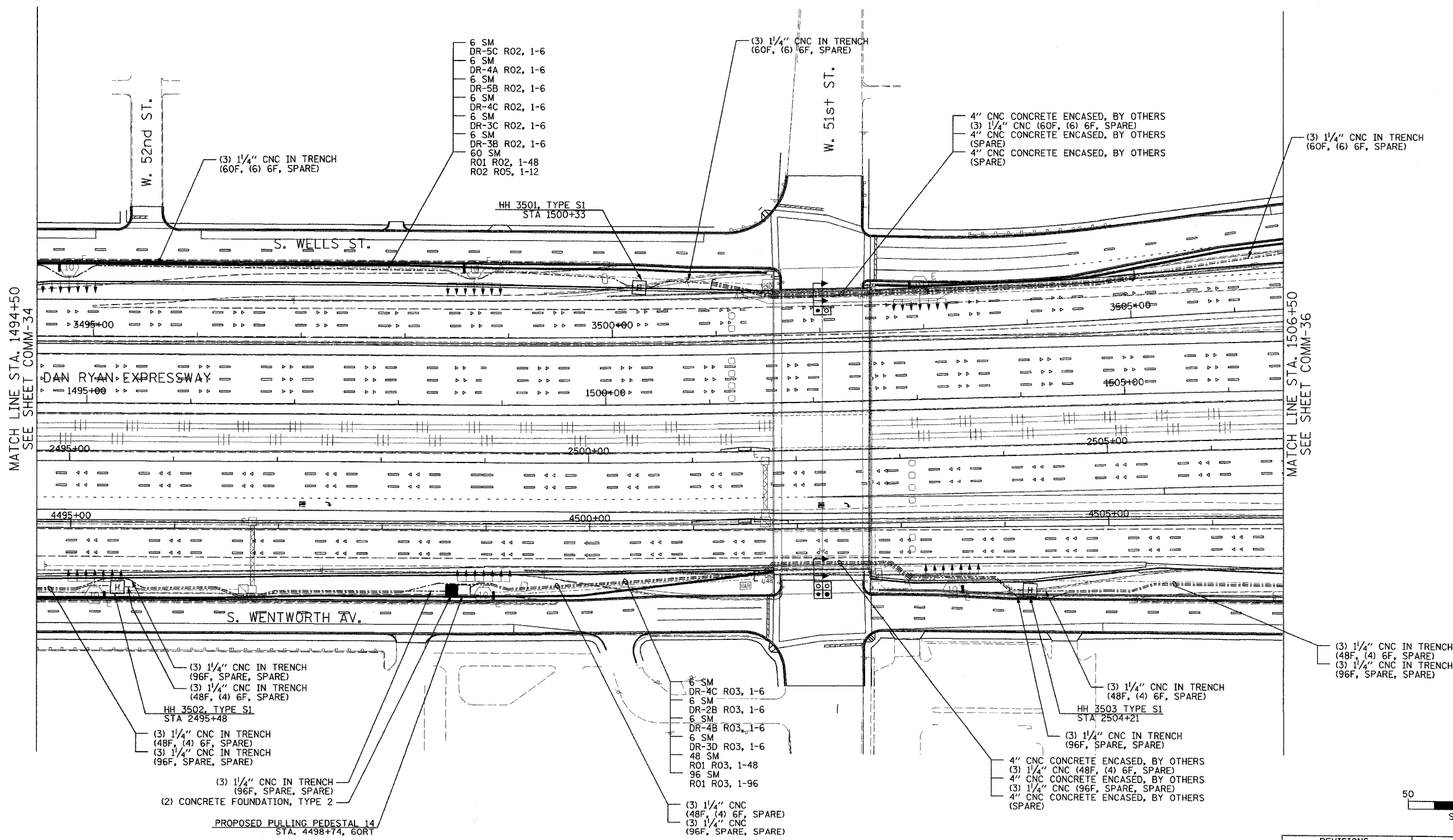
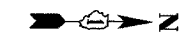
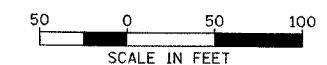


SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	901
STA. 1494+50 TO STA. 1506+50			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			



