

PAYSON CITY POWER AND LIGHT

Electrical Construction

Standard Specifications



Revised January 27, 2005

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4-2.1 Purpose

This manual was prepared to aid developers, contractors and engineers in establishing electric service for new and remodeled structures. We recognize that you may require personal assistance from our staff, and we encourage you to contact us by calling Payson City Power and Light at 465-5274 to discuss your electric service requirements with us. Additional copies of this manual are available at Payson City offices at 439 West Utah Ave. or at 1100 North 100 East at Payson Power and Light Shop. It is the desire of Payson Power and Light, and the local electrical code enforcing authority to provide you, the Customer (developers, contractors, owners etc.), with high-quality, safe electric service.

In order to avoid unnecessary repetition, the word "Utility" as used in the following pages shall mean Payson City Power and Light.

The requirements of this manual are intended to apply to relocated services, rewired services, and house moves, as well as to new services, unless a specific exception is granted.

4-2.2 Codes and Ordinances

It is necessary that the construction of new or, remodeled installations conform to applicable provisions of the National Electrical Code (NEC), National Electrical Safety Code (NESC), and Payson City codes. This includes OSHA rules both during construction and maintenance.

Provision for qualifications of contractors, bonding, permits, inspection, fees, etc., are outlined in chapter 13 of the Payson City Ordinances and resolutions shall apply here-in. Items contained therein that must be complied with relating to electrical distribution construction include:

- Obtaining a business license
- Inspections
- Obtaining permits
- Penalties for violations
- Power line extension fees
- Customer deposits Electrical connection fees
- Metering

4-2.3 Changes or Conflicts in Requirements and Guidelines

These requirements and guidelines are issued with the intent of complying with all applicable codes, ordinances, regulations, and tariffs; however, in the case of conflict, the appropriate regulation, tariff, code, or ordinance will supersede the interpretation offered in this manual. In addition, these, requirements are subject to change in the event that the governing codes, ordinances, regulations, or tariffs are changed. The Utility does not assume responsibility for keeping this manual current and should be consulted in case of doubt on the applicability of any item.

The phrase "consult Utility" as used in this manual shall mean a consultation with Payson City Power and Light is to be made for each and every installation or project.

4-2.4 Application for Services

It is important the Utility be provided as early as possible with accurate load information and the date when the Customer will require service, so all necessary arrangements for the service may be completed. Requests for service to commercial and industrial customers normally require 60 days advance planning by the Utility in order to serve the load. Installations requiring transformers or other equipment not in stock require six months lead time or more.

For commercial, industrial, residential subdivisions, mobile home parks, and apartment complex applications, the requests for service shall include a plot plan. Commercial, industrial or plot plans should show preferred service and meter, location, and single line diagram of the electrical layout. The request must show all load information, including lighting, receptacle, water heating, cooking, electric heat, air conditioning, and motor loads, plus sufficient information on equipment operations to allow the kilowatt demand of the load to be estimated.

The Utility has a staff available to provide advice on service requirements and related problems relative to electric energy utilization for new, existing, and reconstructed installations. The Customer or the Contractor will be held liable for any damage to Utility equipment or personal injury unless adequate notice is given to the Utility and approval is granted regarding the change or addition.

When conditions are encountered during construction that require changes in the service arrangements, the Utility must be consulted so mutually satisfactory alternate arrangements can be made. Communication with the Utility will bring this service to you.

All Utilities such as Cable TV, Phone, Gas, etc. must be contacted after approval for service has been given.

4-2.5 Types of Service

The electric service available is 60 hertz (cycles), alternating current, single or three-phase. The secondary voltages and connections available are given below:

1. Overhead Service
2. Single-phase, 120/240 volt, three-wire, grounded
3. Three-phase, 208Y/120 volt, four-wire, grounded, wye
4. Three-phase, 480Y/277 volt, four-wire, grounded, wye
5. Under certain conditions, at the option of the Utility the following services may be supplied:
6. Single-phase, 240/480 volt, three-wire, grounded
7. Three-phase, 240/120 volt, four-wire, grounded delta
8. Three-phase, 480/240 volt, four-wire delta
9. Underground Service
10. Single-phase, 120/240 volt, three -wire, grounded
11. Three-phase, 208Y/120 volt, four-wire, grounded, wye

12. Three-phase, 480Y/277 volt, four-wire, grounded, wye

The nominal primary voltage of the Utility's distribution system may differ from under certain conditions. Primary delivery will be at the distribution voltage standard for the location at which it is requested.

4-2.6 Approval for Service

It is required that an electrical installation be approved by the Building inspector before it can be energized by the Utility. The service will be energized by the Utility only after all service requirements have been met.

4-2.6.1 Inspection Check List

4-2.6.1.1 Subdivision (for details, sizes refer to spec book)

1. Provide an electronic map of subdivision
2. Approved plan must be completed prior to pre-construction meeting
3. Property corners permanently marked in concrete
4. Map must denote sidewalk being Monolithic, park strip or none
5. Trenching 2' behind walk
6. 4' top of conduit for primary from final grade
7. 2' separation between communication and power with power closest to the sidewalk
8. Warning tape placed 2' above power conduit
9. All 90's need to be 36" sweeps
10. Conduit for UTOPIA must be orange color which stays with communication
11. Flat bottom trench
12. Road sleeves for conduit min of 70 feet in length and need to be in line with back of walk
13. Shading Conduit with sand if native soil has rocks larger than 4"(get direction from inspector)
14. 90's are stubbed up and placed 2' off front and side of property line
15. Communication equipment is located on a different property corner other than power
16. All conduits are capped
17. All future stubs need marker flags (available through Payson City)
18. Electrical conduit is gray schedule 40 pvc, communication use a different color
19. Under all electrical sleeves and equipment need gravel 1" minus
20. Secondary junction boxes need to be equivalent with Carson or Carlon with twist locking latch.
21. Transformer, switch and ground sleeves need to be 4 to 6 inches above back of walk and level
22. Secondary junction boxes need to be 2-3 inches above final grade and level
23. Street light location needs to be verified before installation
24. Street light foundation needs to be level and bolts need to be above grade

25. Conduit for streetlight follows the secondary conduit and 90's in to streetlight foundation.
26. Conduit needs to be 2-4" above gravel inside and in the middle of the opening of transformer sleeves and secondary junction boxes
27. Mule tape installed inside of all Primary conduit
28. Three phase transformer pad needs to be 6" above grade with #4 rebar with 1' center mat. Require dimensions for pad from Payson City. 1 1/2' separation between secondary and primary conduits in the pad
29. Metering (transformer or Building)

4-2.6.1.2 Final If Materials Purchased From Payson City

1. Secondary wire pulled in and extended 3' above box
2. Secondary junction boxes terminated to manufacturing torque specifications
3. Secondary terminator connectors need to be pre lubed and meet specifications
4. Streetlights installed including poles, head, wire and all connections made up

4-2.6.1.3 Final If Materials Provided By Contractor

1. Transformers need to have all insulated secondary connectors, busbars and well bushings installed and tight, transformer tank ground lugs (2).
2. #6 bare copper attached to the ground rod and transformer tank ground connector.
3. Transformer secured to sleeve
4. Secondary terminated in transformer
5. All primary terminators must meet specifications
6. All ground sleeves and switch boxes must meet specifications
7. Secondary wire pulled in and extended 3' above box
8. Secondary junction boxes terminated to manufacturing torque specifications
9. Secondary terminator connectors need to be pre lubed and meet specifications
10. Streetlights installed including poles, head, wire and all connections made up

4-2.6.1.4 Services

1. Trench 2' from top of conduit to final grade
2. 36" sweep 90's
3. Attached to existing secondary conduit stub (stub may need to be adjusted to be straight)
4. Trench flat and straight from junction to meter base
5. Meter base location (see specifications)
6. Check service connections to be tight and dioxide.
7. Meter hub on service conduit
8. Service conduit for UTOPIA

4-2.7 Permanent Service Connection

Only authorized Utility employees shall make the permanent (or temporary) connection or disconnection of the Utility's electric service to a building or structure.

4-2.8 Seals

The purpose of seals placed by the Utility on meters and associated service equipment is to prevent injury and/or tampering.

Under normal circumstances, seals are not to be removed except by the Utility. If an emergency should require seal removal (only by authorized electrical contractors) without prior notification, the Utility must be notified as soon as possible, so the installation can be inspected and the seal replaced. When this occurs, the party removing the seal shall accept all liability for damage or alteration to equipment, injury to persons or property, and loss of revenue to the Utility. From the time the seal is removed until 72 hours after the Utility has been notified that the equipment is ready to be re-sealed.

4-2.9 Work Activity near High Voltage Overhead Power Lines

As set forth in Section 54-8c-1 through 54-8c-7 of the Utah Code, no person or thing may be brought within 10 feet of any high voltage overhead power line unless:

1. The responsible party has notified the Utility operating the high voltage line of the intended activity; and
2. The responsible party and the Utility have completed mutually satisfactory safety precautions for the activity; and
3. The responsible party has made prior arrangements to pay the Utility for the mutually satisfactory safety precautions (if applicable).

The Utility recommends a minimum of 3 business day's notice be given before any work near its lines is scheduled to begin.

NOTE: The National Electrical Safety Code requires that homes, buildings, bridges, signs, antennas, etc. have sufficient horizontal and vertical clearance to overhead power lines. Consult with the Utility for applicable distances.

4-2.10 Services

The location of the service entrance on the Customer's premises is an important consideration to both the Customer and the Utility. The location where the developer or contractor metered service is ten (10) feet (five feet preferred) from the front on the side of the house. The location where the developer or contractor attaches to the City Electrical system shall be determined by the Utility.

The Utility shall be consulted in order to designate the point of attachment for overhead service drops, underground service laterals.

For secondary voltage service, the Utility will provide, install, and maintain meters. The Customer will provide, install, and maintain all service equipment, including switches, service entrance conductors, raceways, enclosures, and meter sockets, and will provide right - of - way and space for the installation and maintenance of the Utility facilities.

4-2.11 Working Space

To permit access to metering installations and to provide safety for Personnel, a working and standing space entirely on the property of the customer is to be provided in front of all meter socket(s). All clearances must be at least as shown below.

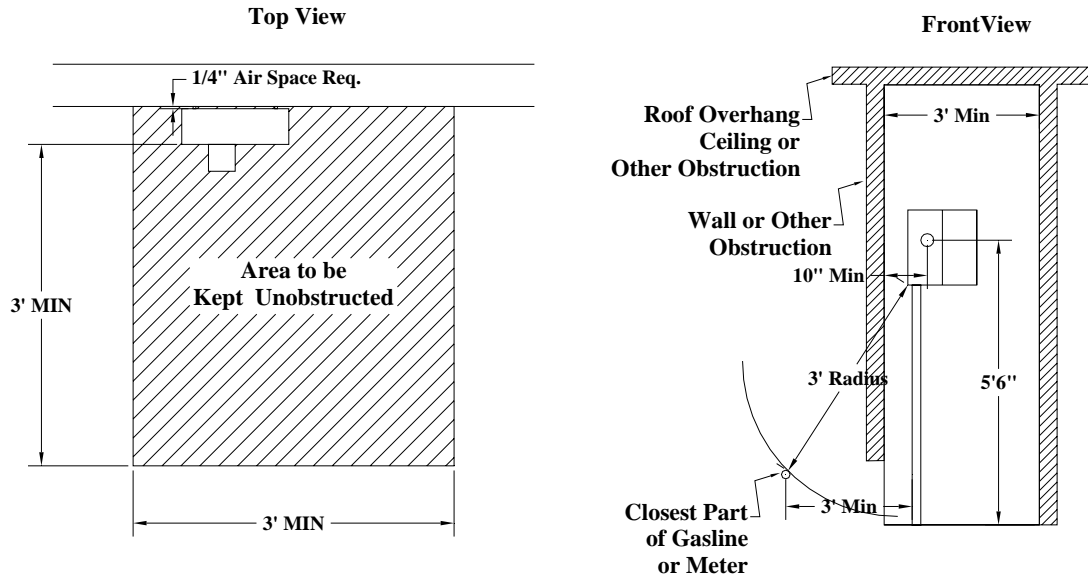


Figure 4-2.11-1 Minimum Clearances around Meters

NOTE:

Maintain a three (3) foot minimum radius from gas meter to electrical meter base. The customer will furnish, install and maintain or make a contribution in aid of construction to the Utility at the Utility option for permanent barricades to provide protection where the working space is exposed to vehicles or hazardous conditions. The determination of need, type, size and location of barricades is at the sole discretion of the Utility.

All service entrance conductors must be installed in continuous rigid galvanized steel or IMC. Electrical grade PVC schedule 40 may only be used below ground. Risers will be rigid galvanized steel or IMC for the first 10 feet then PVC schedule 40 may be used up the pole.

All rigid galvanized steel or IMC conduit will be supported with a wrapped rigid galvanized steel or IMC 36 inch sweep 90.

4-2.12 Sealing of Cabinets and Gutters

All cabinets and gutters containing unmetered conductors, other than mainline switches required by applicable electrical codes, must be arranged for sealing with the Utility's seal. Removable conduit fittings may be installed between the service outlet and the meter when approved by the Utility. These fittings must be visible from the meter location or from an exterior ground position and must be arranged for sealing.

Unmetered conductors passing through a service disconnect compartment in mobile home service equipment must be in an enclosed raceway and arranged for sealing.

4-2.13 Conductor Identification

Neutral shall be identified with the color white. In a four-wire delta service, the conductor with the higher voltage to ground will be identified with the color orange.

4-2.14 Location of Meters

Suitable space and provisions for mounting meter bases must be provided by the customer at a location acceptable to the Utility. Residential Meters should be located on the side within the front 10 feet (preferred 5 feet from front).

The center of any meter socket located outdoors on structures shall not be more than 6 feet or less than 5 feet above the finished grade or floor immediately in front of the meter. The center of meter sockets in mobile home pedestals shall not be less than 42 inches above finished grade. Meters in pedestals must be suitably protected from physical damage, In the case of vertical 4-gang meter bases, the bottom of the lowest meter socket shall be at least 36 inches above final grade

4-2.15 Temporary Service

A pre-assembled temporary service "loop" will be furnished and installed by the contractor according to NEC regulations. The location of the temporary will be determined by the Utility.

All temporary power stations, that are located on the housing foundations, will provide permanent power upon final completion and inspection of residence. The temporary power stations are to be affixed permanently anchoring to the concrete foundation. Meter base must be supported with a hub. Conduit must be supported a manner to prevent it from settling with unistrut and clamp, anchored to the foundation with two (2) 3/8 inch (min.) expandable steel bolt anchors.(see detail A Drawing NO. 02-05-0001).

