ComEd.
An Exelon Company

Station 13 Crawford New Feeder & Reconfiguration Midway System Improvement Plan

Phase 3 Final

ITN 45170

EPS Project ID: 10SPD030

Project Importance: Required

Project Urgency: Immediate

PD # 3P111001

OFFICIAL FILE
I.C.C. DOCKET NO. 10-0467
Admitted ComEd Exhibit No. 6
Witness
Date 1/13/11 Reporter

Project Authorization Overview

Jude Piotrowski, Project Manager

Sepideh Fard, Capacity Planner

System Performance

AIC 11/09/2010

PRC 11/16/2010

Project or Exec. Sponsor: M. Blaise

ComEd Cross Exhibit 6

Decision Sought

- Requesting Phase 3 approval of $2,353k capital direct cost ($225k in 2010; $2,128k in 2011) to proceed with the Installation Phase of Station 13 Crawford New Feeder & Reconfiguration as part of the Midway System Improvement Plan.
  - This project has a projected total direct cost of $2,635k and indirect cost of $739k for a total project cost of $3,374k.
- The Project has a projected 06/05/11 service date.
- The requested funding for this phase of the project will be obtained as follows:
  - 2010: $225k from ITN 16542 Projects between $100k & $5M.
  - 2011: $2,2128k from Project Checkbook.
- Contractors will perform the design and civil work. ComEd will perform the electric installation.

Background / Need for Project

- This project is to:

1- Eliminate overhead exposure on Z6337. This is one of the feeders supplying the Midway Airport network centers, plus it serves various radial Midway load points.

2- Provide an additional supply to the Midway Airport load at the north end of the Airport. (FAA, Southwest Airlines hangars, Midway Airport secondary gate and Midway Airport parking).

3- Increase operational flexibility in Midway Airport area.

These objectives will be accomplished by installing a new feeder Y13082 at Crawford STA13 to relieve Z6346.

Z6346 will be reconfigured to remove overhead exposure from Z6337.

Z6346 will also be extended west of Cicero Ave. on 55th Street to provide a third supply to the existing Midway Airport load (non network center loads) on 55th Street that is currently supplied byZ6337 and Z6339.

Multiple switchgear (5 units) will be installed on feeders Z6337, Z6339 and Z6346 to provide for additional sectionalizing capability.

Business Case Summary

- Eliminate overhead exposure on Midway Airport network center feeder Z6337.
- Provide additional supply to the Midway Airport load at the north end of the Airport.
- Increase operational flexibility in Midway Airport area.

PVA -Project Value Analysis

Meeting held: 09/14/2010 *Accountable person: R. Patriarca*

Items reviewed/outcome/savings identified: Identified the need for an additional boost buck transformer.

