

# ADDSTM

## ELECTRICAL UNDERGROUND RESIDENTIAL MODULE

# THE FASTEST, MOST ACCURATE ELECTRIC DISTRIBUTION DESIGN SOLUTION FOR THE UTILITY INDUSTRY

Roussey Solutions introduces a breakthrough in URD technology. ADDS is a software module that uses advanced networking methodology to provide the utility industry with cost-effective design solutions. As a complete design package, ADDS delivers greater flexibility and accuracy.

### Centralized Data Storage

With ADDS, job maintenance is a cinch. Data modification is accomplished through a user-friendly GUI interface. Since all data is stored centrally, modifications to the database are automatically reflected at all design stations. This ensures that all designers work from a consistent data set. This data need only be modified at initial installation or when corporate standards or equipment change.

### User Defined Load Determination

Load determination is built up from many user defined parameters, including: residence type, residence size, electric design type, such as A/C, All Electric or Gas Heat, equipment size (A/C tonnage), and diversity tables. The various load definition tables would reflect data consistent with the user's current design methodology.

### Equipment Tables determine Utilization

Equipment is modeled to a great detail to ensure engineering accuracy of the designs produced by ADDS. Transformer, cable, switched and unswitched modules, fuses, and terminal poles are just some of the equipment that is accounted for electrically in the ADDS software. Data such as cable resistance and impedance, transformer maximum KVA loads, fuse voltage and amperage limits, and module switch settings are some of the data that ADDS employs in determining a proper electric design.

### Micro-Design Capabilities

The user has a multitude of choices in determining how a design will be created. Trenching, lot entry philosophy, and other options are selected prior to specifying a transformer site. Once a transformer has been placed, the site can be micro-designed by selectively adding lots to – or removing lots from – a transformer's load. This is done with different trenching and/or lot entry options to create hybrid designs or to address specific development layout considerations. The designer does not have to accept the design created by ADDS. A design can be actively altered to his/her liking, without fear of exceeding any design criteria.

### Detailed Output

Summary data for each transformer site can be displayed in addition to more detailed data for each lot. This allows engineering verification and can serve as a permanent record of the design.

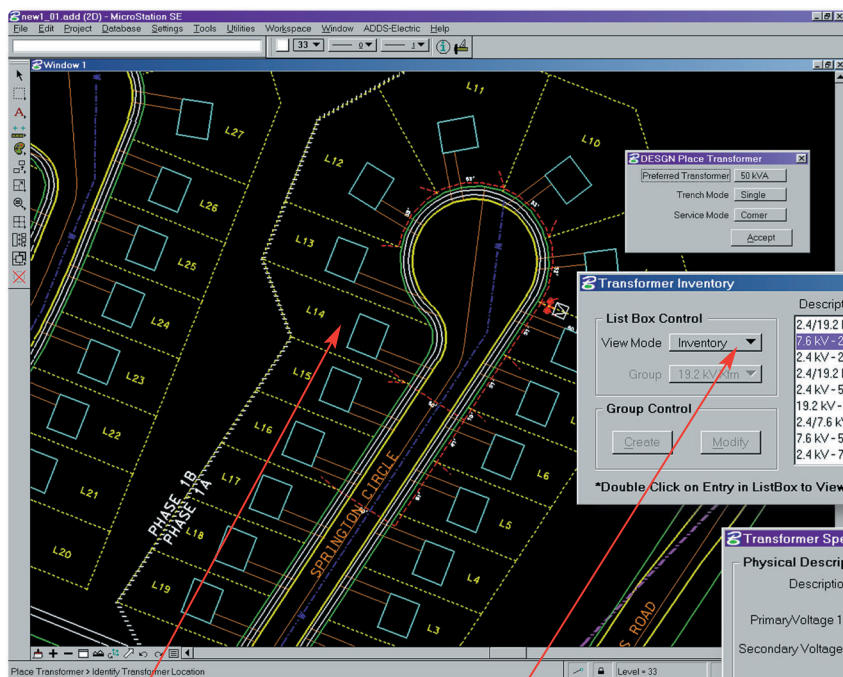


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# ADDS™ A POWERFUL NEW SOFTWARE SOLUTION FOR THE UTILITY INDUSTRY



- ▼ CUT DESIGN AND CONSTRUCTION COSTS
- ▼ STREAMLINE THE URD EVALUATION PROCESS
- ▼ INCREASE PRODUCTIVITY AND ACCURACY

Inventory can be grouped in many ways

GIS intelligent landbase

Maintain a complete inventory of all equipment

**Transformer Specifications**

Physical Descriptions

Description: 7.6 kV - 25 kVA Padmount

Primary Voltage 1: 7.6 kV Primary Voltage 2: N/A

Secondary Voltage: 120/240 Phase Description:

\*Second Primary Voltage Indicates Dual Ratio

Data

NamePlate kVA:	25.0	% Resistance (IR):	0.0
Summer Rating (kVA):	33.0	% Reactance (IX):	0.0
Winter Rating (kVA):	44.0	Half Winding Factor (IR):	1.5
Installed Cost (\$):	3100.000	Half Winding Factor (IX):	1.2

Close

Accurate model of transformer performance

**Default Design Specifications**

Voltage Drop Limits

Allowable Design Load % Voltage Drop: 0.0700

Allowable LRC % Voltage Drop: 0.0430

Secondary Underground Electric Design

Transformer Table: 7.6 kV Xmins

Secondary Cable Table: Secondary SF

Service Cable Table: Service SF

Preferred Transformer: 50 kVA

Construction Setback for Transformer (ft): 0.00

Connection Stick in Transformer (ft): 0.00

Load Definitions

Number of Meters per Lot: 1

Default House Size (Sq Ft): 1800.00

Residence Type: Single Fam

Design Type: AC-Gas Range & HW

A/C or Heat Pump Size (tons): 2.5

Primary Underground Electric Design

Distribution Voltage (kV): 7.6 kV

Primary Cable Table: Primary 7.6 kV

OK Cancel

Complete control of job design criteria

Ability to define loads in various ways

Easy selection of equipment groups

Description of specific transformer in use

Each meter is summarized in the site review

**Transformer Summary Site Review**

TRANSFORMER INFORMATION

Designator: SAKGHDF

Description: 7.6 kV - 50 kVA Padmount

Rated kVA: 50.0

Max Connected Load: 65.0

COST INFORMATION

Cost of Splices (\$): 0.00

Cost of Installed Transformer (\$): 3000.00

Cost of Secondary Buss (\$): 817.12

Total Transformer Site Cost (\$): 3817.12

LOAD INFORMATION

w/o Diversity: 64.80 w/ Diversity: 64.800

Diversity Factor: 1.000

Power Factor: 0.98

# of Lots Loaded: 11

% Voltage Drop Design Load: 2.902

Line-to-Line: 6639.4 Line-to-Neutral: 3320.0

Max Fault Current (Amps): 6639.4

Print Mode: Summary

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SECONDARY BUSS SUMMARY

Description	Total Length (ft)	Cable	Trenching	Conduit	Approximate Cost (\$)
2-1x4/0 AL & 1-1x1/0 AL	526.3	817.12	0.00	0.00	

COST TOTALS

	Cable	Trenching	Conduit
	817.12	0.00	0.00

SERVICE CABLE SUMMARY

Lot ID	Cable Description	% Voltage Drop	Flicker	Length (ft)	Available	Required	Approximate Cost (\$)
L1	2-1x4/0 AL & 1-1x1/0	2.00	0.63	692.7	80.7	125.25	0.00
L3	2-1x4/0 AL & 1-1x1/0	2.00	0.63	692.7	93.4	146.54	0.00
L10	2-1x4/0 AL & 1-1x1/0	2.38	0.91	639.7	86.8	134.70	0.00
L7	2-1x4/0 AL & 1-1x1/0	2.55	0.90	641.7	80.8	125.42	0.00
L11	2-1x4/0 AL & 1-1x1/0	2.66	1.19	596.7	86.4	134.10	0.00
L6	2-1x4/0 AL & 1-1x1/0	3.00	1.17	590.7	91.6	135.52	0.00
L12	2-1x4/0 AL & 1-1x1/0	2.85	1.47	533.7	89.0	138.11	0.00
L14	2-1x4/0 AL & 1-1x1/0	3.25	1.49	530.5	94.9	147.39	0.00

Lot Detail

Produce printed reports for engineering validation

Summary of equipment/labor cost for the design selected



ROUSSEY COMPANIES

Deregulation of the utility industry has created a highly competitive environment – one that demands innovative new solutions. ADDS meets the challenge – with groundbreaking residential design software applications that give you a definite competitive edge.

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