4-2.16 Disconnection And Reconnection Of Service

The Utility will disconnect and reconnect any service supplying Customer-owned, service equipment, that, for safe working conditions must be de-energized prior to modification. There will be no charge for the disconnection. The reconnection will be done without charge if it can be completed on the initial trip or on a second trip scheduled during regular working hours and at the Utility's convenience; otherwise, the Customer will be billed a reconnection charge according to Title 13 of the Payson City Ordinances.

4-2.17 Customer Equipment On Utility Poles

Customer-owned metering equipment, switching devices, conduits, conductors, luminaries, etc. are not to be mounted on the Utility's poles.

4-2.18 Overhead Service, 480 Volts And Under, Service Drop

The Utility will locate the service entrance, to avoid having conductors pass over swimming pools, buildings, trees, or other obstructions if at all possible.

In areas served from overhead lines, an overhead service drop will be installed by the Utility from the Utility distribution line to the point of connection to the Customer's service entrance. Customer's service entrance conductors must extend a minimum of 18 inches from the service entrance weather head on the Customer's residence, building, or structure.

The Customer will provide a suitable point of attachment for the service drop. The point of attachments will be high enough above both initial and final grade and in a proper position to provide not less than minimum clearances as specified in the NESC. It is the Customers responsibility to ensure that the route of the service drop is not obstructed by buildings, trees, or other objects. The point of attachment will be on the side of the building designated by the Utility. Supports for service drops must meet NEC requirements and be extended from and tied into the main structural members of the building. The service mast shall extend through the roof on a building. Where mast is longer than 10 feet top of mast shall be solid or a full 10 foot of ridged or IMC.

4-2.19 Multiple-Unit Residential Overhead Service

The Utility will locate the service entrance, to avoid having conductors pass over swimming pools, buildings, trees, or other obstructions if at all possible.

The Utility will extend an overhead service drop from its distribution lines to the point of connection to the Customer's service entrance conductors at the service head. The Utility requires the grouping of service heads at a common location and will not extend service drop conductors from the point of attachment to the individual service heads.

4-2.20 Nonresidential Overhead Service

The Utility will locate the service entrance., to avoid having conductors pass over swimming pools, buildings, trees, or other obstructions if at all possible..

The point of attachment to the Customer service entrance conductors and service voltage for nonresidential installations must be approved by the Utility prior to the installation of the Customer's service equipment. Where more than one service entrance of the same voltage and phase to a building is necessary, the service entrance(s) must be grouped so that they may be served from the same set of service drops.

Pole-mounted transformer installations are limited to a size that can safely be supported. Installations requiring transformers that cannot be safely mounted on poles must be served by pad mount transformers. A Customer whose load may require 300 kilovolt-amperes or more of installed transformer capacity must consult the Utility to determine what the installation requirements will be.

4-2.21 Overhead Service to Manufactured Homes with Factory Installed Meter Bases

Overhead service to manufactured homes with factory installed meter bases will be provided under the same requirements as outlined in this specification book.

4-2.22 Underground Service, General

Before making any preparation for underground service, the Customer or his representative must obtain approval and construction standards from the Utility covering the proposed installation and the Customer's responsibilities.

Customers adequately served by existing overhead distribution facilities, but desiring underground service should contact the Utility for details of the Utility Electric Service Regulations for conversions. In areas where underground service is specified by local ordinances, special rules may apply.

The minimum wire size for residential service is 1/0 URD triplex.

4-2.23 Trenches, Conduit and Backfill Provided By The Customer

The Customer is to provide the trench conduit and wire to meet Utility requirements. Trenches are to be as straight as possible to avoid excessive bends from transformers or junction boxes to meterbase, trenches may only deviate a maximum of two (2) feet from a straight line. Existing conduit stubouts are provided but may be required to be moved to keep conduit straight in line with utility equipment and customer meterbase.

All metal conduit below ground level must be protected by a corrosion inhibiting wrap. (10 mill PVC pipe wrap), No wrap will be allowed through the unistrut clamp.

Call Before You Dig

Utah law requires The Blue Stakes One Call Location Center be notified at least two working days prior to excavation, The excavation must not be started until locations have been made or the Utility has informed the excavator that they have no facilities in the area. This notification maybe in made by calling 1-800-662-4111 (Utah toll free). More information is available at all Utility business offices.

Damaged equipment, electrical cable and/or materials resulting from carelessness by equipment operators will be repaired at the expense of the responsible party.

4-2.24 Depth

The trench depth shall have a minimum of 4 feet of back fill over top of primary conduit and a depth of 24 inches for secondary. Depth will be measured from final grade

4-2.25 Backfill

The Customer will be responsible for back filling trenches. Cables shall not be energized until backfill is complete.

Three-inch red warning tape will be placed in all primary trenches, two-(2) foot above conduit.

4-2.26 Joint Use

Telephone, TV, and other electrical communication cables may be placed in the same trench as the Utility cables, provided that the installation is in accordance with the Utility specifications and is mutually agreed upon by all parties concerned. See Figure 4-2.26-1.

The Utility normally will not install electrical cables in a common trench with non-electric utilities such as water, gas, and sewer, unless unusual conditions such as adverse soil or route restrictions exist. All such installations require the prior approval of the Utility.

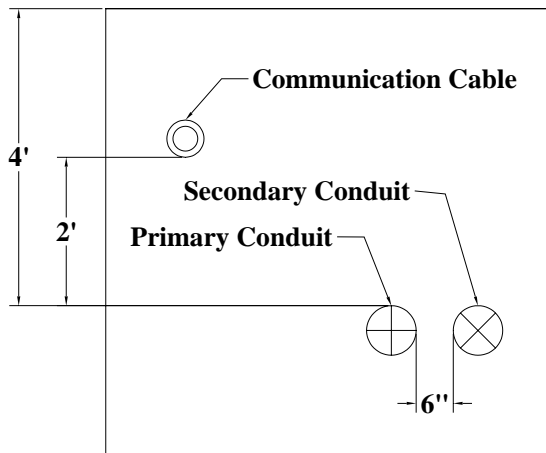


Figure 4-2.26-1 Joint Trench Use Separation Requirements

Communication conduits must be secured every 15 feet to keep separation during back filling.

Communication conduits for Utopia must be Orange Electrical Conduit.

4-2.27 Conduits

The Utility requires the use of conduit for all underground service installations. Rigid galvanized steel, IMC and gray electrical grade PVC schedule 40 (underground only) conduits are acceptable materials for conduits installed by the Customer. Generally conduits are installed in property fronts. All PVC Duct network must be inspected before back filling.

The following procedure for making cemented conduit joints will be used to join PVC to PVC

- Cut the conduit square and remove all burrs from both the inside and outside with a file or knife.
- Remove dirt, grease and moisture from the end of the conduit and inside the coupling.
- Test fit the conduit into the coupling. It should penetrate easily 1/4 to 3/4 of the way.

CAUTION: Cement that is jelly-like or that has not been used within one year of the date stamped on the can, should be replaced, and not used.

- Apply an even layer of cement to the conduit and inside the coupling. A second layer should be applied to the conduit if necessary to completely fill the gap.
- Assemble the joint immediately while the cement is still soft and wet. Forcefully bottom the conduit into the coupling. Turn the pipe or fitting during (but not after) assembly to distribute the cement evenly. Hold in position for 30 seconds. Wipe off excess cement.

- Allow 15 minutes setting time for good handling strength. The joint will be completely set within 24 hours.

Conduit must be approved by the Utility before installation. All 90-degree bends must be minimum 36 inch radius. All conduits must contain a suitable non-conductive pull line (2500 lbs mule tape.). All conduits shall be terminated at the open end with plastic bushings. Conduit sizes must be approved by the Utility.

When the conduit terminates at the Utility pole, consult the Utility for exact conduit location.

For a utility service lateral, the top of the conduit is to be a minimum of 24 inches below finished grade.

Stub-outs must be put at all transformers and splice box locations for future hookups. Stubouts must be at least 3 feet from transformers and splice boxes.

All metal conduits below ground level must be protected by a corrosion inhibiting wrap.

4-2.28 Clearances From Swimming Pools

Follow National Electrical Safety Code.

4-2.29 Underground Service To Residential, subdivisions

Underground services are provided under terms and condition detailed in Chapter 13 of Payson Cities Ordinances.

High voltage distribution systems in subdivisions will be loop connected where advantageous and be connected in a balanced three phase network if practical as determined by the Power and Light Director.

All high voltage distribution systems in subdivisions and mobile home parks will be installed according to design and layout prepared by an Electrical Engineer and Payson Power and Light. An as-built map of the power net work must be submitted to the department of Power and Light after installation. All changes must be pre-approved.

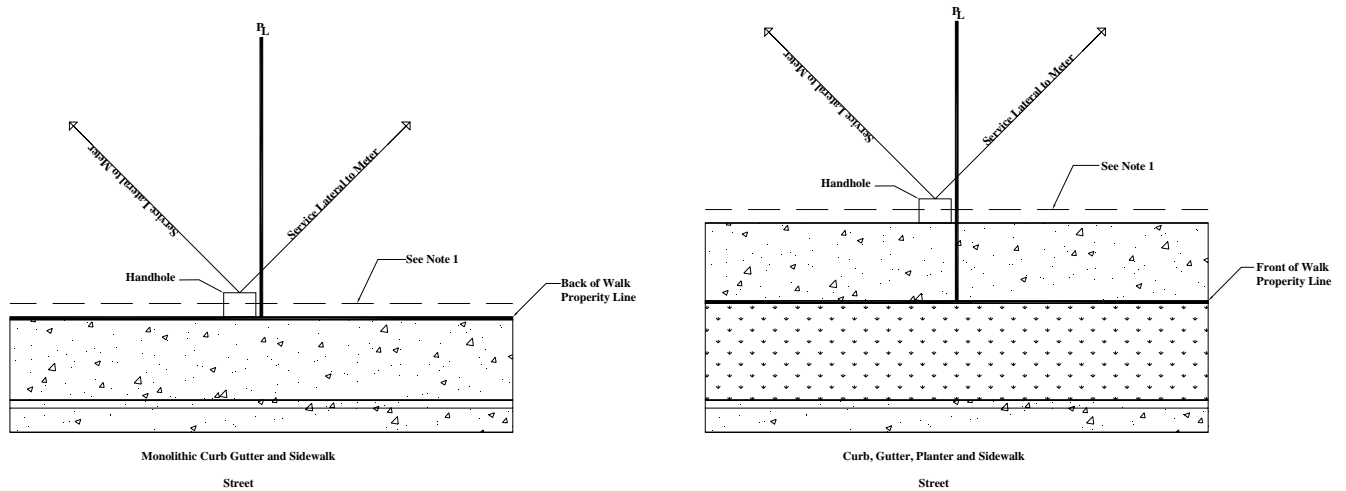
As per the Title 20 Subdivision Ordinance, all costs incurred, including labor and material, will be paid by the developer. The City will terminate primary connections and will pull any underground primary wire. The City will perform all work done on overhead energized conductors and the Contractor will pay all costs associated with any line extensions involving live primary wires.

Material and labor charges are to be paid prior to ordering of high voltage wire, connectors, and transformers. All secondary wire system will need to be bonded prior to installation.

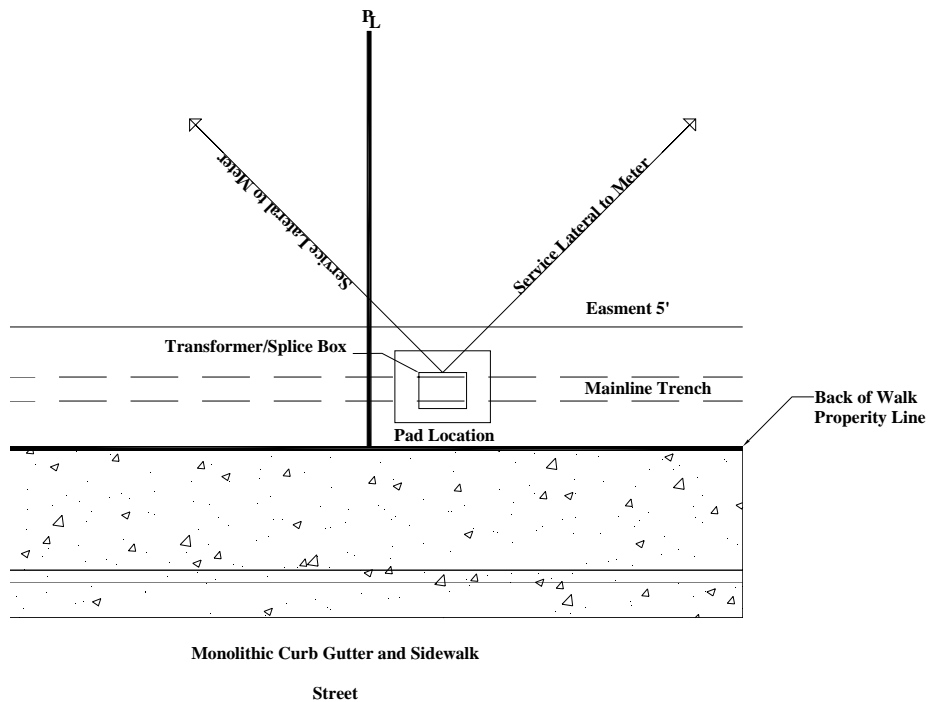
The Developer or subcontractor can install the secondary system; however they must be licensed with the city prior to beginning construction. All installations must be inspected and approved prior to burial of underground systems Costs incurred as a result of a grade change or transformer realignment shall be born by the subdivider/developer.

Individual residences within the subdivision will be responsible to trench, back fill, and install 600 Volt URD triplex cable in a PVC (sch 40) Duct from the secondary splice box or transformer to the meter main disconnect(rigid pipe and 36 inch sweep 90') according to the original design and layout.

All street lighting in Subdivision and Mobile Home parks shall be installed by the subdivider according to city specifications. After city final inspection of lighting system Payson City will assume ownership and will maintain said system.

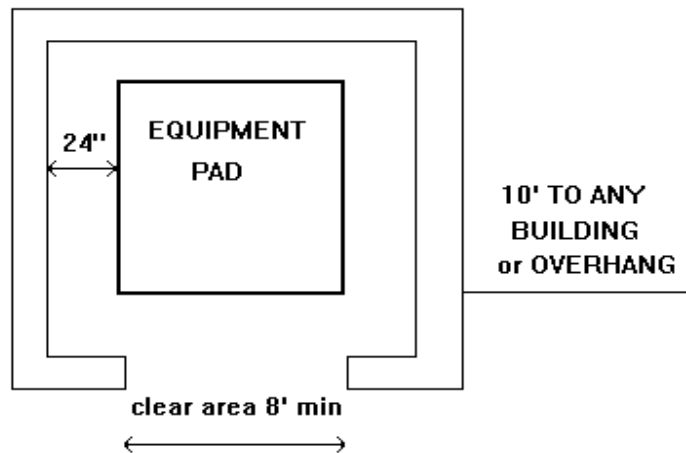


NOTE 1 Preferred location of trench is 12 inches back of sidewalk. Other locations between back of curb or street and property line may be approved. Two (2) inch secondary stubs (36" 90° sweeps only) are angled to service both lots from handhole. Locate splice boxes and transformers on one side of the property line.



