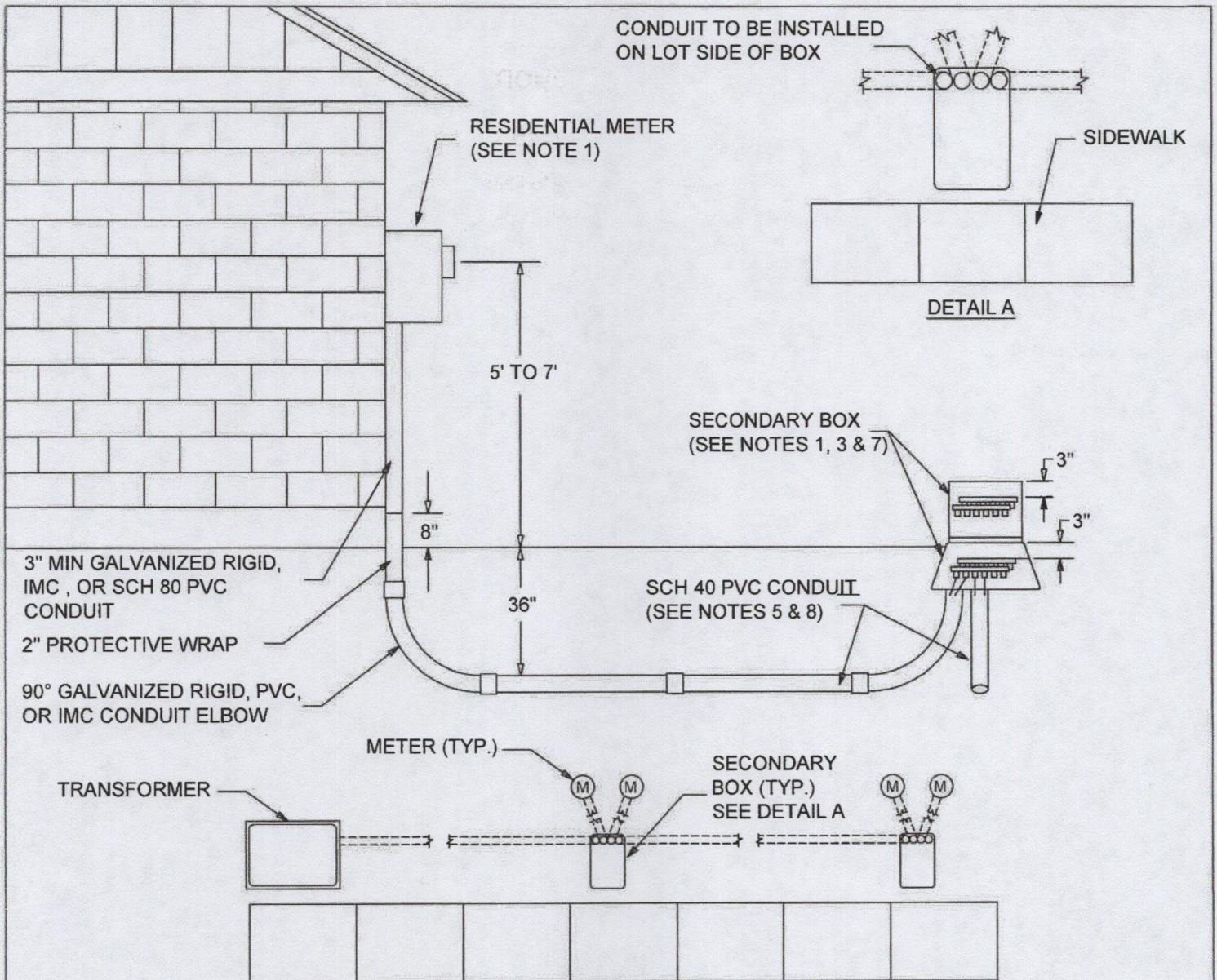
CONDUIT INSTALLATION TRENCHING SPECIFICATIONS

DRAWN BY:
LWC

DATE:
01/12/2023




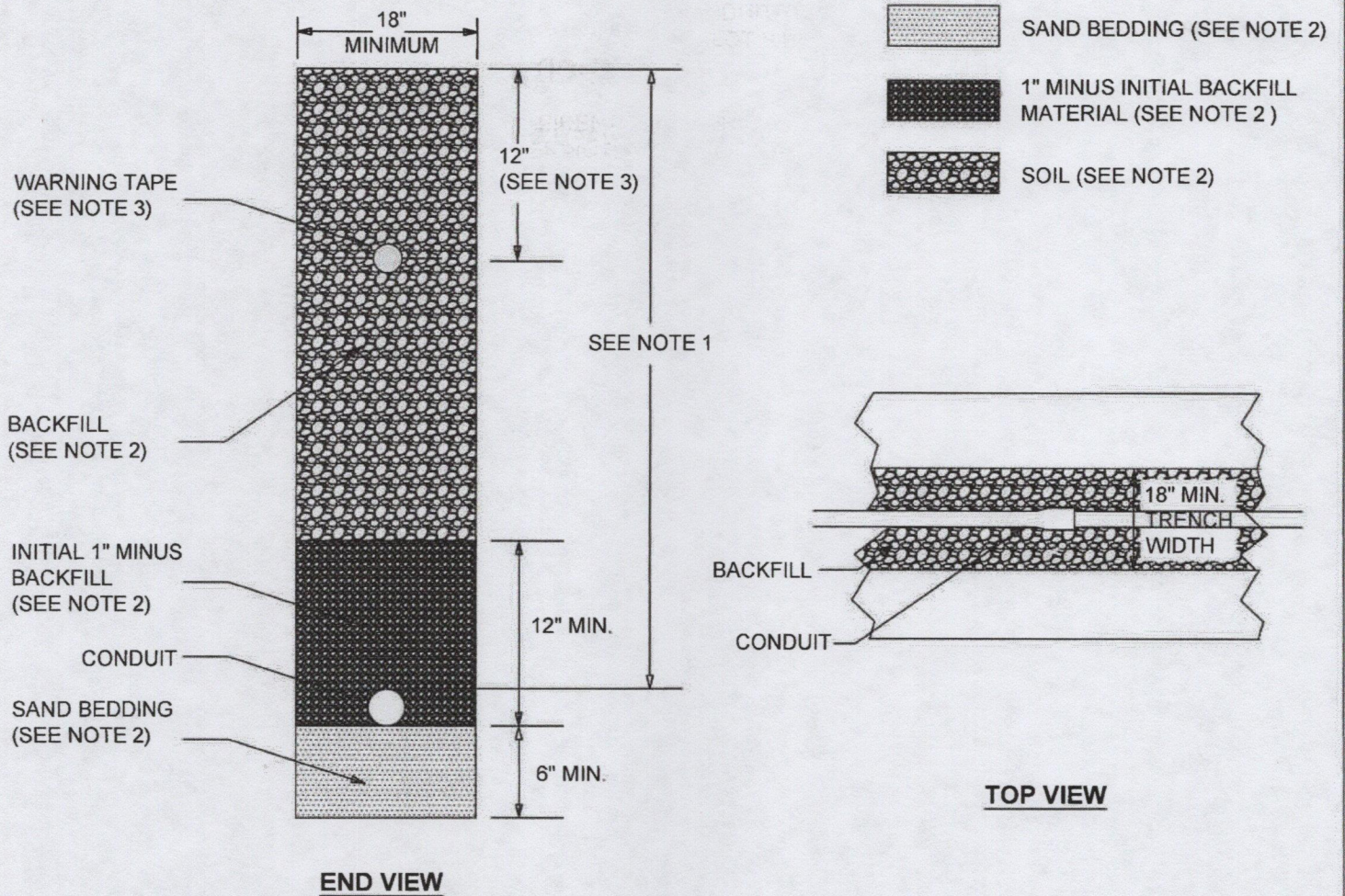
SHEET:
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NOTES:

1. METER MOUNTING PROVISION.
2. MINIMUM RADIUS BEND - 18".
3. SERVICE CONDUCTORS TO EXTEND FROM THE METER MOUNTING PROVISION TO THE END OF THE CONDUIT. CABLE END TO BE SEALED INSIDE SECONDARY BOX.
4. MINIMUM CLEARANCE FROM BUS TO LID MUST MAINTAIN 3 INCHES.
5. PLASTIC SCHEDULE 40 CONDUIT TO BE CONTINUOUS FROM THE END OF THE ELBOW ON THE SERVICE RISER TO THE SECONDARY JUNCTION BOX OR TRANSFORMER.
6. METER SHALL BE PLACED AT THE BUILDING'S CLOSEST LOCATION TO THE TRANSFORMER OR SECONDARY BOX APPROVED BY GARKANE ENERGY.
7. SECONDARY JUNCTION BOXES SHALL BE INSTALLED 6" ABOVE TOP BACK OF CURB (TBC)/FINISHED.
8. CONDUIT SIZE IS NOT TO BE REDUCED BETWEEN PULL SECTIONS.

SERVICE REQUIREMENTS RESIDENTIAL		
DRAWN BY: LWC	DATE: 01/12/2023	 SHEET: 2 OF 4



NOTES:

1. THE MINIMUM ALLOWABLE BURY DEPTH FOR CONDUIT IS 42" FOR 15KV PRIMARY CONDUCTORS AND 30" FOR 600 VOLT SECONDARY CONDUCTORS, MEASURED FROM EXISTING FINISHED GRADE TO TOP OF PIPE.
2. 6" OF SAND BEDDING SHALL BE INSTALLED UNDER THE CONDUIT. AT LEAST 12" OF 1" MINUS MATERIAL SHALL BE PLACED AROUND AND ABOVE THE CONDUITS. THE REMAINING BACKFILL MATERIAL SHALL BE SOIL REMOVED FROM THE TRENCH UNLESS SPECIFIC BACKFILL REQUIREMENTS EXIST.
3. WARNING TAPE SHALL BE INSTALLED ABOVE THE CONDUIT ZONE, APPROXIMATELY 12" BELOW FINISHED GRADE.
4. IF MORE THAN ONE LAYER IS INSTALLED, A 12" SEPARATION WILL BE REQUIRED. ALSO, THE DEPTHS WILL BE TO TOP LAYER.
5. SCHEDULE 40 PVC CAN BE SUBSTITUTED WITH HDPE CONTINUOUS CONDUIT WITH GARKANE ENERGY ENGINEER APPROVAL,
6. ENCASE CONDUIT IN CONCRETE WHEN CONDUIT CANNOT BE INSTALLED AT THE REQUIRED MINIMUM DEPTH. IN ADDITION, 3" PRIMARY SWEEPS SHALL BE CONCRETE ENCASED.
7. ALL BACKFILL PLACED OVER THE PLASTIC CONDUIT MUST BE COMPACTED PER THE CITY OR COUNTY STANDARD SPECIFICATIONS FOR DESIGN AND CONSTRUCTION.