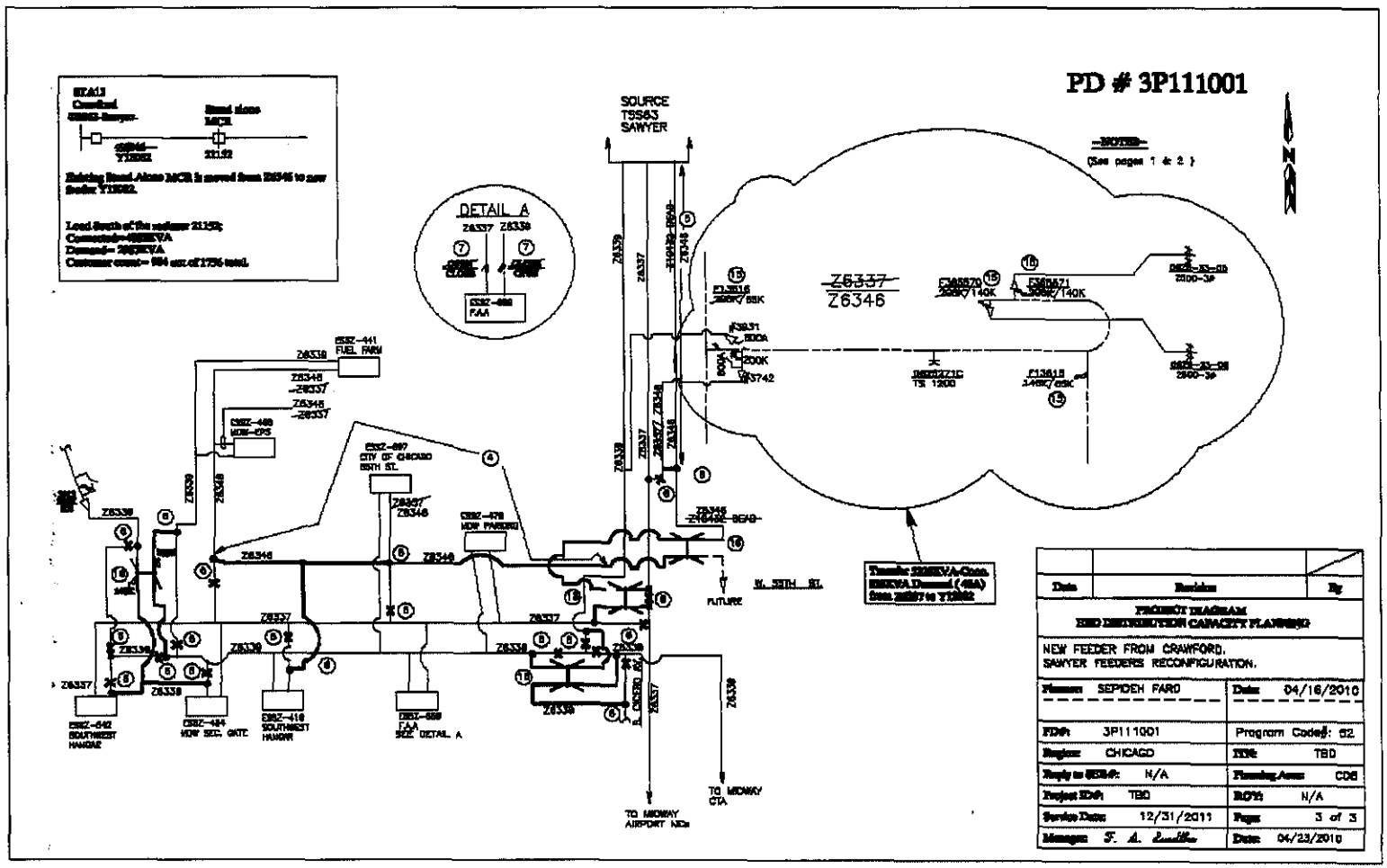
Project Risk Score: **calculated risk score # = 33** (> 40 = significant)

comments: _____

Proposed Solution

- Install new feeder Y13082 at Crawford STA13. This new feeder will relieve Z6346.
- Extend Z6346 south to remove overhead exposure on Z6337, which feeds Midway Airport network centers.
- Extend Z6346 further south to 55th Street and west of Cicero Ave. This will provide an additional source in the area to serve Midway Airport load.
- Install 5 switchgears to increase operational flexibility of TSS 63 Sawyer feeders serving the Midway Airport Network Centers (Z6337) as well as some radial load (Z6337 & Z6346).

Proposed Solution



2010 Scope of Work ($1000's)

DESIGN: Design project, site switchgear locations, and obtain permits.

CIVIL: Install ~800' conduit at 4 locations; proof-rod existing conduit; and install 7 switchgear bases.

ComEd labor	$ 25	PM, Eng
Contractor costs	$472	Civil, PMO, EOC
Materials	$ 10	Switchgear Bases
Contingency	$ 0	
	=======	
2010 total	$507	

2011 Scope of Work ($1000's)

CIVIL: Install ~24' conduit to upfeed pole; restore roads.