NOTE 2 TRANSFORMERS AND SPLICE BOXES ARE TO BE SET 1 FOOT OFF SIDE PROPERTY LINE and 12 " behind sidewalk. Two (2) inch secondary stubs are angled to service both lots.

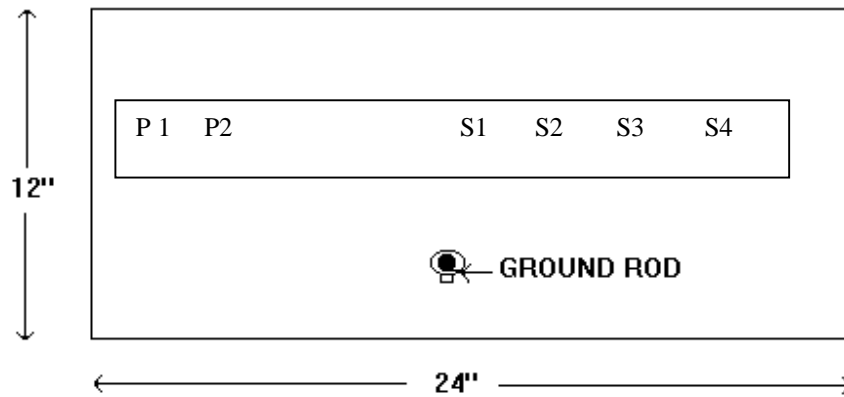
EQUIPMENT ENCLOSERS IN COMMERCIAL AREAS



NOTE 3: CLEARANCES ARE ALSO REQUIRED FOR RESIDENTIAL EQUIPMENT CUSTOMER FENCING OR OBSTRUCTIONS ADJACENT TO PROJECT EQUIPMENT INSTALLATIONS

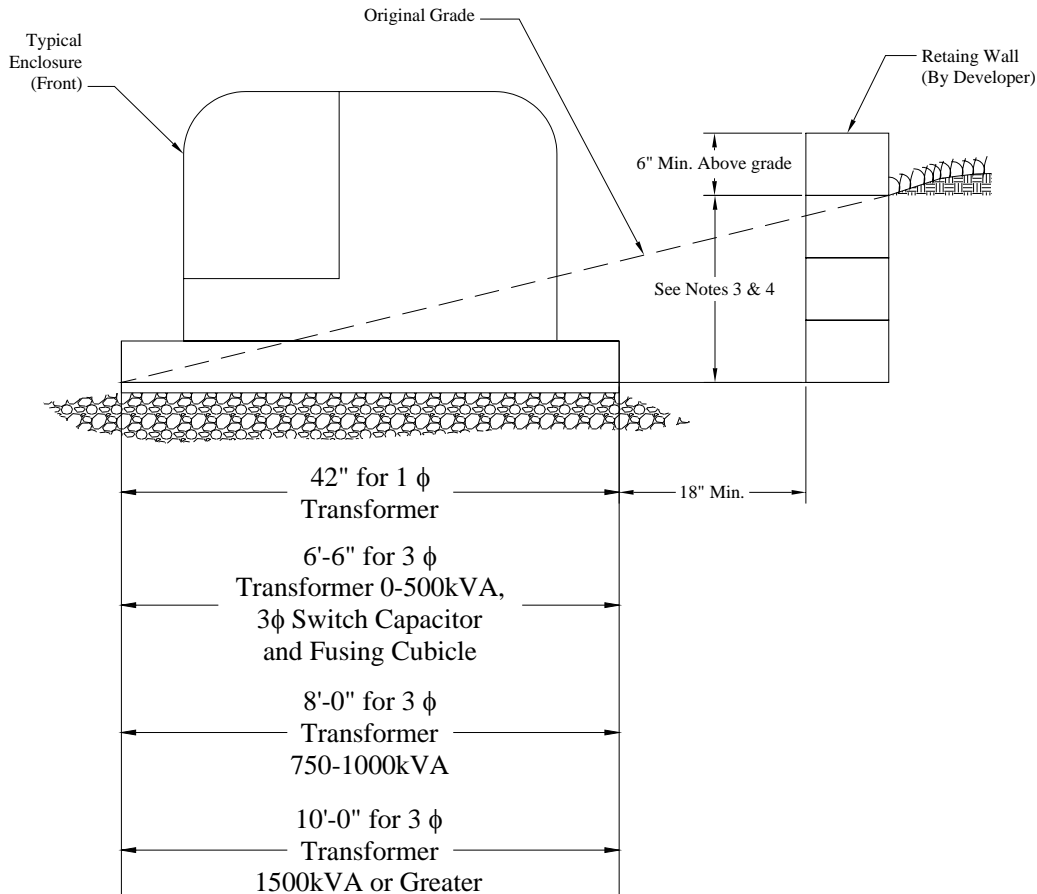
1. No building addition, building overhang or structure shall be built closer than 10 ft. horizontally from the edge of any equipment pad unless approved in writing by the Utility.
2. There shall be no roof or covering over any pad-mounted equipment.
3. A gate the full width of the opening is permissible across the front or equipment. The gate may be of solid material if a 6 inch clearance for ventilation is maintained between bottom of gate and ground level. The gate is allowed to be lower than 6 inches if constructed of mesh bar, louver or similar ventilating material. Gate must open at least 90 degrees for full opening width access and must be free of locks which would inhibit access by utility personnel. Any gate must be furnished by customer.
4. Obstructions, including but not limited to, fences, trees, shrubs, or other similar large vegetation and large rocks, shall NOT be permitted within 10 feet of the opening side of equipment. The back and sides of all transformers and equipment require at least 18 inches of clearance from edge of the pad to any obstruction. For front or side lot easements, the clearance to the back of pad-mounted equipment is defined by the easement line.
5. Hinged gate(s), when open, may not block the exit route. When gate(s) is in the maximum open position, the exit shall allow a 24 inch wide minimum opening, a minimum of 6 feet from the equipment pad.
6. When equipment enclosures are constructed in commercial areas, the exit route shall be directly away from the opening side of the pad-mounted equipment

CONDUIT ARRANGEMENT IN PAD



NOTE 4:

1. Connect ground rod to transformer ground lugs with a minimum of # 6 copper wire.
2. Top of ground rod and all conduits are to be 4" above final grade.
3. Install non-metal plugs in all conduit stub-ups or seal with duct tape.
4. 2500 lbs mule tape must be installed in all conduits and capped
5. Stubouts do not need string installed.



NOTE 5:

1. When it becomes necessary to notch-out or fill a slope to install an enclosure, the cleared area should be of sufficient size to accommodate the enclosure and shoring. Slope in front of enclosure shall not be greater than 20 inches in 8 feet.
2. Area under and behind pad must be level and compacted to 80% Density (AASHTO, T-99), as indicated.
3. A wall is required if this dimension is 12" or more.
4. Side walls also required if this dimension is over 18". Side wall to be 6@ above existing grade and 18" from side of transformer pad.
5. All grading is to be done by developer.
6. If assistance is required, contact the Utility.

4-2.30 Nonresidential Underground Service

For underground service to commercial or industrial buildings or projects, the Customer or developer is responsible for all trenching, back filling, conduit, wire terminators, pulling and terminating secondary wire, meters and transformer pads or vaults within the project.

Where a padmounted transformer, current transformer enclosure, or other equipment are installed in a location where it might be struck by a motorized vehicle, the Customer is to install Utility-approved barrier posts to protect this equipment.

Primary cables will be installed by the Utility in Customer provided conduit. The Utility will install the conduit up the pole. The Utility will designate the proper position on the pole for the conduct prior to the contractor installation of the 90-degree bend and 10 foot of Rigid or IMC at the base of the pole

All conduits shall be capped at both ends at the time of installation to keep free of dirt and debris.

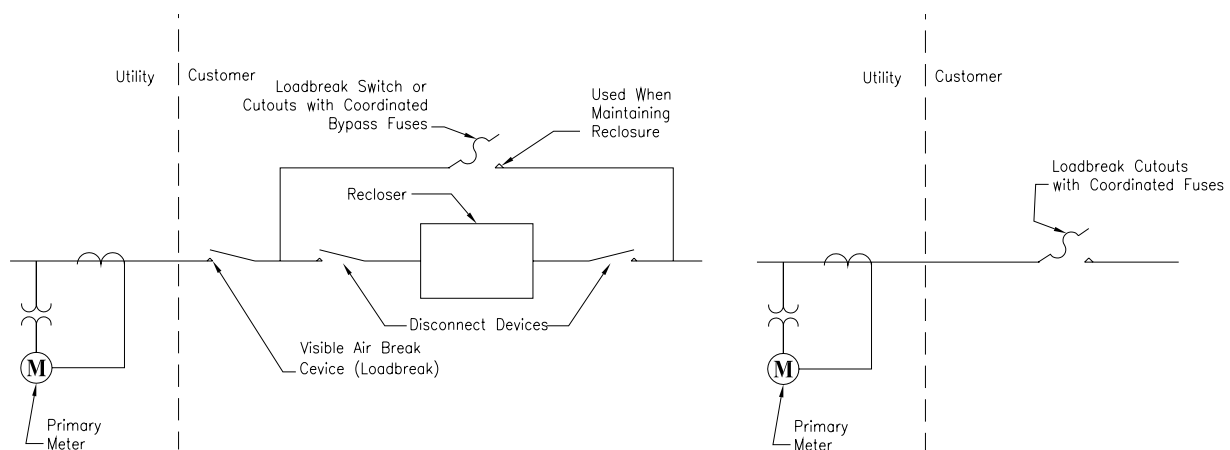
4-2.31 Service at Primary Voltage General

The Utility will provide primary voltage delivery to qualified Customers without transformation, from the high-voltage or primary" distribution system under terms and conditions set forth in which provide that: (1) The distribution system's nominal voltage is used; (2) Service at primary voltage will not, in the Utility's judgment, adversely affect the operation of the Utility's distribution System or service to other Customers; and (3) Such service Can be supplied in a safe and reliable manner. All Customers requesting service at a primary voltage must agree to those special requirements that the Utility may from time to time establish as necessary,

4-2.32 Customer Equipment

The Customer receiving service at primary or higher Voltage shall own and maintain poles, conductors, cables, transformers and associated protective devices in accordance with the current filed Electric Service Regulations and tariff or special contract. All such equipment, its arrangement, and its operation will be subject to Utility approval. Except by prior written approval of the Utility, three-phase transformers connected to primary voltage lines are to be in conformance with the utility's transformer specification.

The customer will provide a disconnecting means, such as Option I or Option 2 as shown below, at the point of delivery, to disconnect the customers system-from the Utility's system. Utility must approve disconnecting means prior to installation.

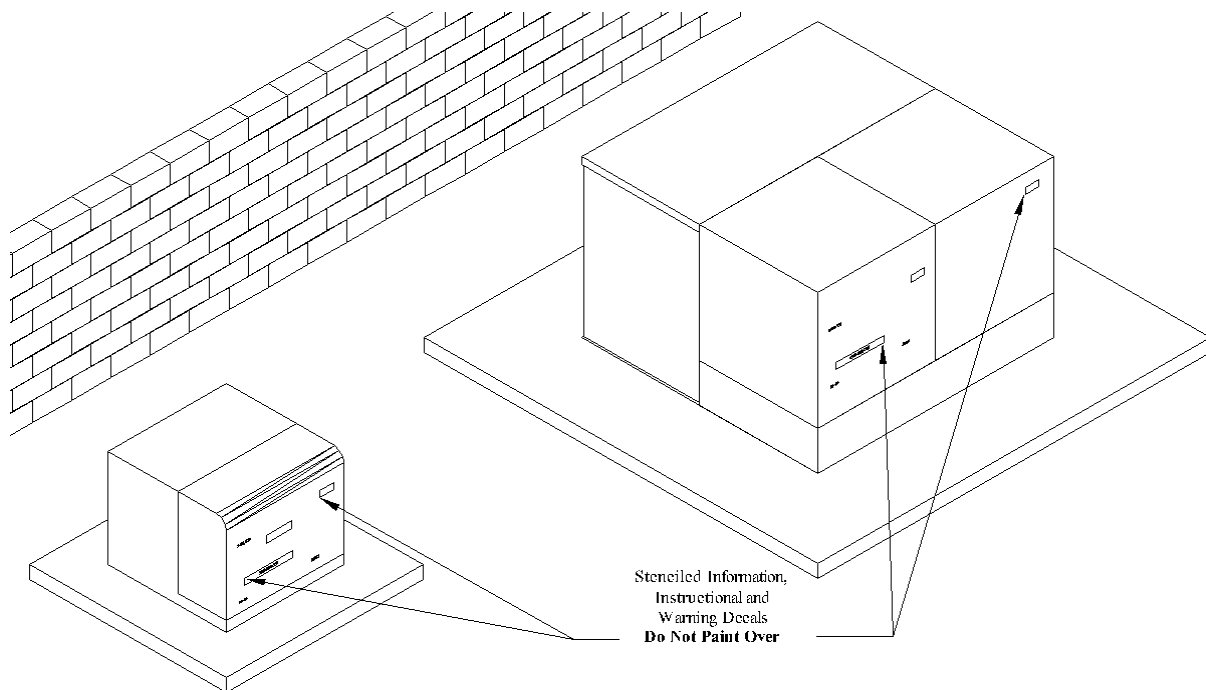


To assure timely restoration of service in case of failure, all primary voltage Customer owned wiring and equipment, including transformers and associated protective devices, should be the same types and have the same characteristics as those used by the Utility. The arrangement and operation of such equipment will be subject to the utilities approval.

4-2.33 Utility Equipment

The Utility will normally provide at Customer expense the pole or a padmounted enclosure, containing the primary metering equipment. The point of interconnection, or the padmounted primary metering enclosure when the service is underground, shall be designated as the point of delivery.

4-2.34 Painting of Utility Equipment



NOTES:

1. At the customer's request and expense, the customer may paint pad-mounted equipment such as transformers, switching and fusing cubicles, and capacitor enclosures. Substation fences or other equipment are not allowed to be painted by the customer. The customer must notify the district prior to painting utility equipment by calling 465-5270.
2. All identifying lettering, numbering, warning signs, handles, locks and pads will not be painted over.
3. The utility retains the right to charge customers full cost of restoring its equipment to acceptable condition (repainting to original utility color) if:
 - a. The customer fails to comply with these requirements.

- b. The painting done by the customer on utility equipment is not maintained by the customer.
- 4. Color choices used by the customer shall be complimentary to the surroundings of the equipment. It is recommended that to prevent conflicts, color acceptance should be obtained from the utility prior to painting.
- 5. If for any reason, the utility has to replace a piece of pad mounted equipment that has been painted by a customer, the new equipment will be standard utility color - if the customer wants to paint and change the color of the equipment after replacement, they may do so (see note 1).
- 6. Preparation of utility equipment is limited to cleaning the surface using a detergent and water. No sanding or chemicals solvents are to be used on the painted surface of the equipment.