- NOTES:
- SEE DRAWING ME-01 AND ME-SYSTEMS AND ABBREVIATIONS UNLESS OTHERWISE STATED, CONDUIT TO BE FURNISHED AT THIS CONTRACT.
 - TRENCHED CONDUITS INSTALLED ARE TO BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS FOR COMMUNICATIONS ELEMENTS, OTHER SUBSYSTEMS FOR THE AREA SHOWN.
 - CONTRACTOR TO ROD AND CLEAR PRIOR TO INSTALLING AND PULLING CABLES IN CONDUITS.
 - COMMUNICATIONS CONDUIT SHALL HAVE ELECTRIC HANDHOLES (SEE DETAIL FOR HANDHOLE DETAILS, SEE



COMM-35

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO I-57

COMMUNICATIONS BACKBONE CONDUIT
AND CABLE LAYOUT

SCALE: 1"=50'
DATE: October 29, 2004

DRAWN BY: DHI
CHECKED BY: BA

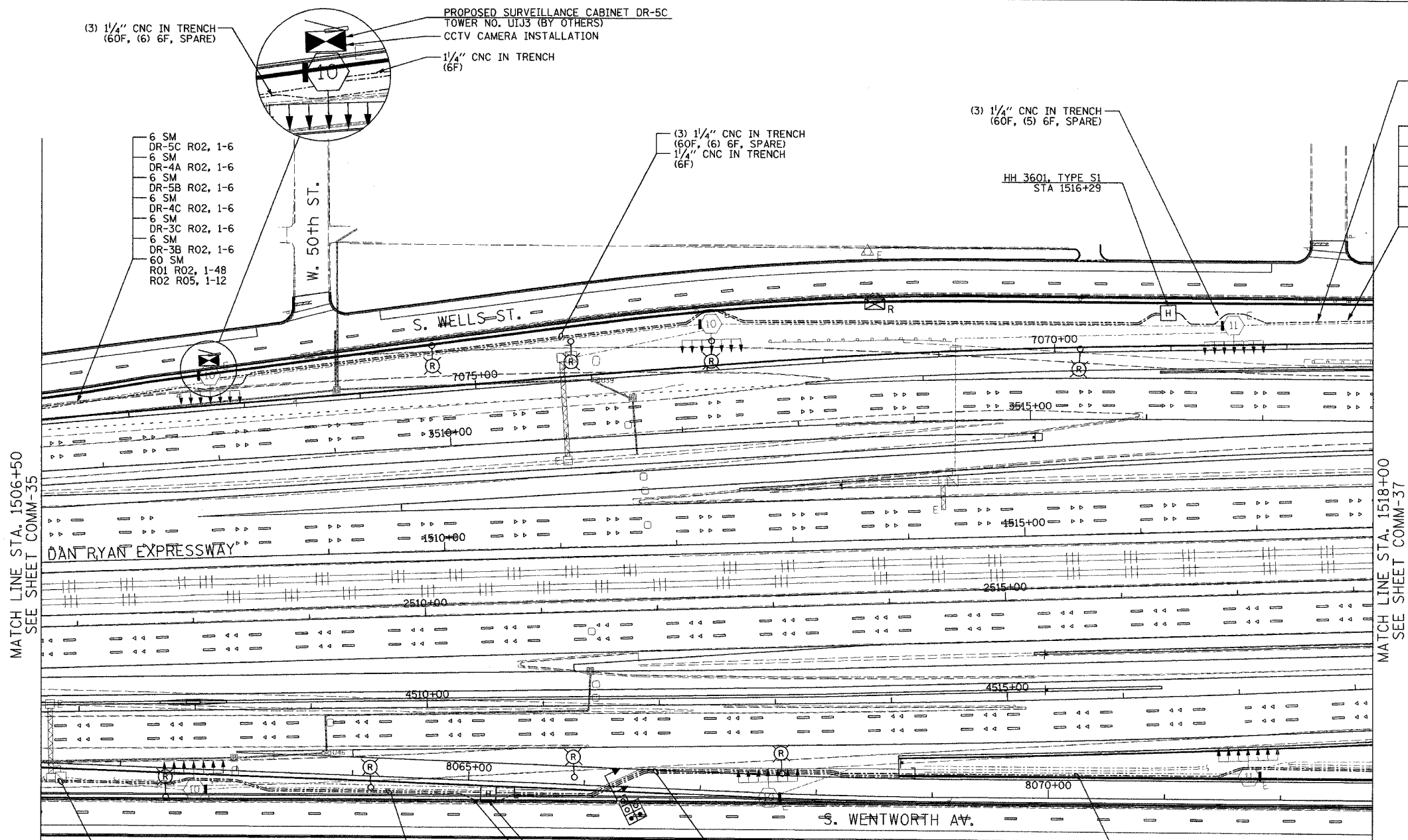
Edwards AND Kelcey

ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	802
STA. 1506+50 TO STA. 1518+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			