ELECTRICAL: Install copper cable (~11,000'), Aerial cable (~2000'), 3 boost transformer banks, 5 4-bay switchgears, and relay upgrade. Replace ~2500' of existing dead cable. Switching.

ComEd labor	$ 936	UG, OH, PM, Eng, SSC, TG
Contractor costs	$ 156	Civil, EOC, PMO
Materials	$ 952	Cable, Aerial Cable, Switchgears
Contingency	$ 84	
	=======	
2011 total	$2,128	

Alternatives Considered

Alternatives	Total Project Direct Cost $M
Do Nothing: Overhead exposure remains on Z6337, which feeds Midway Airport network centers. Midway Airport loads on the north side of the Airport remain with reduced feeder diversity and subject to increased last contingency situations.	–
Recommended: 3P111001	$2.6
Alternative #1: Extend Z6346 south to remove Z6337 overhead exposure. Install a new 40MVA transformer and a new feeder at Clearing TDC550 to provide additional source to the Midway Airport load on the north side of the Airport.	$7.4

Risks and Confidence Factor

Risks to Project

(high, medium, low)

	Probability	Impact	Comments	Resolved?
•Resource Availability				
Permits	**M**	**H**	**Emergent Requests**	**Y**
Real Estate	**M**	**H**	**Easement-Switchgr**	**Y**
•Other Risks				
Outages	**M**	**M**	**Based on Design**	**N**
Customer	**M**	**M**	**Work with Airport**	**Y**

Confidence Factor:

Signed letter of intent/direction from customer: Aerial photos with switchgear locations near Airport. Date: 07/14/2010.

Comments: Signed aerial photos and pre-construction surveys completed.

DETERMINATION of PROJECT'S PROPER FUNCTIONALIZATION (T vs. D)

1) Review the 7 INDICATORS OF LOCAL DISTRIBUTION (FERC Order #888)

A facility usually has a distribution function if it meets the following seven indicators of local distribution established by FERC.

1. Local distribution facilities are normally in close proximity to retail customers
2. Local distribution facilities are primarily radial in character.
3. Power flows into local distribution systems; it rarely, if ever, flows out.
4. When power enters a local distribution system, it is not reconsigned or transported on to some other market.
5. Power entering a local distribution system is consumed in a comparatively restricted geographical area.
6. Meters are based at the transmission/local distribution interface to measure flows into the local distribution system.
7. Local distribution systems will be of reduced voltage.

Application:
If any of the indicators are present, the facility is classified as local distribution. Typically, more than one indicator will be present for a distribution facility.

Combined Function Substations

1. Some substation locations contain both Transmission and Local Distribution function facilities. Equipment utilized for a single function such as bus, equipment foundations, primary and secondary voltage connections, lightning arresters, switching equipment and transformers can be readily assigned to that function.

2. Equipment and other facilities that are utilized in both the Transmission and Distribution functions and cannot be identified as having a specific function will be assigned to the function of the predominant use of the substation as determined from the cost of the facilities with identified function. This category may include items such as land, control equipment, batteries, fences and building structures.

DETERMINATION of PROJECT'S PROPER FUNCTIONALIZATION (T vs. D)

2) Review the Projects & the Project Diagrams, then answer the following questions Y / N to determine if project is T or D, Both or General: **[NOTE: mark an "X" for each factor below]**

Factor Based Questions	Yes	No	Determination
a) Is the projects 69kV or below?	x		if yes, then Distribution
Is the project 138kV or 345kV...			
b) – feeding 1 customer?		x	if yes, then Distribution
c) – a radial line or feed?		x	if yes, then Distribution
d) – part of Bulk Power Path(Transm) Grid?		x	if yes, then Transmission
e) Is the project 765kV?		x	if yes, then Transmission
f) Is the project / facility is combined(T&D), is it >51% T?		x	if yes, then Transmission
g) Facilities in common / General Plant (e.g. IT, Real Estate)		x	if yes, then General