4-2.35 4-2.35 Padmount Transformer specifications

Padmounted Transformers must be new and constructed and tested in accordance with ANSI C57.12.25 and ANSI C 57.12.00 latest revisions. All transformers must meet Western Underground Committee Tamper Proof Guide 2.13; coils must be wound with thermally activated, epoxy coated paper. Transformers must meet EEI Finishing Guidelines latest revisions, finishing certification must be submitted. All transformers must be designed to pass short circuit test in accordance with ANSI Publication C57.12.00 latest revisions. All transformers must be 5 inches above final grade.

Must be Oil filled, **NON-PCB, less than 1 PPM** dead front, loop feed, externally replaceable bayonet fuse with load sensing link, bayonet drip shield, 2 high voltage wells with bushing inserts, automatic pressure relief device, three all purpose low voltage studs 5/8" in diameter.

95 KV BIL high voltage, 30 KV BIL low voltage, 65° C temperature rise, door to swing from front of transformer.

The guaranteed estimated average no load and full load losses must be based on a base cost evaluated cost at \$ 5.00 per watt for no load losses and \$ 2.00 per watt for full load losses. Actual loss test results on transformer must be supplied at the time of delivery.

Single Phase transformer sleeve size will be at least 42" X 42" for transformers without fins 60" X 42" with fins with an opening of 12" X 24" with 2 unistrut clamps, spring nuts, and bar or equivalent. Must be R.E.A. approved.

Two Bronze grounding connectors Fargo GC-207 or equivalent.

Transformer secondary bus connectors shall be insulated on the phases and equipped with 6 positions. Connectors shall have pre-applied oxide inhibitor. Connectors must meet or exceed ANSI C119.4-1991 and C119.1-1986; example: CONNECTOR MANUFACTURING CO. Cat # NSC350-6I. Must except wire size # 10 AWG to 350 MCM.

4-2.36 Street Light Specifications

All street lighting in Subdivision shall be installed by the subdivider. Type of street light to be determined by utility. Street lights will be of cobra head style or lamp post style. Cobra head shall

be fitted with a trigger latch for no tool opening of the fixture for installation and service. Shall be equipped with separate power pad, drop down door with quick connect or disconnect electric plug. Shall be equipped with a instant on, 1800 Watt Photo Cell. All lamp wattage will be 100 Watt HPS or Metal Halide unless specified by the Utility. An Acrylic type lens cover will be used with refractor to push all light down to the ground.

Ordering data: 120 Volt, Regulated Ballast, High Power Factor, Standard Distribution Pattern type II.

Pole shall be manufactured for the purpose of lighting and be corrosion resistant with a minimum light height of 20' above ground level Light pole will have at least a 6 foot arm if cobra head is used. A pole height of 14' above ground shall be used if lamp post type. Shall be equipped with a service and inspection opening with cover 12" to 24" above ground level

4-2.37 Splice Box and Connector Specification

Connectors will meet or exceed ANSI C119.4-1991 and C119.1-1986. Must except wire size #12 AWG to 350 MCM. Secondary underground junction connectors must all be insulated and water proof and equipped with the number of positions suitable for location of connectors. They will have pre-applied oxide inhibitor, with silicone grease on all rubber joints. EXAMPLE: CONNECTOR MANUFACTURE CO. Cat. # SSBC 350-6LI.

Splice box shall be a minimum of 16" X 25" X 15" with bolt down lid. EXAMPLE: Carson industries Model 1324CP-12L.

4-2.38 Sectionalizing Enclosures Specifications

Single Phase Sectionalizing Enclosures:

Shall accommodate at least a 4 position dead front bus or greater if specified by Utility.

Constructed of a minimum of 12 gauge steel.

Must have at least 1 parking bushings.

Door latching shall meet or exceed ANSI C57.12.28-1988 and fitted with penta head stainless steel bolt recessed below Padlocking provisions.

Shall be constructed to accommodate a fiberglass boot that will be supplied with sectionalizer by contractor.

Three Phase Sectionalizing Enclosures:

Shall accommodate at least three, 4 position dead front bus or greater if specified by Utility.

Constructed of a minimum of 12 gauge steel.

Must have at least 3 parking bushings.

Door latching shall meet or exceed ANSI C57.12.28-1988 and fitted with penta head stainless steel bolt recessed below Padlocking provisions.

Shall be constructed to accommodate a fiberglass boot that will be supplied with sectionalizer by contractor.

INSTALLATION INSTRUCTIONS / PAD SPECIFICATIONS

PRECAST OR CAST-IN-PLACE PAD FOR THREE PHASE TRANSFORMER

0-500 KVA

1. The subgrade and trench backfill shall be compacted to 90% minimum of the standard proctor density. ABC backfill shall not be used under the pad.
 - a) 1/2 sack lean mix backfill (slurry consisting of aggregate in accordance with ASTM-C33, No.57, and 1/2 sack Portland cement per cubic yard) is an approved alternate.
 - b) The subgrade shall be inspected by Utility coordinators before the concrete pad is poured.
2. Top of pad shall be 5" minimum above surrounding grade and at sufficient elevation to prevent flooding.
3. Pad shall be located to be readily accessible and oriented to provide a minimum of 8 feet clear working space at front of unit. Maintain min. clearance of 18" at sides & back of pad.
4. When pad is cast in place, stub-up conduit 2' above the pad. Do not encase conduit in concrete. Install temporary protective covers to keep debris out of all conduits. See electrical plans for size and number of conduits.
5. Install 5/8"x 8 ft. copper clad ground rod in the high voltage opening of the transformer pad. the top of the ground rod shall be 2 inches above top of pad. The customer shall supply and install the ground rod.
6. **For precast:** concrete shall be mag class AA (fc 4000psl @28 days) with aggregate per ASTM C33, grading no. 57; slump range 3" min. to 5" max. ; water cement ratio =.5 max.
7. **For cast-in-place:** concrete shall be mag class b (fc =2500psi @ 28 days) with aggregate per ASTM C33, grading no. 57; slump range 3" min. to 5" max.; water cement ratio = .6 max.
8. Reinforcing shall be per ASTM A615, GR.60, #4 bars spaced as shown (equally).
9. Pad anchors (precast only): Dayton superior p-52 SL 4 ton x 4 3/4" length. Use round recess when casting pad. Top of anchor shall be 9/16" below pad surface.
10. Surface shall be flat to within 1/16" across top surface. Top edge to be 45' chamfer.
11. Primary and Secondary openings to depend on individual transformer opening size.

INSTALLATION INSTRUCTIONS / PAD SPECIFICATIONS

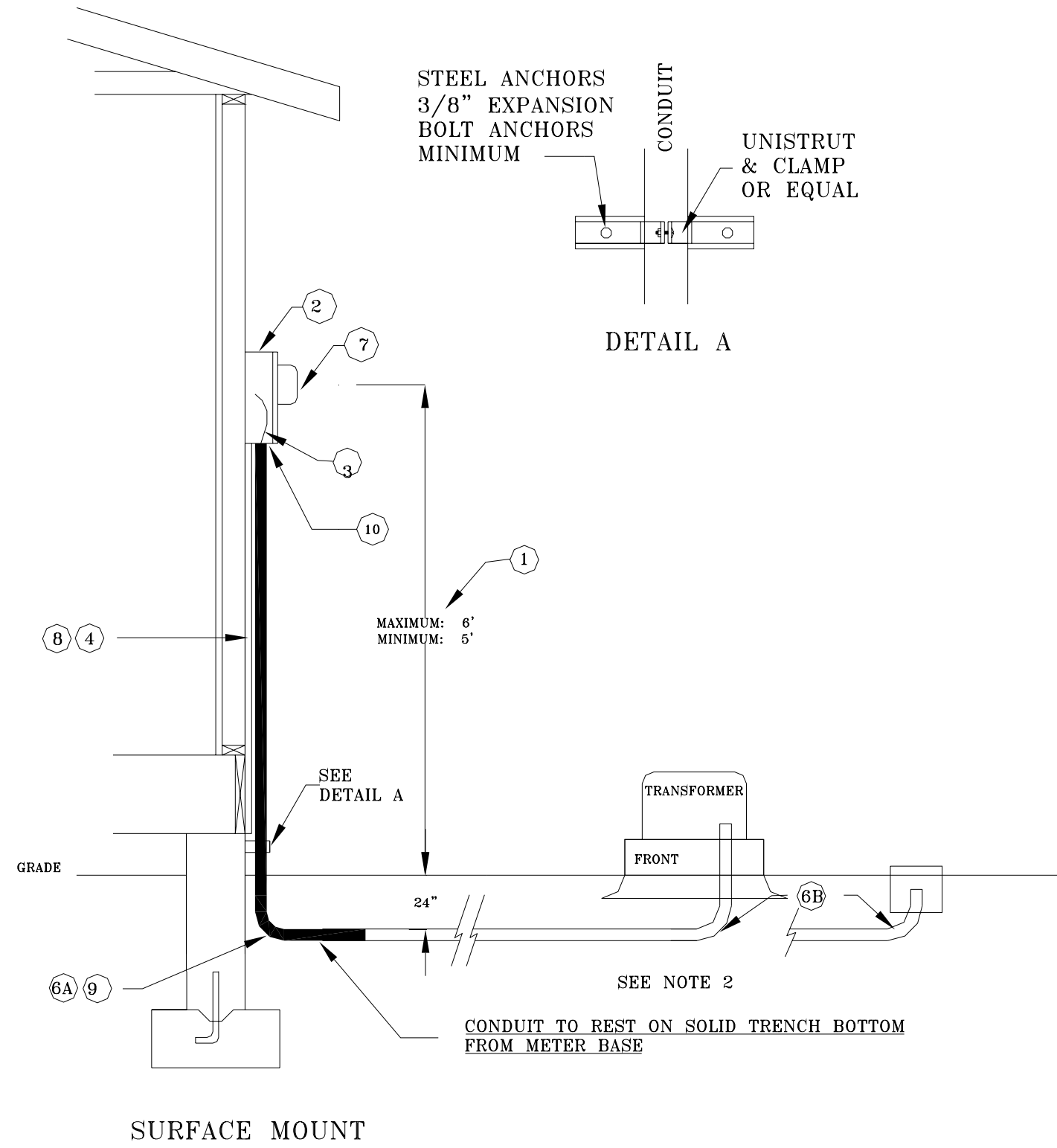
PRECAST OR CAST-IN-PLACE PAD FOR THREE PHASE TRANSFORMER INSTALLATION

750-1000 KVA

1. The subgrade and trench backfill shall be compacted to 90% minimum of the standard proctor density. ABC backfill shall not be used under the pad.
2. 1/2 sack lean mix backfill (slurry consisting of aggregate in accordance with ASTM-C33, No.57, and 1/2 sack Portland cement per cubic yard) is an approved alternate.
3. The subgrade shall be inspected by Utility coordinators before the concrete pad is poured.
4. Top of pad shall be 4" minimum above surrounding grade and at sufficient elevation to prevent flooding.
5. Pad shall be located to be readily accessible and oriented to provide a minimum of 8 feet clear working space at front of unit. Maintain min. clearance of 18" at sides & back of pad.
6. When pad is cast in place, stub-up conduit 2" above the pad. Do not encase conduit in concrete. Install temporary protective covers to keep debris out of all conduits. See electrical plans for size and number of conduits.
7. Install 5/8"x 8 ft. copper clad ground rod in the high voltage opening of the transformer pad. The top of the ground rod shall be 2 inches above top of pad.
8. For precast: concrete shall be mag class AA (fc = 4000psl @28 days) with aggregate per ASTM C33, grading no. 57; slump range 3" min. to 5" max. ; water cement ratio =5 max.
9. For cast-in-place: concrete shall be mag class b (fc = 4000psi @ 28 days) with aggregate per ASTM C33, grading no. 57; slump range 3" min. to 5" max.; water cement ratio = .6 max.
10. Reinforcing shall be per ASTM A615, GR.60, #4 bars spaced as shown (equally).
11. Pad anchors (precast only): Dayton superior p-52 SL 4 ton x 4 3/4" length. Use round recess when casting pad. Top of anchor shall be 9/16" below pad surface.
12. Surface shall be flat to within 1/16" across top surface. Top edge to be 45' chamfer.
13. Primary and Secondary openings to depend on individual transformer opening size.

INSTALLATION INSTRUCTIONS & PAD SPECIFICATIONS**CAST-IN-PLACE PAD****FOR THREE PHASE TRANSFORMER****1500-2500 kVA**

1. The subgrade and trench backfill shall be compacted to 90% minimum of the standard proctor density. ABC backfill shall not be used under the pad.
2. 1/2 sack lean mix backfill (slurry consisting of aggregate in accordance with ASTM-C33, No.57, and 1/2 sack Portland cement per cubic yard is an approved alternate.
3. The subgrade shall be inspected by Utility coordinators before the concrete pad is poured.
4. Top of pad shall be 4' minimum above surrounding grade and at sufficient elevation to prevent flooding.
5. Pad shall be located to be readily accessible and oriented to provide a minimum of 8 feet clear working space at front of unit. Maintain min. clearance of 18" at sides & back of pad.
6. When pad is cast in place, stub-up conduit 2" above the pad. Do not encase conduit in concrete. Install temporary protective covers to keep debris out of all conduits. See electrical plans for size and number of conduits.
7. Install 2 5/8"x 8 ft. copper clad ground rod in the high voltage opening of the transformer pad. the top of the ground rod shall be 2 inches above top of pad.
8. Concrete shall be mag class B ($f_c = 4000$ psi @28 days) with aggregate per ASTM C33, grading No. 57; slump range 3" min. to 5" max. ; water cement ratio = . 6 max.
9. Reinforcing shall be per ASTM A615, GR.60, #4 bars spaced as shown (equally).
10. Surface shall be flat to within 1/16" across top surface. Top edge to be 45' chamfer.
11. Primary and Secondary openings to depend on individual transformer opening size.