MATCH LINE STA. 1506+50
SEE SHEET COMM-35

MATCH LINE STA. 1518+00
SEE SHEET COMM-37

- 6 SM DR-5C R02, 1-6
- 6 SM DR-4A R02, 1-6
- 6 SM DR-5B R02, 1-6
- 6 SM DR-4C R02, 1-6
- 6 SM DR-3C R02, 1-6
- 6 SM DR-3B R02, 1-6
- 60 SM R01 R02, 1-48
- R02 R05, 1-12

- (3) 1/4" CNC IN TRENCH (60F, (6) 6F, SPARE)
- 1/4" CNC IN TRENCH (6F)

- (3) 1/4" CNC IN TRENCH (60F, (5) 6F, SPARE)

- (3) 1/4" CNC IN TRENCH (60F, (5) 6F, SPARE)

- 6 SM DR-4A R02, 1-6
- 6 SM DR-5B R02, 1-6
- 6 SM DR-4C R02, 1-6
- 6 SM DR-3C R02, 1-6
- 6 SM DR-3B R02, 1-6
- 60 SM R01 R02, 1-48
- R02 R05, 1-12

- (3) 1/4" CNC IN TRENCH (48F, (4) 6F, SPARE)
- (3) 1/4" CNC IN TRENCH (96F, SPARE, SPARE)

- 4" CNC CONCRETE ENCASED, BY OTHERS
- (3) 1/4" CNC (48F, (4) 6F, SPARE)
- 4" CNC CONCRETE ENCASED, BY OTHERS
- (3) 1/4" CNC (96F, SPARE, SPARE)
- 4" CNC CONCRETE ENCASED, BY OTHERS (SPARE)

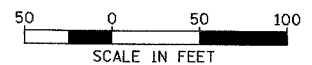
- (3) 1/4" CNC IN TRENCH (48F, (4) 6F, SPARE)
- (3) 1/4" CNC IN TRENCH (96F, SPARE, SPARE)

- 6 SM DR-4C R03, 1-6
- 6 SM DR-2B R03, 1-6
- 6 SM DR-4B R03, 1-6
- 6 SM DR-3D R03, 1-6
- 48 SM R01 R03, 1-48
- 96 SM R01 R03, 1-96

- HH 3603, TYPE S1 STA 8065+18
- (3) 1/4" CNC IN TRENCH (96F, SPARE, SPARE)

NOTES:

1. SEE DRAWING ME-01 AND ME-02 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
2. UNLESS OTHERWISE STATED, ALL NOTED CABLE AND CONDUIT TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT.
3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
4. THIS SHEET ONLY DEPICTS INSTALLATION OF COMMUNICATIONS ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
5. CONTRACTOR TO ROD AND CLEAN EXISTING CONDUITS PRIOR TO INSTALLING AND PULLING INNERDUCTS AND CABLES IN CONDUITS.
6. COMMUNICATIONS CONDUIT SHALL NOT BE INSTALLED IN ELECTRIC HANDHOLES (SEE DETAIL SHEET DT-45).
7. FOR HANDHOLE DETAILS, SEE SHEET DT-44 AND DT-46.