3) Proper functionalization determination:

Which line items above were marked yes? a

Therefore the requested project is classified to be (T or D or Both or General) ? **D**

EPS Project ID Accounting Considerations

	EPS Project ID Structure: Does ITN work include?	Yes	No
A	Combination of Distribution, High Voltage Distribution, Transmission, and General Plant Assets?		x
B	Both Capital and Expense work (see examples below)?		
	1) Environmental Remediation work?		x
	2) Transfer of pre-existing assets?		x
	3) Temporary Services?		x
	4) Abandoned design/engineering costs?		x
	5) Training?		x
C	Multiple Asset Installation Phases with different in service dates?		x
D	Multiple Asset Work Locations with different in service dates?		x
E	Purchased Land, Easements, Right-of-Way?		x
F	Assets purchased or constructed for Future Use?		x
G	Taxable CIAC Gross-Up?		x
H	Disposition of previously Installed Assets/Equipment (if applicable):		
	1) Abandoned in Place (need to record retirements)?		x
	2) Salvaged/Scrap?		x
	3) Transferred to another Jobsite or returned to Inventory?		x

If answer to any of the above criteria is Yes, additional accounting guidance and/or separate EPS Project ID's will be required to record costs.

How many EPS Project ID's are required to support the work within the ITN? 1

Project Cost Summary

($1000's)

	2010	2011	Total
Phase 1	7	0	7
Phase 2	106	0	106
Phase 3 Civil	169	0	169
Phase 3	225	2128	2353
Total Direct Cost	507	2128	2635
Budgeted Direct Costs	282	2128	2410
Indirect Costs	117	622	739
Total Project Cost	624	2750	3374
CIAC / Revenue			
Budgeted CIAC			
Total Cost Less CIAC	624	2750	3374
Required Offset Costs	225	0	225

APPROVALS :

Phase 3 Final Approval being requested: $2,353k

2010 Request: $ 225k

Project Summary - Cost Type *($1000's)*

Current Authorization Request

Cost Type *(Direct)*	2010	2011	Total
Internal Labor	20	936	956
Contracting	195	156	351
Materials	10	952	962
Long Lead Materials (> 1 year)			
Other			
Contingency		84	84
Total Project Direct Cost	225	2,128	2,353

Total Project Cost Detail (Forecast)

Cost Type *(Direct)*	2010	2011	Total
Internal Labor	25	936	961
Contracting	472	156	628
Materials	10	952	962
Long Lead Materials (> 1 year)	0	0	0
Other	0	0	0
Contingency	0	84	84
Total Project Direct Cost	507	2,128	2,635

Project Direct Cost Estimate History *($1000's)*

Date:	***5/17/2010***	***7/15/2010***	***11/16/2010***	
Estimate	@ Phase 1	@ Phase 2 & 3 Civil	@ Phase 3	
Phase 1	$8	$7	$7	
Phase 2	$131	$106	$177	
Phase 3	$2,102	$2,355	$2,451	
Total Direct Costs	**$2,241**	**$2,468**	**$2,635**	**$0**
Variance $		$227	$167	
*** Variance %**		10%	7%	
Target %		+/- 50%	+/- 25%	

****VARIANCE EXPLANATIONS:*** *[$__ labor + $__ Mat'l + other]*

Phase 1 to 2:	$95 labor and $132 material for additional underground work: cable removal, additional cable pulling and more manholes and joints.
Phase 2 to 3:	$52k - ComEd Labor; $48k - Contractor Costs; $27k - Relay Upgrade; $25k - Labor Burden Increase; $15k - Collapsed Duct.
Phase 3 to completion:	