1. HEIGHT OF METER 5'6" AND NOT TO EXCEED 6', AND NOT LOWER THAN 5'.
2. METER BASE FURNISHED AND INSTALL BY THE CUSTOMER. (A MANUAL BYPASS IS REQUIRED ON 3 PHASE)
3. 1/0 URD MINIMUM SIZE SERVICE WIRE PROVIDED BY CUSTOMER.
4. CONDUIT TO BE RIGID METALLIC OR IMC FROM GROUND TO METER BASE, (MIN 2") FURNISHED AND INSTALLED BY CUSTOMER.
5. CONDUIT FROM BUILDING TO CONNECTION POINT WILL BE GRAY PVC-SCH. 40 OR EQUAL, FURNISHED AND INSTALLED BY THE CUSTOMER CONDUIT WILL COMPLY WITH THE NATIONAL ELECTRIC CODE.
6. A 36" SWEEP 90 ELBOW BELOW METER BASE WILL BE RIGID OR IMC.
B 36" SWEEP 90 ELBOW AT SECONDARY CONNECTION BOX WILL BE SCH 40 PVC.
7. PAYSON CITY POWER WILL INSTALL METERS.
8. CONDUIT SIZES: (MINIMUM)
2" - conduit for 100 amp service.
2" - conduit for 200 amp service.
3" - conduit for 3 phase, 200 amp service.
9. METAL CONDUIT BELOW GRADE WILL BE PROTECTED BY A CORROSION INHIBITING WRAP. (10 MILL. PVC PIPE WRAP)
10. ALL METAL TERMINATIONS SHALL HAVE BUSHINGS OR METER BASE HUB.

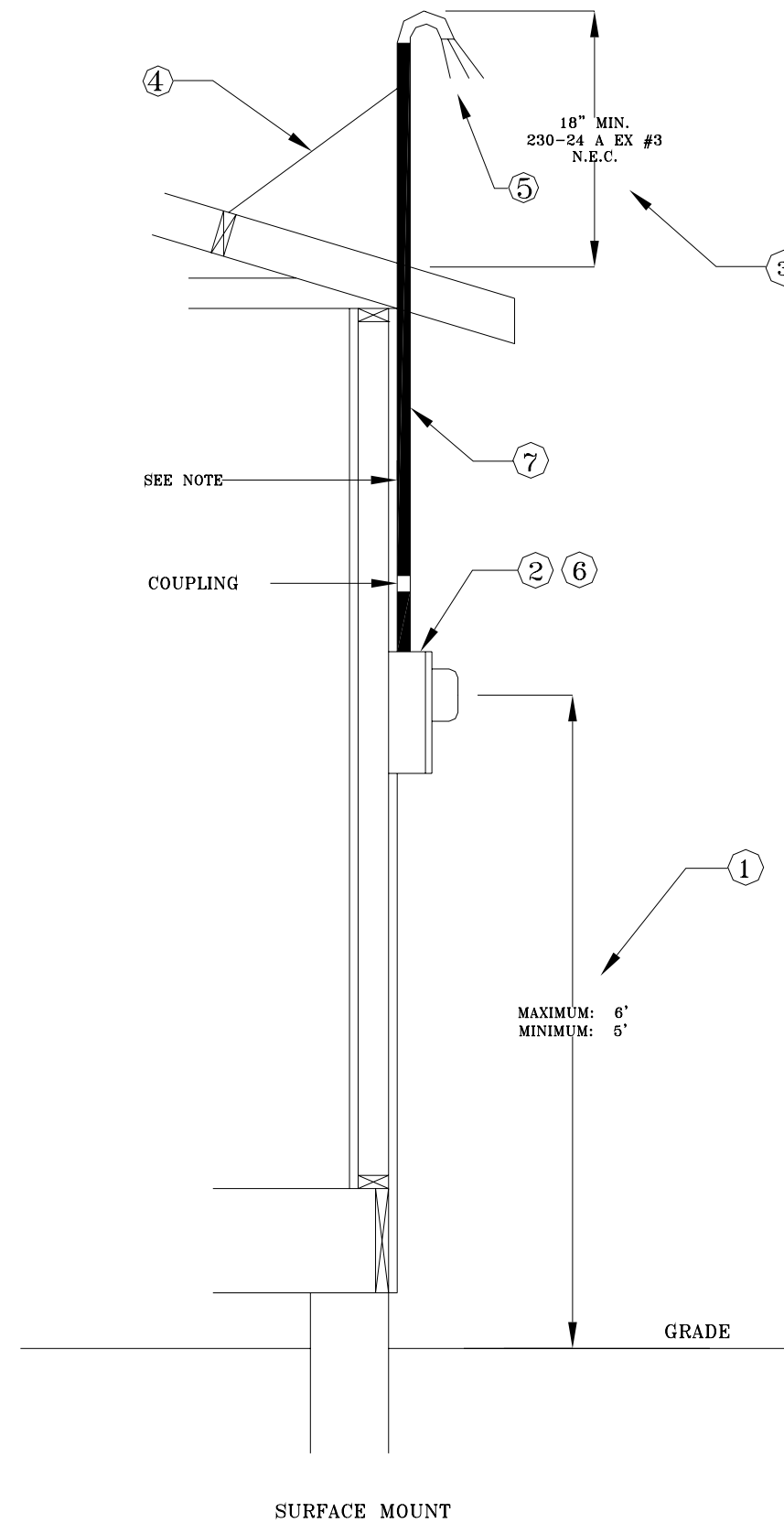
NOTE:

1. ALL SHADED AREA WILL BE RIGID METALLIC CONDUIT OR IMC.
2. MINIMUM DEPTH OF SERVICE TRENCH TO BE 24" TO TOP OF CONDUIT.
3. GROUNDING TO MEET NEC.
4. PVC TAPE WRAP ON ALL METAL PIPE BELOW CLAMP, CONTINUOUS BELOW GRADE TO PVC PIPE.

PAYSON CITY CORPORATION
ELECTRIC DEPARTMENT
SPECIFICATIONS FOR UNDERGROUND SERVICES
200 AMPS MAX
(SINGLE PHASE AND THREE PHASE)

DRAWN BY: GJR _____
APPROVED BY: RC _____
DATE: REVISED 1/27/05

DRAWING NO. 02-50-0001



1. HEIGHT OF METER 5'6" AND NOT TO EXCEED 6', AND NOT LOWER THAN 5'.
2. METER BASE FURNISHED AND INSTALL BY THE CUSTOMER. (A MANUAL BYPASS IS REQUIRED ON 3 PHASE)
3. STANDPIPE SHALL BE A MINIMUM 2" RIGID METALLIC, OR IMC AND EXTEND ABOVE ALL ROOFS A MINIMUM OF 18" AS OF NEC 230-24.
4. BRIDAL GUY TO BE INSTALLED IF NECESSARY PER NESC.
5. CONDUCTORS FURNISHED AND INSTALLED BY CUSTOMER TO EXTEND 18" FROM THE WEATHER HEAD AND SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE.
6. ALL METAL TERMINATIONS SHALL HAVE BUSHINGS OR METER BASE HUB.
7. CONDUIT SIZES: (MINIMUM)
 - 2" - conduit for 100 AMP service
 - 2" - conduit for 150 AMP service
 - 2" - conduit for 200 AMP service

NOTE:

1. ALL SHADED AREA WILL BE RIGID METALLIC CONDUIT OR IMC.
2. NO COUPLING WITHIN 10' OF WEATHER HEAD.

PAYSON CITY CORPORATION
ELECTRIC DEPARTMENT
SPECIFICATIONS FOR OVERHEAD SERVICES 200 AMPS MAX
(SINGLE PHASE AND THREE PHASE)

DRAWING NO. 02-50-0002

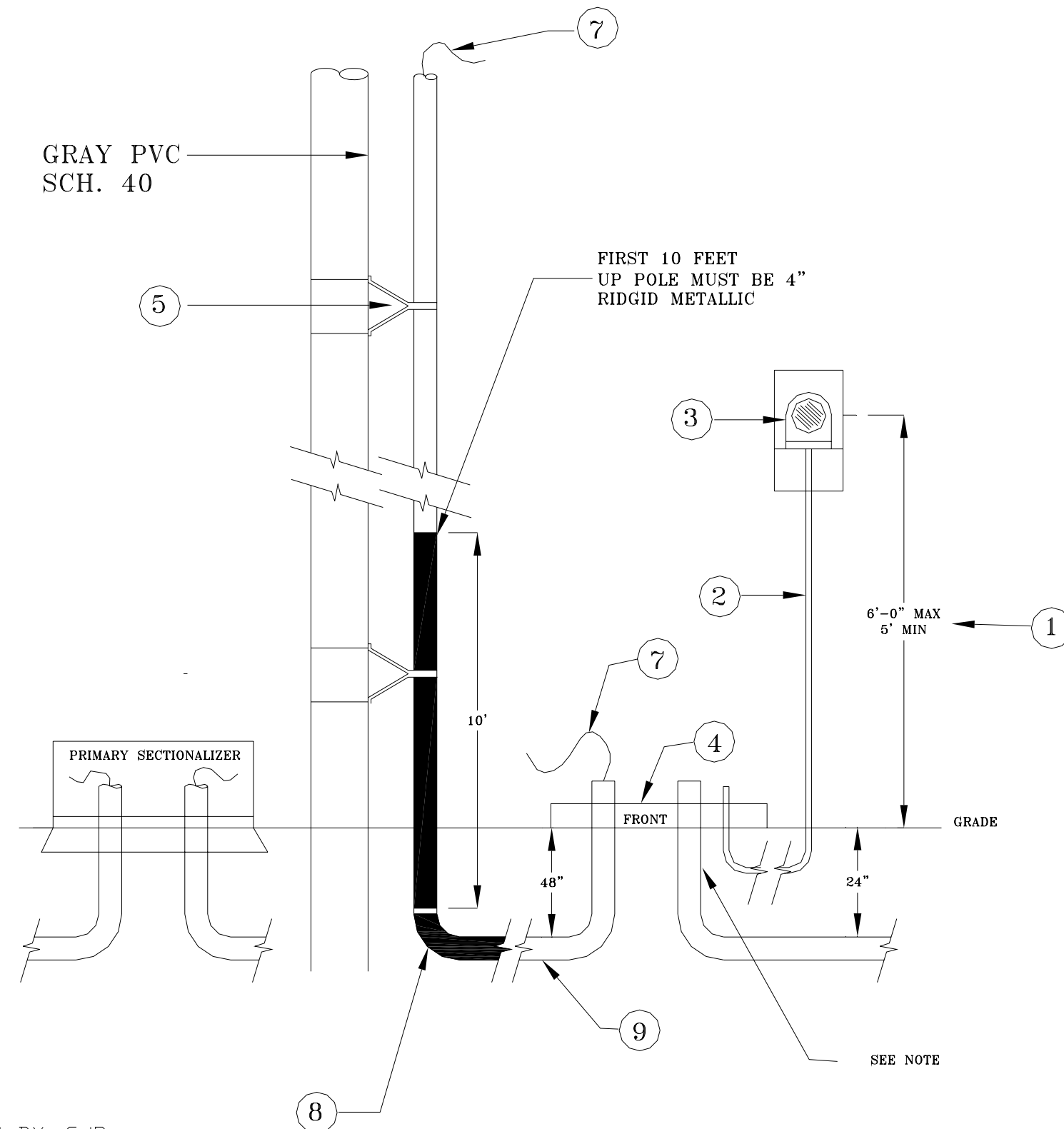
DRAWN BY: GJR _____
APPROVED BY: RC _____
DATE: REVISED 1/27/2005

1. HEIGHT OF METER NOT TO EXCEED 6', AND NOT LOWER THAN 5'.
2. METERING CONDUIT : METALLILC 1" RIGID CONDUIT. TO BE LOCATED NEAR THE FRONT OF PAD SECONDARY OPENING AND HAVE GROUND WIRE AND BUSHING ATTACHED. ALL TO BE FURNISHED AND INSTALLED BY THE CUSTOMER, OR MAY BE ATTACHED TO TRANSFORMER METERBASE FOR 3 PHASE.
3. METER SOCKET: INSTALLED BY PAYSON CITY POWER. CALL 465-5270 FOR MOUNTING INFORMATION.
4. TRANSFORMER OR VAULT SLEEVE: FURNISHED AND INSTALLED BY CUSTOMER.
5. CUSTOMER TO FURNISH STAND-OFF BRACKETS, CLAMPS AND LAGS, MINIMUM OF ONE FOR EVERY TEN FOOT LENGTH OF CONDUIT.
6. A - 90 ELBOW BELOW METER BASE WILL BE RIGID OR IMC.
B - ELBOW AT SECONDARY CONNECTION BOX WILL BE SCH 40 PVC.
C - ELBOW MUST BE A LONG SWEEP 36" 90
7. CUSTOMER TO FURNISH AND INSTALL 2500 LBS MULE TAPE FOR PULLING IN PRIMARY CONDUCTOR WIHT TEN FEET EXTENDING OUT OF EACH END.
8. METAL CONDUIT BELOW GRADE WILL BE PROTECTED BY A CORROSION INHIBITING WRAP. (10 MILL. PVC PIPE WRAP) ALL 90 ELBOWS WILL BE 36" SWEEPS. WRAP SHALL NOT GO THROUGH CLAMPS.
9. CONDUIT FROM BUILDING TO CONNECTION POINT WILL BE GRAY PVC-SCH. 40 OR EQUAL, FURNISHED AND INSTALLED BY THE CUSTOMER CONDUIT WILL COMPLY WITH THE NATIONAL ELECTRIC CODE.

NOTE:

1. ALL SHADED AREA WILL BE RIGID METALLIC CONDUIT.
2. MINIMUM DEPTH OF SERVICE TRENCH TO BE 24".
3. GROUNDING TO MEET NEC.
4. MINIMUM DEPTH OF TRENCH FOR PRIMARY LINE SHALL BE 48" FORM TOP OF CONDUIT.