COMM-36

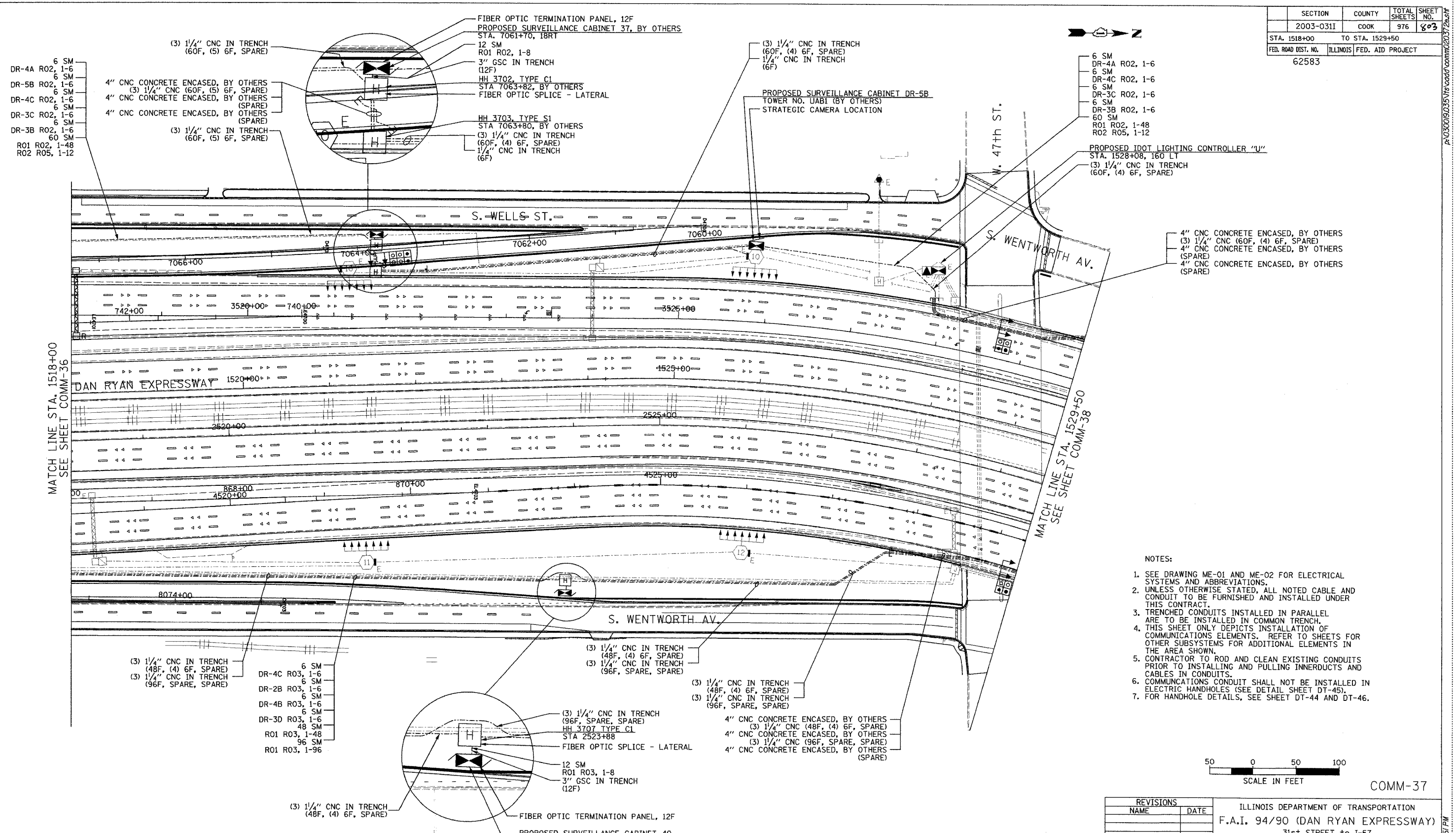
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO I-57
COMMUNICATIONS BACKBONE CONDUIT
AND CABLE LAYOUT
SCALE: 1"=50'
DATE: October 29, 2004
DRAWN BY: DHI
CHECKED BY: BA

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	803
STA. 1518+00 TO STA. 1529+50		ILLINOIS FED. AID PROJECT	
62583			



- DR-4A R02, 1-6
- DR-5B R02, 1-6
- DR-4C R02, 1-6
- DR-3C R02, 1-6
- DR-3B R02, 1-6
- 60 SM
- R01 R02, 1-48
- R02 R05, 1-12

- 4" CNC CONCRETE ENCASED, BY OTHERS
- (3) 1/4" CNC (60F, (5) 6F, SPARE)
- 4" CNC CONCRETE ENCASED, BY OTHERS (SPARE)
- 4" CNC CONCRETE ENCASED, BY OTHERS (SPARE)
- (3) 1/4" CNC IN TRENCH (60F, (5) 6F, SPARE)