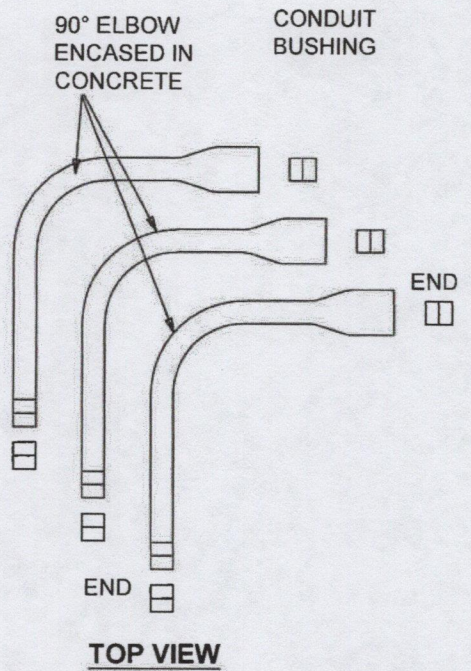
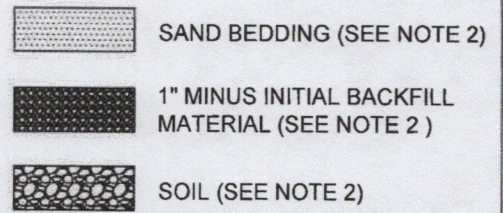
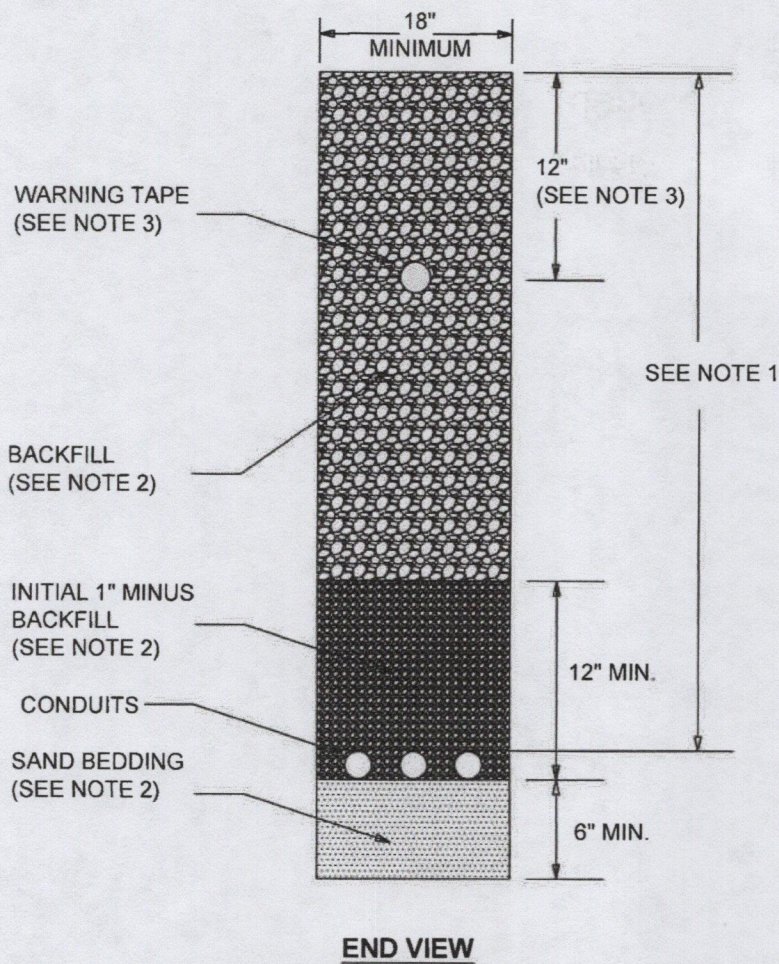
**CONDUIT INSTALLATION
SINGLE CONDUIT**

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NOTES:

1. THE MINIMUM ALLOWABLE BURY DEPTH FOR CONDUIT IS 42" FOR 15KV PRIMARY CONDUCTORS AND 30" FOR 600 VOLT SECONDARY CONDUCTORS, MEASURED FROM EXISTING FINISHED GRADE TO TOP OF PIPE.
2. 6" OF SAND BEDDING SHALL BE INSTALLED UNDER THE CONDUIT. AT LEAST 12" OF 1" MINUS MATERIAL SHALL BE PLACED AROUND AND ABOVE THE CONDUITS. THE REMAINING BACKFILL MATERIAL SHALL BE SOIL REMOVED FROM THE TRENCH UNLESS SPECIFIC BACKFILL REQUIREMENTS EXIST.
3. WARNING TAPE SHALL BE INSTALLED ABOVE THE CONDUIT ZONE, APPROXIMATELY 12" BELOW FINISHED GRADE.
4. IF MORE THAN ONE CONDUIT IS PLACED IN TRENCH, THE TRENCH WIDTH SHALL BE INCREASED SO THAT SPACING BETWEEN CONDUITS CAN BE MAINTAINED AT 3". WOOD SHALL BE WEDGED BETWEEN CONDUITS TO MAINTAIN CONDUIT SEPARATION.
5. IF MORE THAN ONE LAYER IS INSTALLED, A 12" SEPARATION WILL BE REQUIRED. ALSO, THE DEPTHS WILL BE TO TOP LAYER.
6. 3" PRIMARY SWEEPS SHALL BE ENCASED IN CONCRETE.

**MULTIPLE CONDUIT INSTALLATION
90° CONDUIT ELBOW**

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01/12/2023



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