PAYSON CITY CORPORATION
ELECTRIC DEPARTMENT
SPECIFICATIONS FOR UNDERGROUND SERVICES 200 AMPS MAX
(THREE PHASE)



DRAWN BY: GJR _____
APPROVED BY: RC _____
DATE: REVISED 1/27/2005

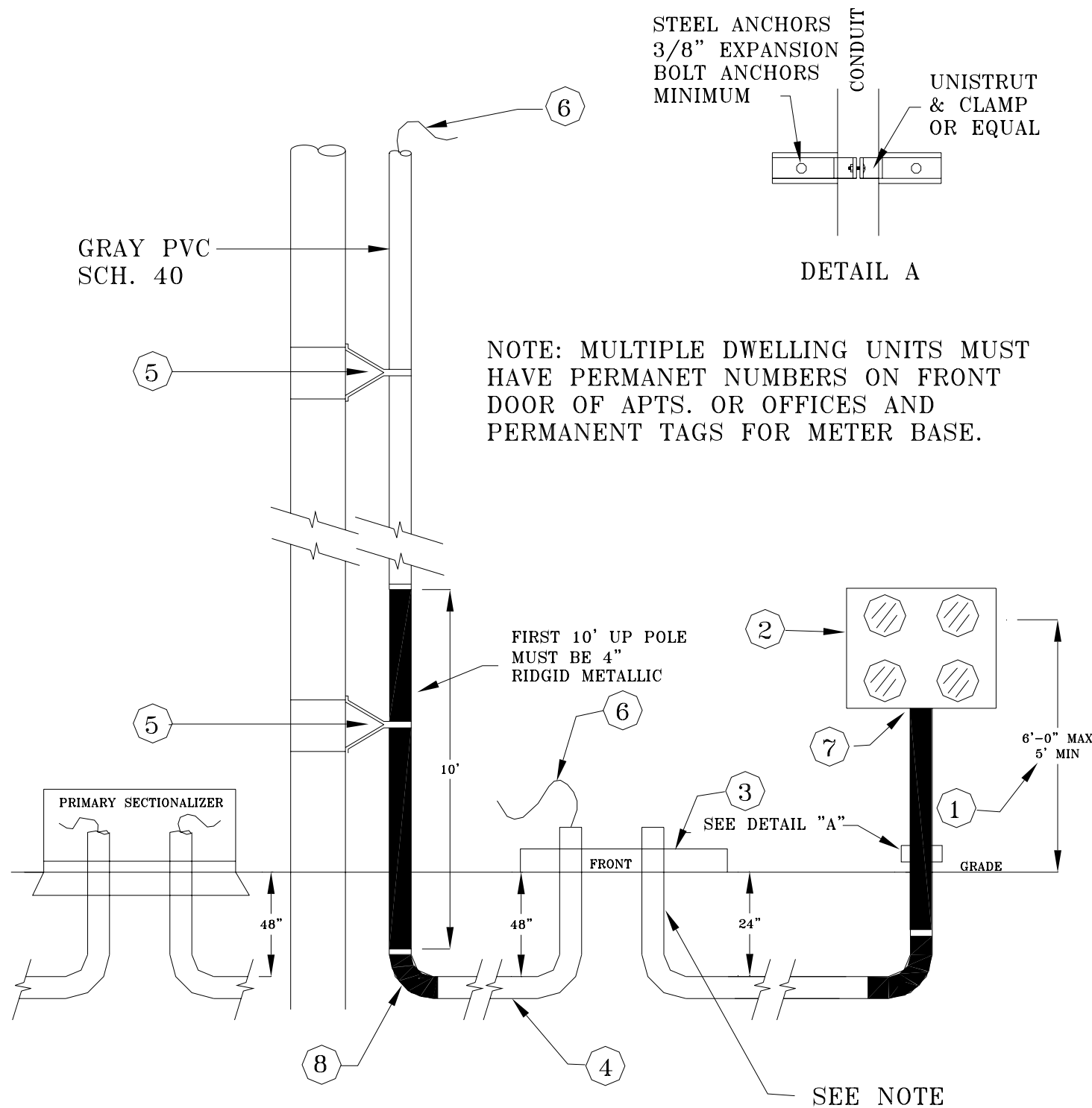
1. HEIGHT OF METER 5'6" AND NOT TO EXCEED 6', AND NOT LOWER THAN 5'.
2. METER SOCKET TO BE FURNISHED AND INSTALLED BY THE CUSTOMER.
3. TRANSFORMER OR VAULT SLEEVE FURNISHED AND INSTALLED BY CUSTOMER. TO GRADE.
4. PRIMARY CONDUIT: 4" GRAY PVC-SCH. 40 OR EQUAL, AND MEET NESC. FURNISHED AND INSTALLED BY THE CUSTOMER.
5. CUSTOMER TO FURNISH STAND-OFF BRACKETS, CLAMPS AND LAGS, MINIMUM OF ONE FOR EVERY TEN FOOT LENGTH OF CONDUIT.
6. CUSTOMER TO FURNISH AND INSTALL 2500 LBS MULE TAPE FOR PULLING IN PRIMARY CONDUCTORS WITH TEN FEET EXTENDING FROM EACH END.
7. ALL METAL TERMINATIONS SHALL HAVE BUSHINGS OR METER BASE HUB.
8. METAL CONDUIT BELOW GRADE WILL BE PROTECTED BY A CORROSION INHIBITING WRAP. (10 MILL. PVC PIPE WRAP) ALL 90 ELBOWS WILL BE 36" SWEEPS. WRAP SHALL NOT GO THROUGH CLAMPS.

NOTE:

1. SERVICE CONDUIT WILL MEET WESTERN UNDERGROUND COMMITTEE SPEC.3.1. CONDUIT AND CONDUCTORS WILL COMPLY WITH NATIONAL ELECTRICAL CODE, AND BE FURNISHED AND INSTALLED BY CUSTOMER.
2. ALL SHADED AREA WILL BE RIGID METALLIC CONDUIT.
3. MINIMUM DEPTH OF SERVICE TRENCH TO BE 24" (2 FEET).
4. MINIMUM DEPTH OF TRENCH FOR PRIMARY LINE WILL BE 48" (4 FEET). FROM TOP OF CONDUIT.

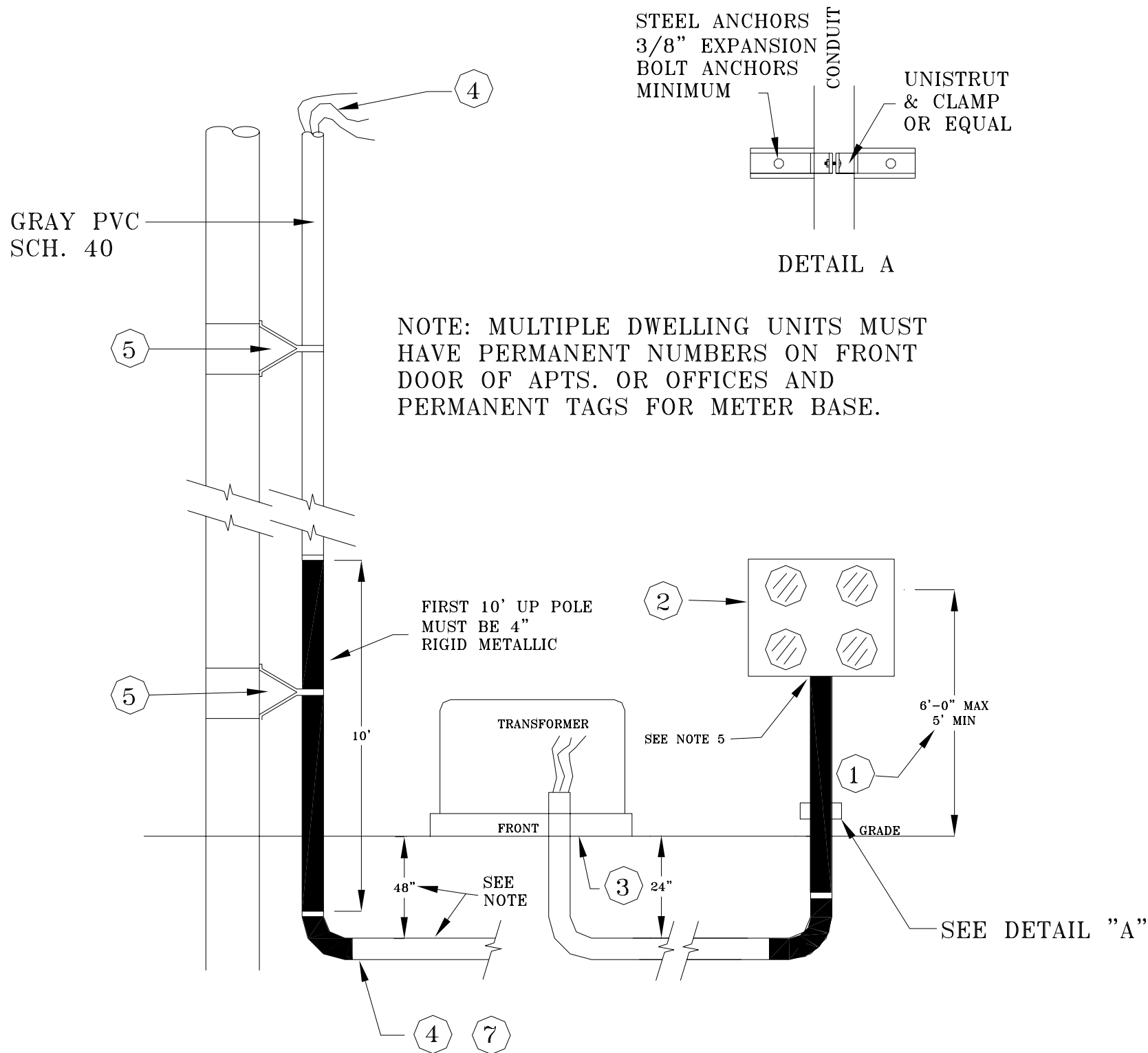
PAYSON CITY CORPORATION ELECTRIC DEPARTMENT

SPECIFICATIONS FOR PRIMARY UNDERGROUND SERVICES
LARGER THAN 200 AMPS. MULTIPLE METERED UNITS.
(SINGLE PHASE AND THREE PHASE)



DRAWN BY: GJR _____
APPROVED BY: RC _____
DATE: REVISED 1/27/2005

DRAWING NO. 02-50-0004



1. HEIGHT OF METER 5'6" AND NOT TO EXCEED 6', AND NOT LOWER THAN 5'.
2. METER SOCKET TO BE FURNISHED AND INSTALLED BY THE CUSTOMER.
3. TRANSFORMER OR VAULT SLEEVE FURNISHED AND INSTALLED BY CUSTOMER. TO GRADE.
4. SERVICE CONDUIT AND CONDUCTORS FURNISHED AND INSTALLED BY THE CUSTOMER SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE, AND UTILITY STANDARDS.
5. CUSTOMER TO FURNISH STAND-OFF BRACKETS, CLAMPS AND LAGS. MINIMUM OF ONE FOR EVERY TEN FOOT LENGTH OF CONDUIT. CITY WILL BUILD RISER PAST THE 1ST 10 FEET.
6. CUSTOMER TO FURNISH AND INSTALL 2500 LBS MULE TAPE FOR PULLING IN PRIMARY CONDUCTORS WITH TEN FEET EXTENDING FROM EACH END.
7. METAL CONDUIT BELOW GRADE WILL BE PROTECTED BY A CORROSION INHIBITING WRAP. (10 MILL. PVC PIPE WRAP) WRAP SHALL NOT GO THROUGH CLAMPS. ALL 90's WILL BE 36" SWEEPS

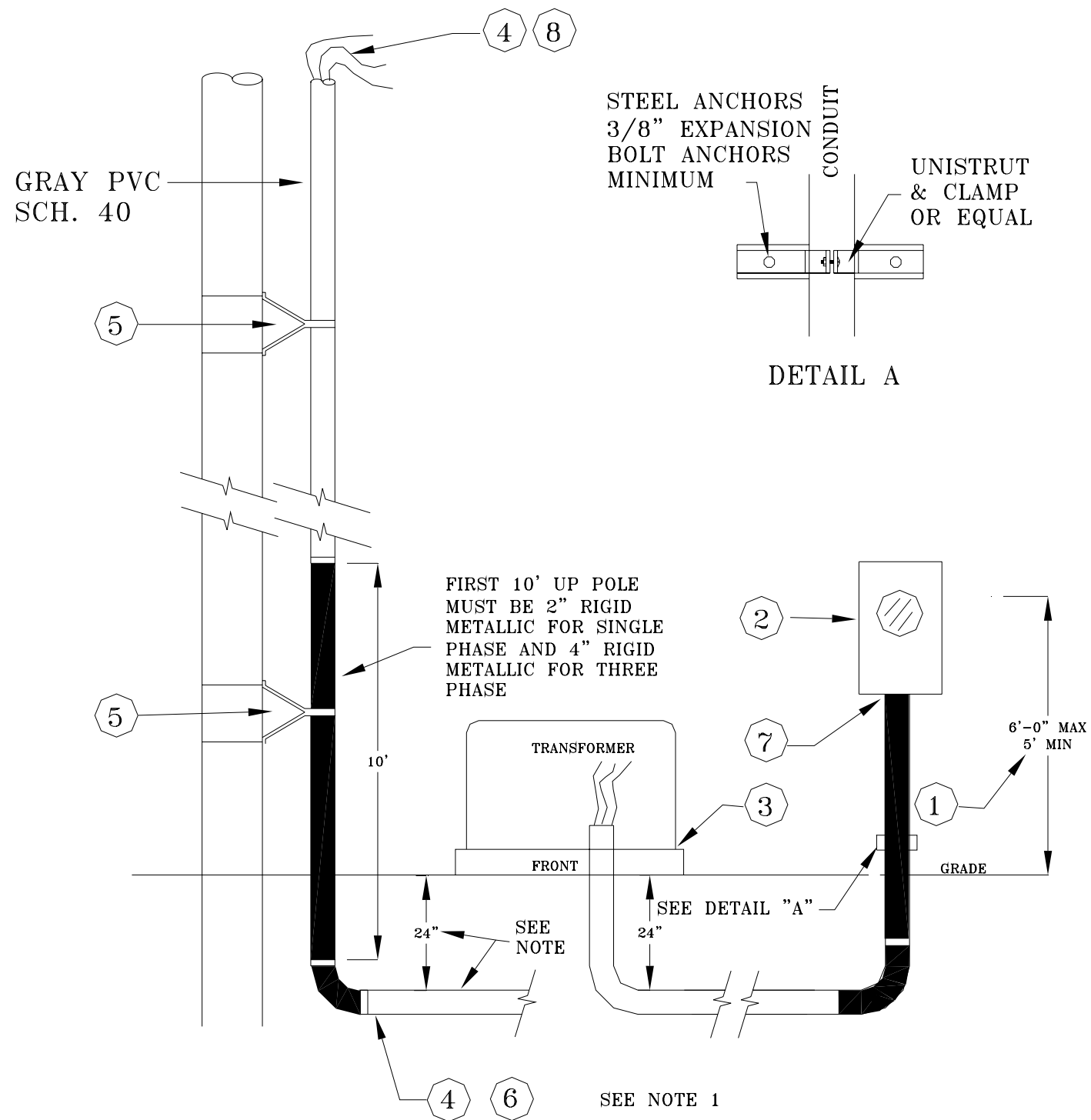
NOTE:

1. SERVICE CONDUIT WILL MEET WESTERN UNDERGROUND COMMITTEE SPEC.3.1. CONDUIT AND CONDUCTORS WILL COMPLY WITH NATIONAL ELECTRICAL CODE, AND BE FURNISHED AND INSTALLED BY CUSTOMER.
2. ALL SHADED AREA WILL BE RIGID METALLIC CONDUIT.
3. MINIMUM DEPTH OF SERVICE TRENCH TO BE 24" (2 FEET).
4. MINIMUM DEPTH OF TRENCH FOR PRIMARY LINE WILL BE 48" (4 FEET).
5. ALL METAL TERMINATIONS SHALL HAVE BUSHINGS OR METER BASE HUB.