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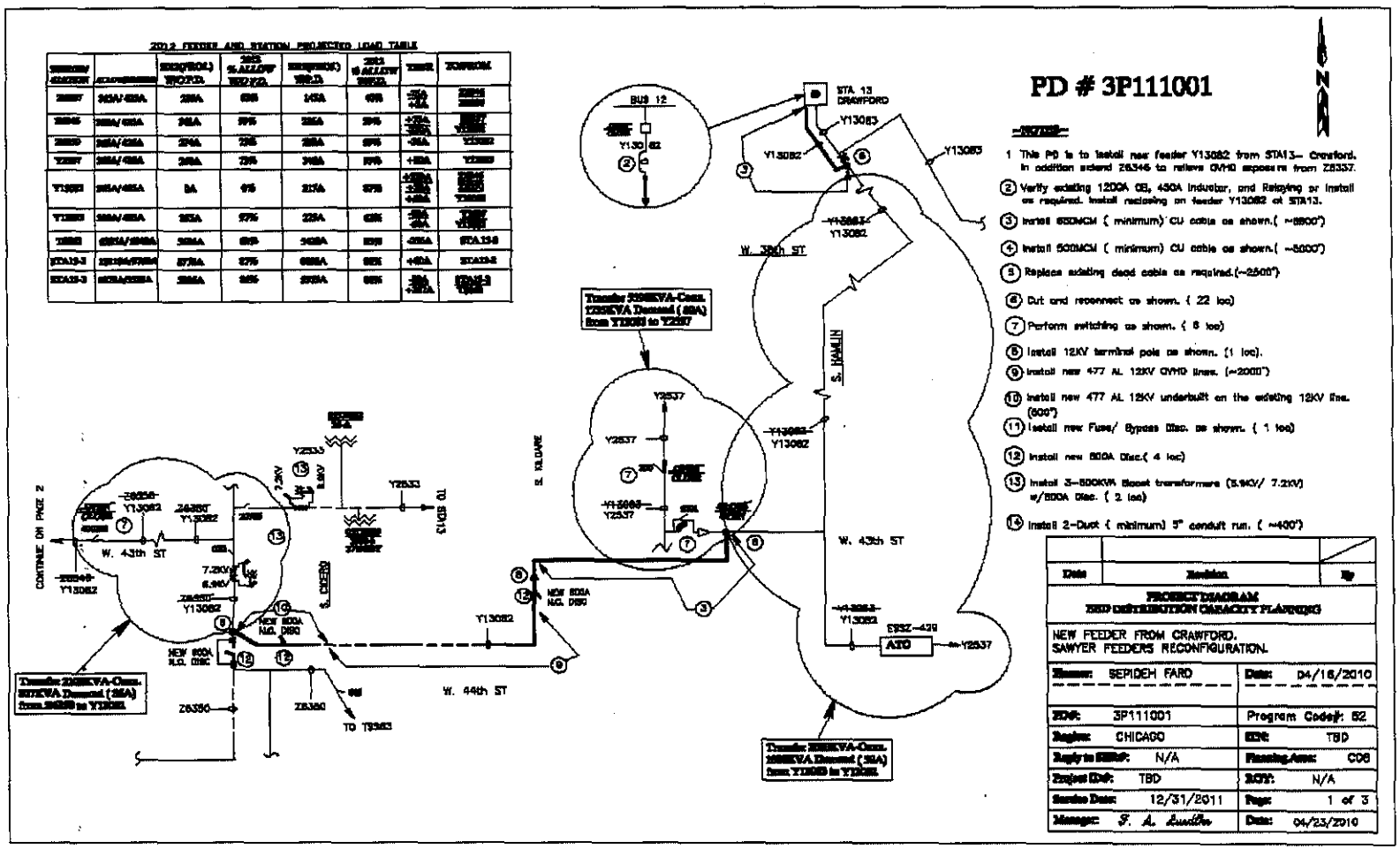