- FIBER OPTIC TERMINATION PANEL, 12F
- PROPOSED SURVEILLANCE CABINET 37, BY OTHERS
- STA. 7061+70, 18RT
- 12 SM
- R01 R02, 1-8
- 3" GSC IN TRENCH (12F)
- HH 3702, TYPE C1
- STA 7063+82, BY OTHERS
- FIBER OPTIC SPLICE - LATERAL
- HH 3703, TYPE S1
- STA 7063+80, BY OTHERS
- (3) 1/4" CNC IN TRENCH (60F, (4) 6F, SPARE)
- 1/4" CNC IN TRENCH (6F)

- (3) 1/4" CNC IN TRENCH (60F, (4) 6F, SPARE)
- 1/4" CNC IN TRENCH (6F)
- PROPOSED SURVEILLANCE CABINET DR-5B
- TOWER NO. UABI (BY OTHERS)
- STRATEGIC CAMERA LOCATION

- 6 SM
- DR-4A R02, 1-6
- 6 SM
- DR-4C R02, 1-6
- 6 SM
- DR-3C R02, 1-6
- 6 SM
- DR-3B R02, 1-6
- 60 SM
- R01 R02, 1-48
- R02 R05, 1-12

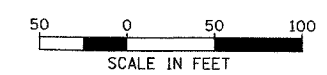
- PROPOSED IDOT LIGHTING CONTROLLER "U"
- STA. 1528+08, 160 LT
- (3) 1/4" CNC IN TRENCH (60F, (4) 6F, SPARE)

- 4" CNC CONCRETE ENCASED, BY OTHERS
- (3) 1/4" CNC (60F, (4) 6F, SPARE)
- 4" CNC CONCRETE ENCASED, BY OTHERS (SPARE)
- 4" CNC CONCRETE ENCASED, BY OTHERS (SPARE)

MATCH LINE STA. 1518+00
SEE SHEET COMM-36

MATCH LINE STA. 1529+50
SEE SHEET COMM-38

- NOTES:
1. SEE DRAWING ME-01 AND ME-02 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE AND CONDUIT TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT.
 3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 4. THIS SHEET ONLY DEPICTS INSTALLATION OF COMMUNICATIONS ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 5. CONTRACTOR TO ROD AND CLEAN EXISTING CONDUITS PRIOR TO INSTALLING AND PULLING INNERDUCTS AND CABLES IN CONDUITS.
 6. COMMUNICATIONS CONDUIT SHALL NOT BE INSTALLED IN ELECTRIC HANDHOLES (SEE DETAIL SHEET DT-45).
 7. FOR HANDHOLE DETAILS, SEE SHEET DT-44 AND DT-46.



- (3) 1/4" CNC IN TRENCH (48F, (4) 6F, SPARE)
- (3) 1/4" CNC IN TRENCH (96F, SPARE, SPARE)

- DR-4C R03, 1-6
- DR-2B R03, 1-6
- DR-4B R03, 1-6
- DR-3D R03, 1-6
- 48 SM
- R01 R03, 1-48
- R01 R03, 1-96

- (3) 1/4" CNC IN TRENCH (48F, (4) 6F, SPARE)
- (3) 1/4" CNC IN TRENCH (96F, SPARE, SPARE)

- (3) 1/4" CNC IN TRENCH (48F, (4) 6F, SPARE)
- (3) 1/4" CNC IN TRENCH (96F, SPARE, SPARE)

- 4" CNC CONCRETE ENCASED, BY OTHERS
- (3) 1/4" CNC (48F, (4) 6F, SPARE)
- 4" CNC CONCRETE ENCASED, BY OTHERS
- (3) 1/4" CNC (96F, SPARE, SPARE)
- 4" CNC CONCRETE ENCASED, BY OTHERS (SPARE)

- (3) 1/4" CNC IN TRENCH (96F, SPARE, SPARE)
- HH 3707 TYPE C1
- STA 2523+88
- FIBER OPTIC SPLICE - LATERAL
- 12 SM
- R01 R03, 1-8
- 3" GSC IN TRENCH (12F)
- FIBER OPTIC TERMINATION PANEL, 12F
- PROPOSED SURVEILLANCE CABINET 40
- STA. 2523+96, 196RT