PAYSON CITY CORPORATION
ELECTRIC DEPARTMENT

SECONDARY UNDERGROUND SERVICE LARGER THAN 200 AMPS AND UP TO 400 AMPS. SPECIFICATION FOR MULTIPLE METERS. (SINGLE PHASE AND THREE PHASE)

DRAWN BY: GJR _____
APPROVED BY: RC _____
DATE: REVISED 1/27/2005



1. HEIGHT OF METER 5'6" AND NOT TO EXCEED 6', AND NOT LOWER THAN 5'.
2. METER SOCKET TO BE FURNISHED AND INSTALLED BY THE CUSTOMER.
3. TRANSFORMER OR VAULT SLEEVE FURNISHED AND INSTALLED BY CUSTOMER. TO GRADE.
4. SERVICE CONDUIT AND CONDUCTORS FURNISHED AND INSTALLED BY THE CUSTOMER SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE.
5. CUSTOMER TO FURNISH STANDOFF BRACKETS, CLAMPS. LAGS AND UNISTRUT, 1 1/2" DEEP. MINIMUM OF ONE FOR EVERY TEN FOOT LENGTH OF CONDUIT.
6. METAL CONDUIT BELOW GRADE WILL BE PROTECTED BY A CORROSION INHIBITING WRAP. (10 MILL. PVC PIPE WARP WRAP SHALL NOT GO THROUGH CLAMP S. AND USE 36" SWEEP 90'S.
7. ALL METAL TERMINATION SHALL HAVE BUSHINGS OR METER BASE HUB.
8. CUSTOMER TO FURNISH AND INSTALL 2500 LBS MULE TAPE FOR PULLING IN PRIMARY CONDUCTORS WITH TEN FEET EXTENDING FROM EACH END.

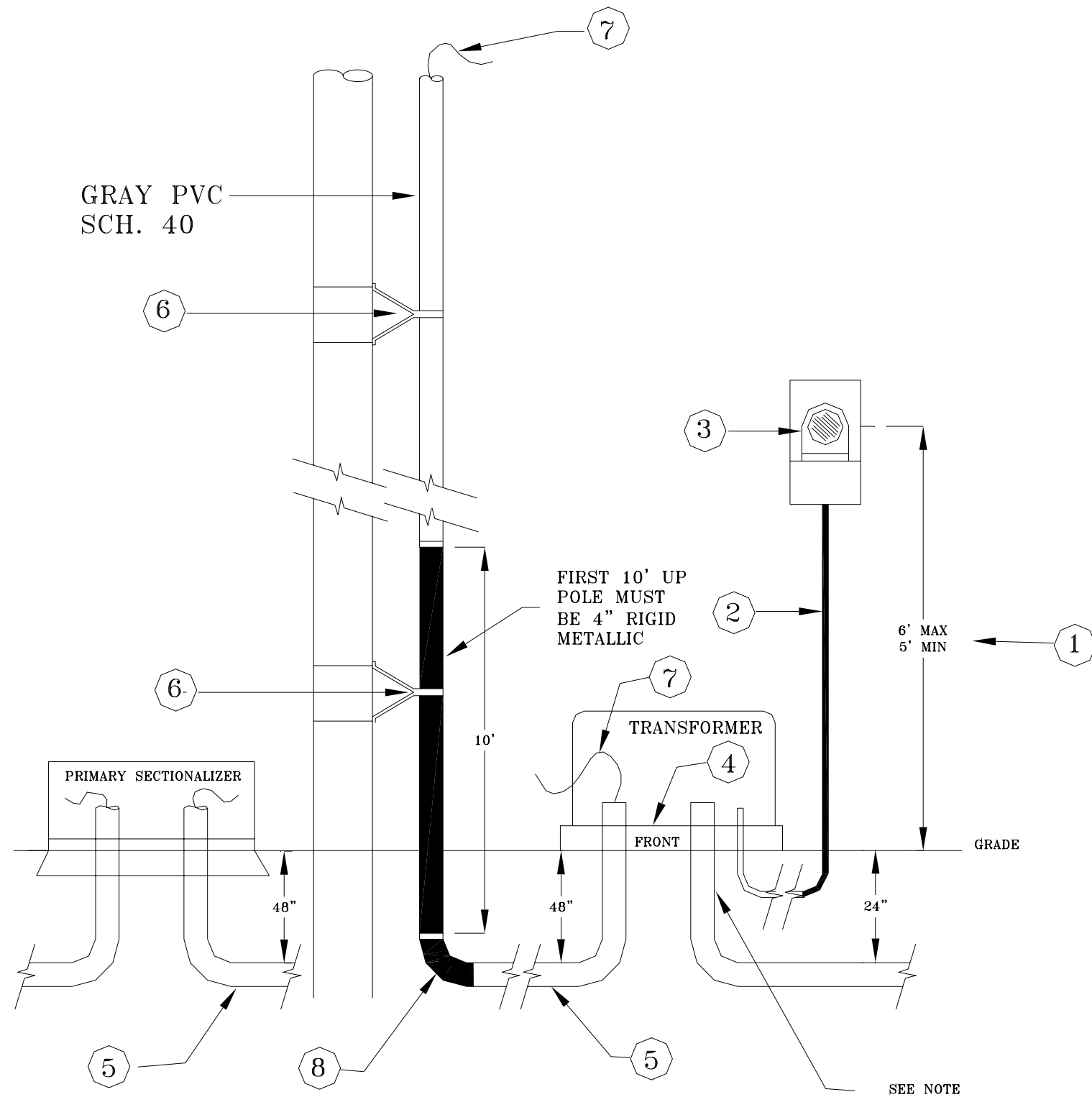
NOTE:

1. SERVICE CONDUIT WILL MEET WESTERN UNDERGROUND COMMITTEE SPEC.3.1. CONDUIT AND CONDUCTORS WILL COMPLY WITH NATIONAL ELECTRICAL CODE, AND BE FURNISHED AND INSTALLED BY CUSTOMER.
2. ALL SHADED AREA WILL BE RIGID METALLIC CONDUIT.
3. MINIMUM DEPTH OF SERVICE TRENCH TO BE 24" (2 FEET).
4. MINIMUM DEPTH OF TRENCH FOR PRIMARY LINE WILL BE 48" (4 FEET) FROM TOP OF CONDUIT.

PAYSON CITY CORPORATION
ELECTRIC DEPARTMENT
SPECIFICATIONS FOR UNDERGROUND SERVICES
200 AMPS MAXIMUM.
(SINGLE PHASE AND THREE PHASE)

DRAWN BY: GJR _____
APPROVED BY: RC _____
DATE: REVISED 1/27/2005

DRAWING NO. 02-50-0006



1. HEIGHT OF METER NOT TO EXCEED 6', AND NOT LOWER THAN 5'.
2. METERING CONDUIT : METALLIC 1" RIGID CONDUIT. TO BE LOCATED NEAR THE FRONT OF PAD SECONDARY OPENING AND HAVE GROUND WIRE AND BUSHING ATTACHED. ALL TO BE FURNISHED AND INSTALLED BY THE CUSTOMER.
3. METER SOCKET: INSTALLED BY PAYSON CITY POWER WHEN ATTACHED TO TRANSFORMER OTHERWISE CUSTOMER MUST ATTACH. CALL 465-5274 FOR MOUNTING INFORMATION.
4. TRANSFORMER OR VAULT SLEEVE FURNISHED AND INSTALLED BY CUSTOMER. TO GRADE.
5. PRIMARY CONDUIT: 2" FOR SINGLE PHASE AND 4" GRAY PVC-SCH 40 FOR THREE PHASE, OR EQUAL, AND MEET NESC. FURNISHED AND INSTALLED BY THE CUSTOMER UNLESS OTHERWISE APPROVED BY UTILITY.
6. CUSTOMER TO FURNISH STANDOFF BRACKETS, CLAMP AND LAGS. MINIMUM OF ONE FOR EVERY 10 FEET OF CONDUIT.
7. CUSTOMER TO FURNISH AND INSTALL 2500 LBS MULE TAPE FOR PULLING IN PRIMARY CONDUCTORS WITH TEN FEET EXTENDING FROM EACH END.
8. METAL CONDUIT BELOW GRADE WILL BE PROTECTED BY A CORROSION INHIBITING WRAP. ALL 90 ELBOWS WILL BE 36" SWEEPS.

NOTE:

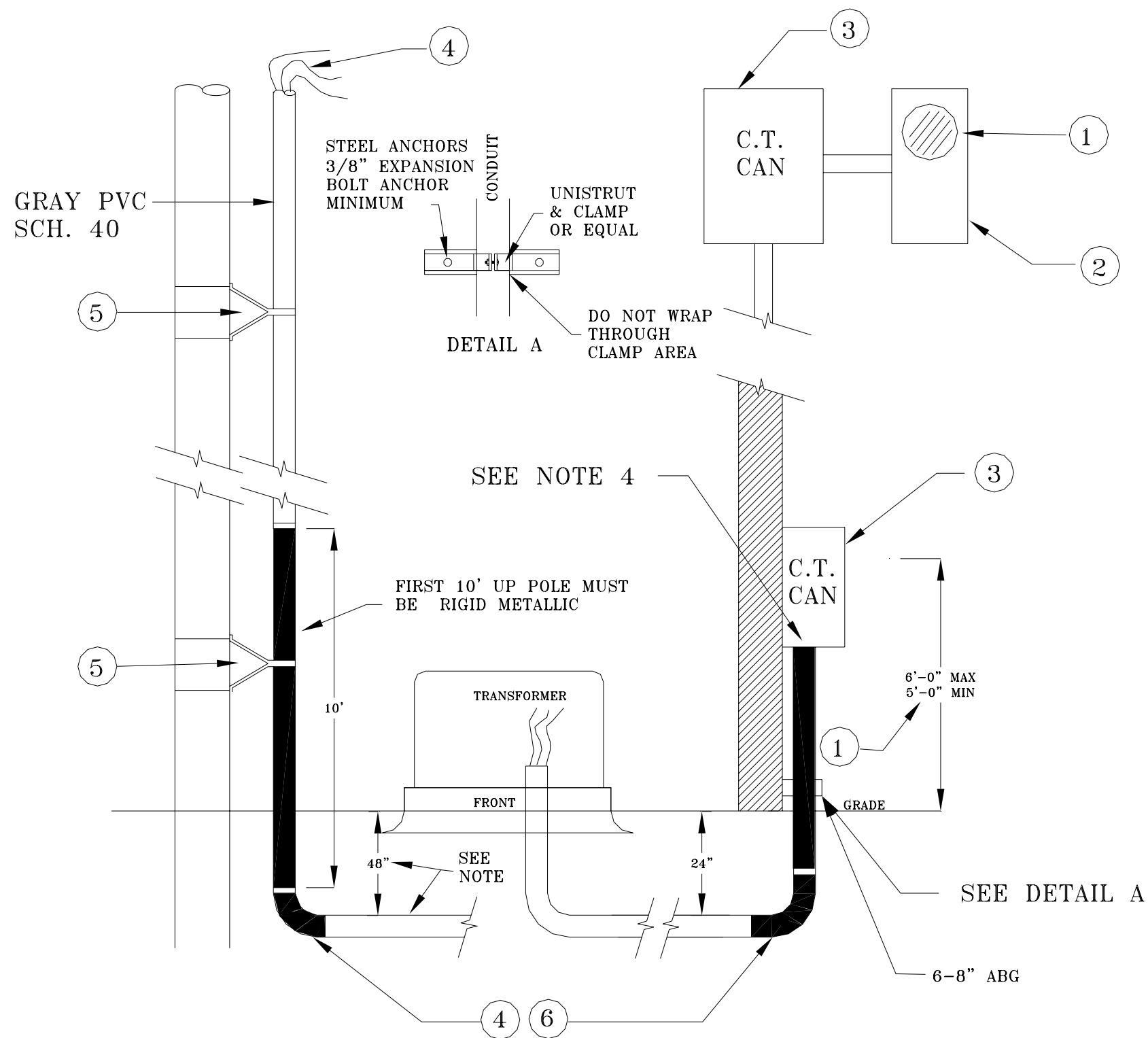
1. ALL SHADED AREA WILL BE RIGID METALLIC CONDUIT.
2. MINIMUM DEPTH OF SERVICE TRENCH TO BE 24" (2 FEET).
3. SERVICE CONDUIT AND CONDUCTORS FURNISHED AND INSTALLED BY THE CUSTOMER WILL COMPLY WITH THE NATIONAL ELECTRICAL CODE AND NESC.
4. ALL METAL TERMINATIONS SHALL HAVE BUSHINGS OR METER BASE HUB.

PAYSON CITY CORPORATION ELECTRIC DEPARTMENT

PRIMARY UNDERGROUND SERVICE LARGER THAN 200 AMPS
DEDICATED TRANSFORMER. SPECIFICATIONS FOR SINGLE-
METERED UNIT. (SINGLE PHASE AND THREE PHASE)

DRAWN BY: GJR _____
APPROVED BY: RC _____
DATE: REVISED 1/27/2005

DRAWING NO. 02-50-0007



1. HEIGHT OF METER NOT TO EXCEED 6', AND NOT LOWER THAN 5'.
2. METER SOCKET TO BE FURNISHED AND INSTALLED BY CUSTOMER. CALL 465-5270 FOR MOUNTING INFORMATION.
3. C.T. CAN FURNISHED AND INSTALLED BY CUSTOMER.
4. SERVICE CONDUIT AND CONDUCTORS FURNISHED AND INSTALLED BY THE CUSTOMER SHALL COMPLY WITH THE NATIONAL ELECTRICAL CODE, AND UTILITY STANDARDS. ALL 90's WILL BE 36" RIDGE CONDUIT SWEEPS.
5. CUSTOMER TO FURNISH STAND-OFF BRACKETS, CLAMPS AND LAGS, MINIMUM OF ONE FOR EVERY TEN FOOT LENGTH OF CONDUIT.
6. METAL CONDUIT BELOW GRADE WILL BE PROTECTED BY A CORROSION INHIBITING WRAP. (10 MILL. PVC WRAP) WRAP SHALL NOT GO THROUGH CLAMPS

NOTE:

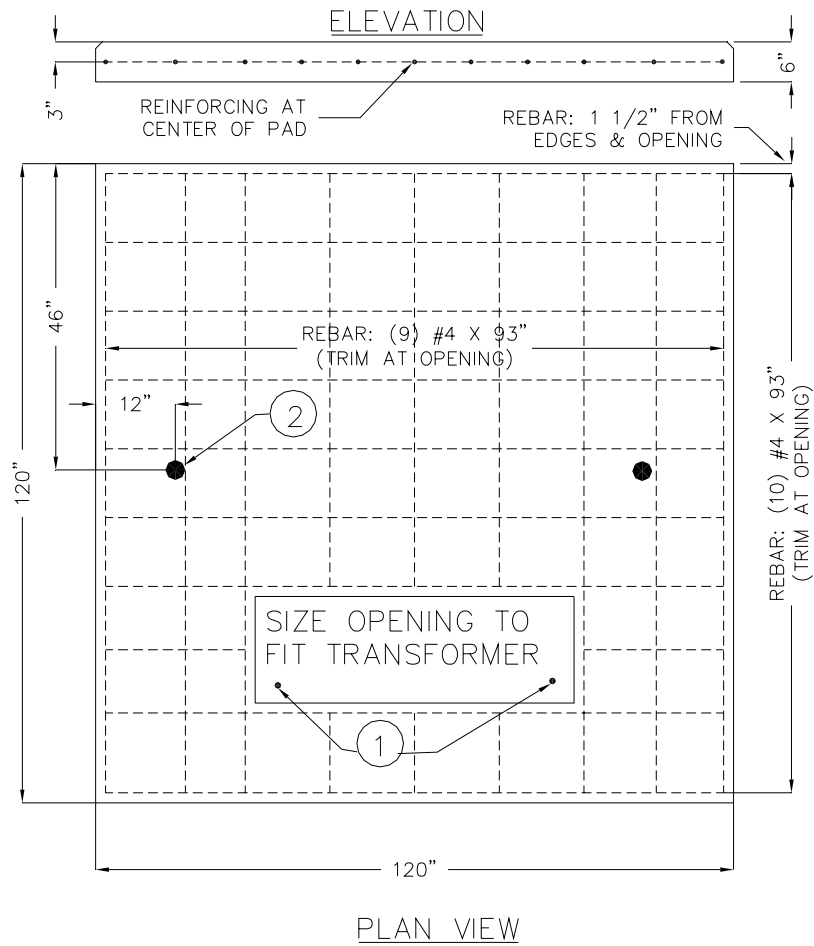
1. SERVICE CONDUIT WILL MEET WESTERN UNDERGROUND COMMITTEE SPEC.3.1. CONDUIT AND CONDUCTORS WILL COMPLY WITH NATIONAL ELECTRICAL CODE, AND BE FURNISHED AND INSTALLED BY CUSTOMER.
2. ALL SHADED AREA WILL BE RIGID METALLIC CONDUIT.
3. MINIMUM DEPTH OF SERVICE TRENCH TO BE 24" (2 FEET).
4. METER HUB OR ALL METAL TERMINATIONS SHALL HAVE BUSHINGS.