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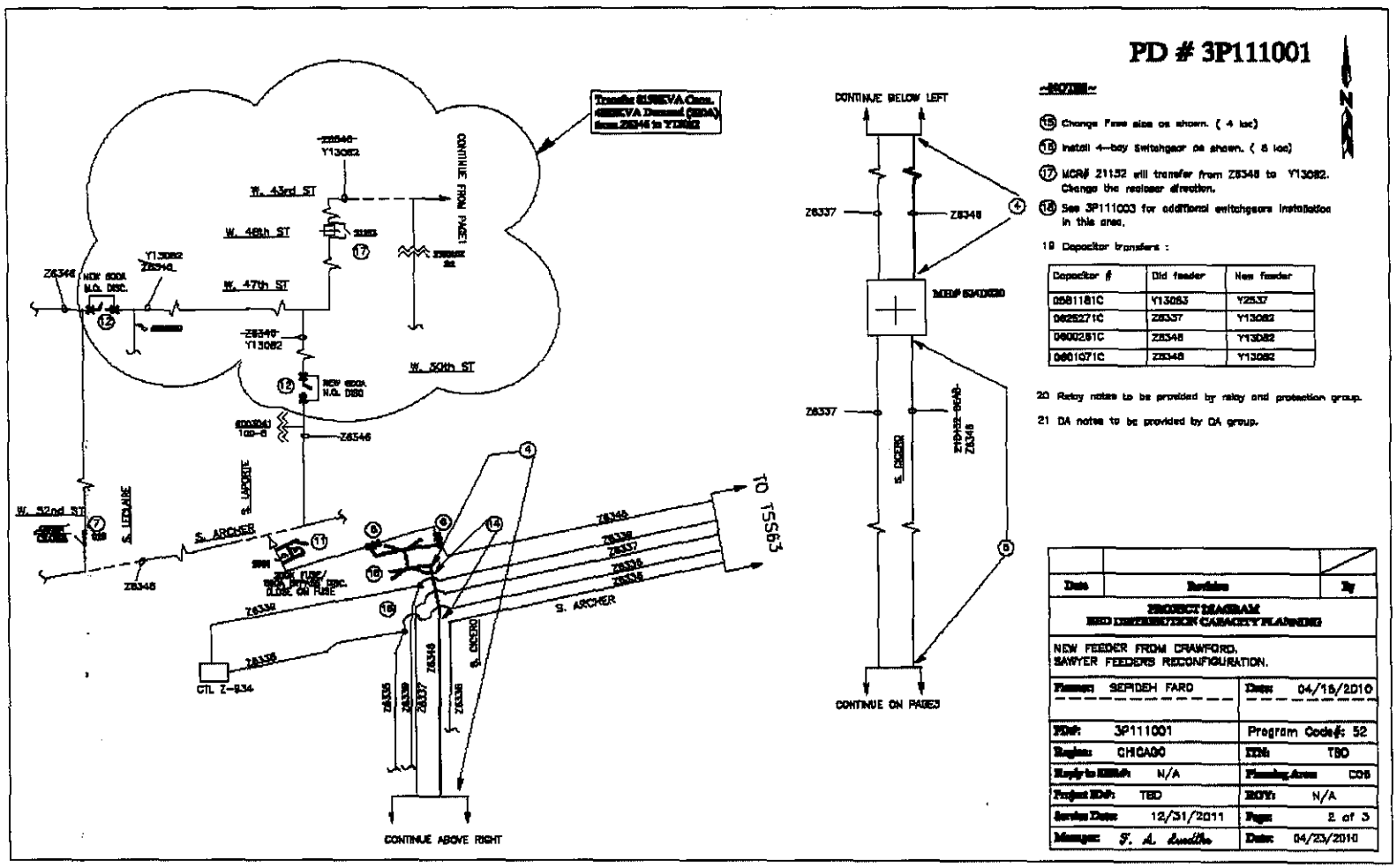
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W. 46th ST
W. 47th ST
W. 50th ST
W. 52nd ST
S. LOOMIS
S. LAPORTE
S. ARCHER
S. OGDEN
TO TS563
CTL Z-934
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Z8337
Y13082
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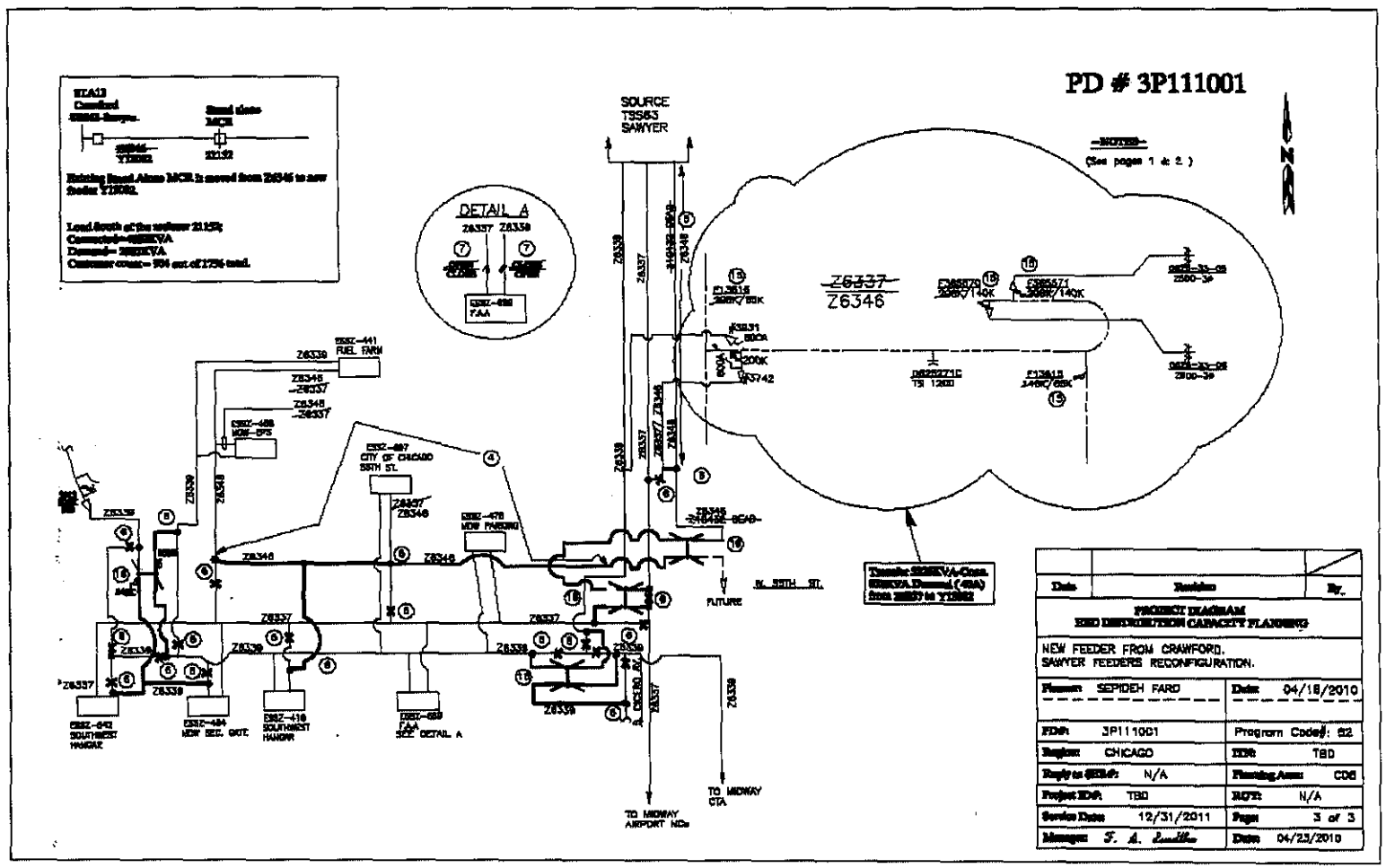
Proposed Solution