PAYSON CITY CORPORATION
ELECTRIC DEPARTMENT

SECONDARY UNDERGROUND SERVICE LARGER
THAN 200 AMPS SPECIFICATION FOR SINGLE METER.
(SINGLE PHASE)

DRAWING NO. 02-50-0008

DRAWN BY: GJR _____
APPROVED BY: RC _____
DATE: REVISED 1/27/2005



- ① 5/8" X 8'-0" COPPER CLAD GROUND ROD
- ② PAD ANCHOR (2 PLACES FOR PRECAST PAD)

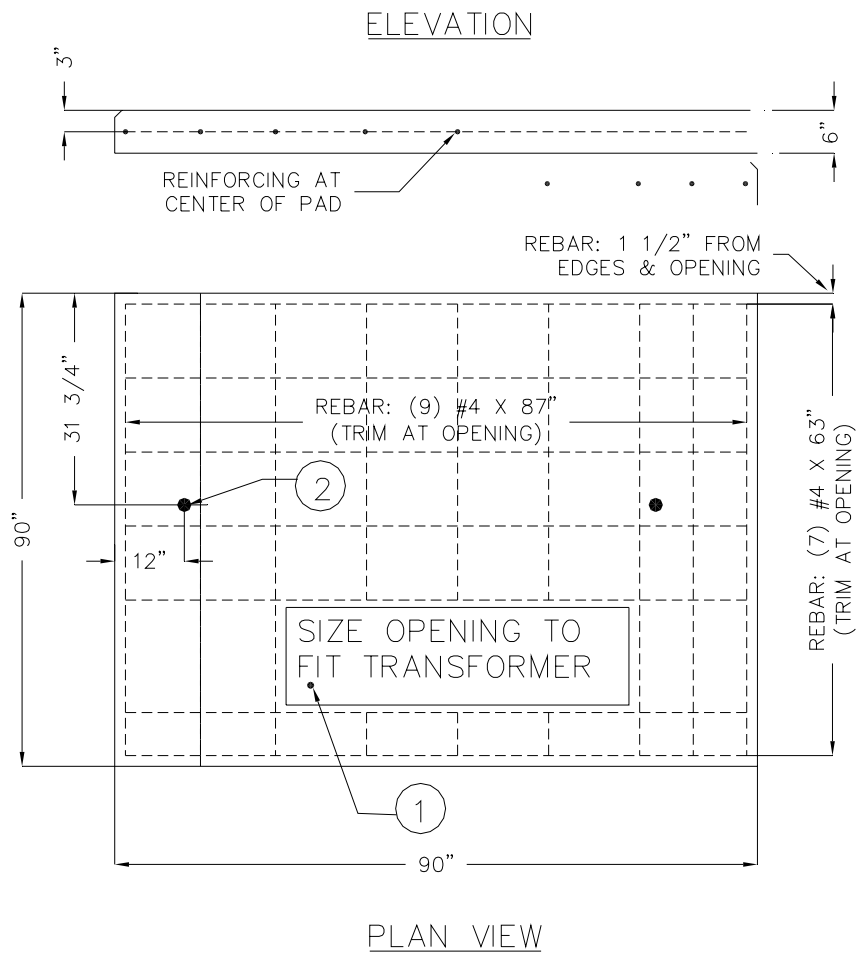
INSTALLATION INSTRUCTIONS & PAD SPECIFICATIONS ON PAGE 23

PRECAST OR CAST-IN-PLACE PAD
FOR THREE PHASE TRANSFORMER
750-1000 kVA

PAYSON CITY CORPORATION
ELECTRIC DEPARTMENT

DRAWN BY: GJR _____
APPROVED BY: RC _____
DATE: REVISED 5/7/01

DRAWING NO. 02500009



- ① 5/8" X 8'-0" COPPER CLAD GROUND ROD
- ② PAD ANCHOR (2 PLACES FOR PRECAST PAD)

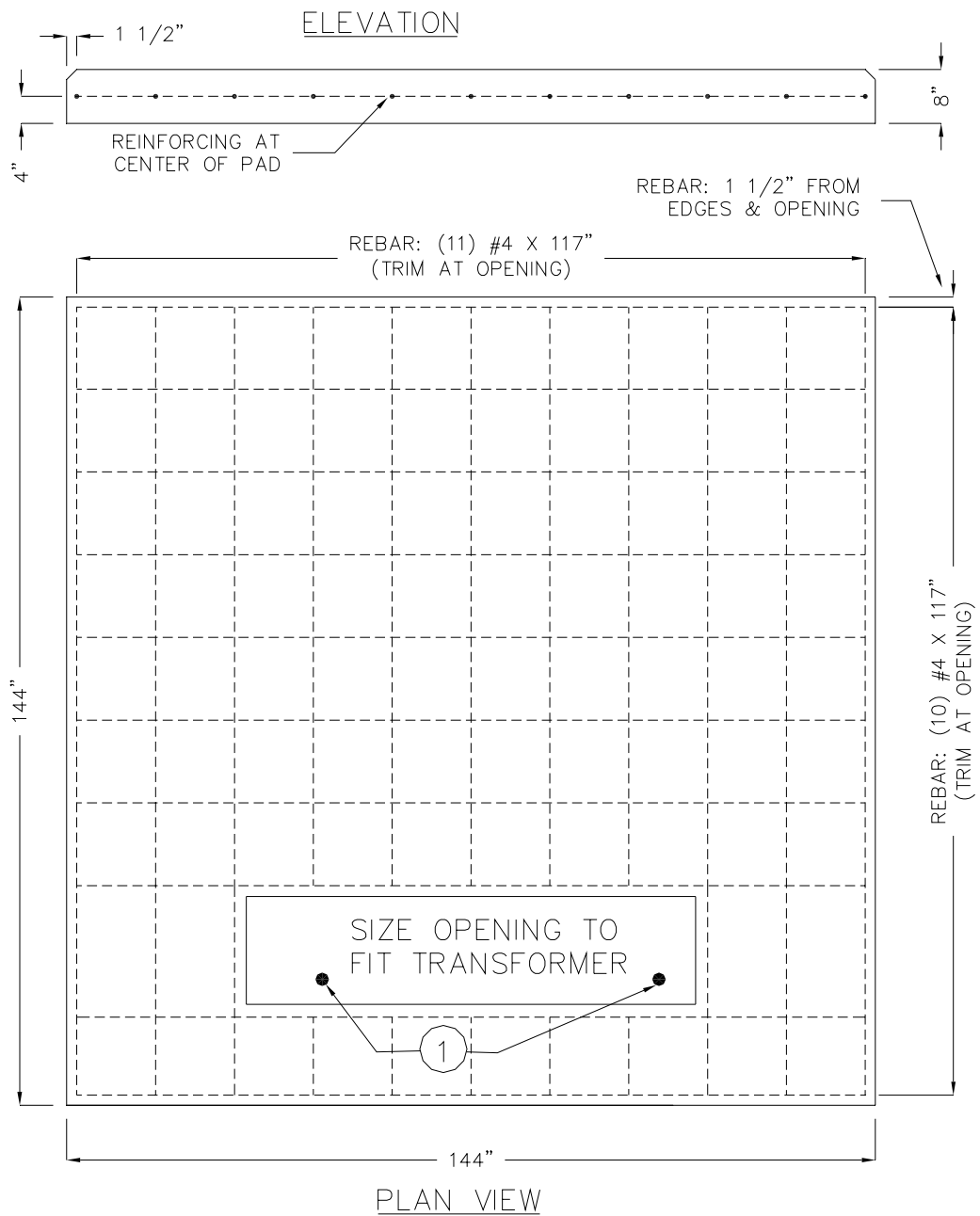
INSTALLATION INSTRUCTIONS & PAD SPECIFICATIONS ON PAGE 21

PRECAST OR CAST-IN-PLACE PAD
FOR THREE PHASE TRANSFORMER
0-500 kVA

PAYSON CITY CORPORATION
ELECTRIC DEPARTMENT

DRAWN BY: GJR _____
APPROVED BY: RC _____
DATE: REVISED 5/7/01

DRAWING NO. 02500010



① 5/8" X 8'-0" COPPER CLAD GROUND ROD

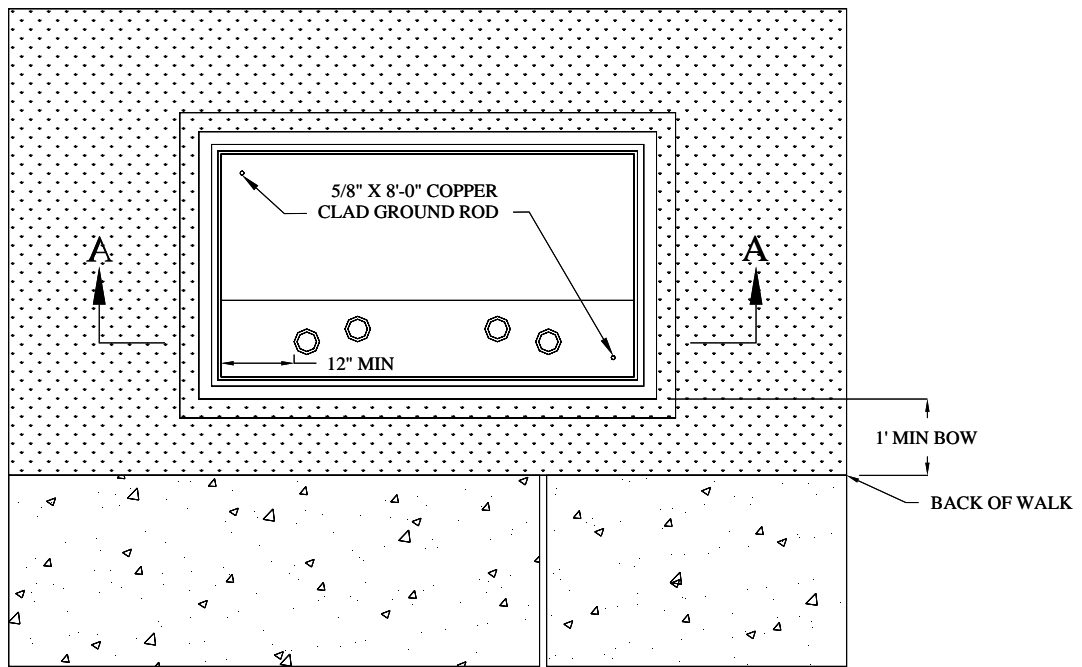
INSTALLATION INSTRUCTIONS & PAD SPECIFICATIONS ON PAGE 25

CAST-IN-PLACE PAD FOR
THREE PHASE TRANSFORMER
1500-2500 kVA

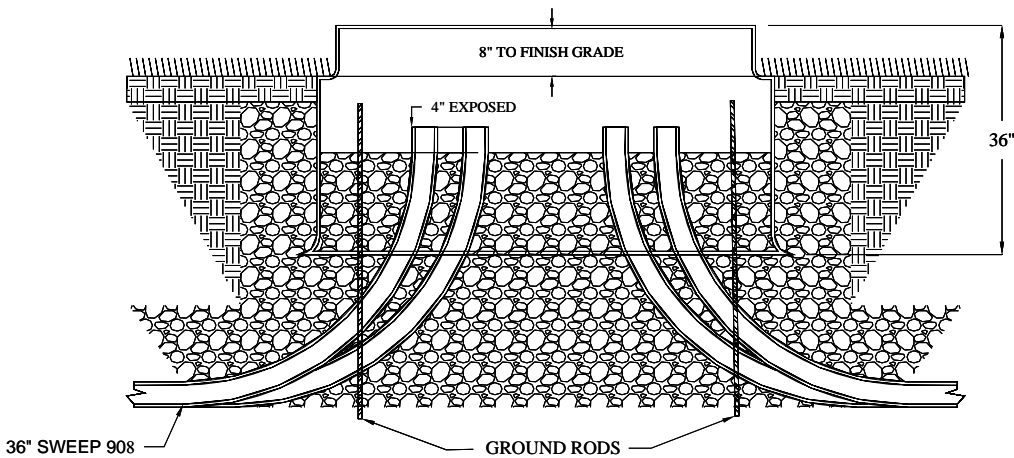
PAYSON CITY CORPORATION
ELECTRIC DEPARTMENT

DRAWN BY: GJR _____
APPROVED BY: RC _____
DATE: REVISED 5/07/01

DRAWING NO. 02500011



PLAN VIEW



SECTION A-A

- ① 10' OF $\frac{4}{0}$ BARE COPPER FOR GROUNDING, CITY WILL INSTALL
- ② LONG SIDE OF BOX TO PARALLEL SIDEWALK

PAD SWITCH SLEEVE

DRAWN BY: CJE _____
 APPROVED BY: RC _____
 DATE: REVISED 2/07/05

PAYSON CITY CORPORATION
 ELECTRIC DEPARTMENT
 DRAWING NO. 02500012