- (3) 1/4" CNC IN TRENCH (48F, (4) 6F, SPARE)

COMM-37

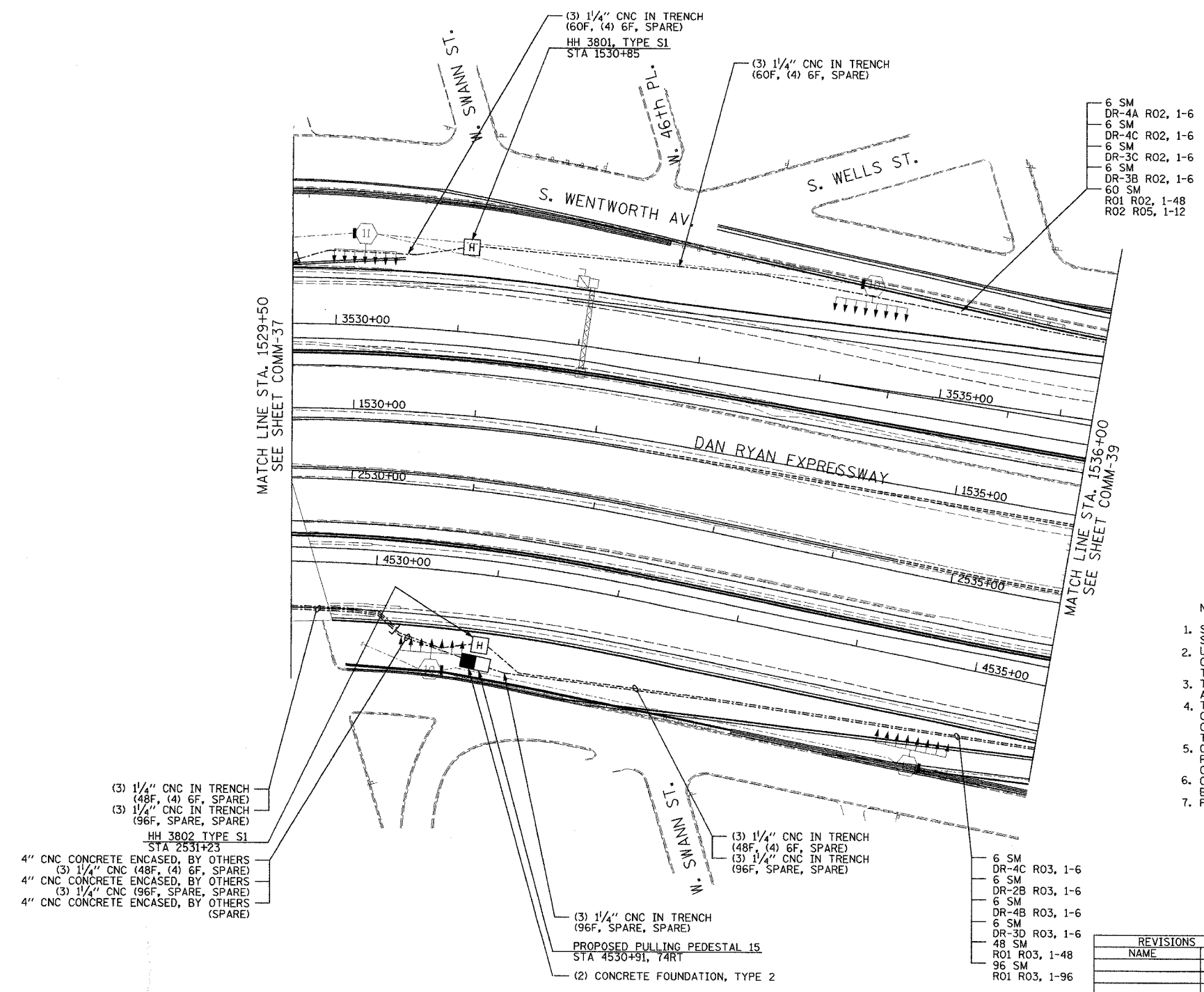
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET TO I-57
 COMMUNICATIONS BACKBONE CONDUIT
 AND CABLE LAYOUT
 SCALE: 1"=50'
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: BA

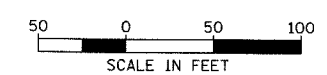
Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EKCORP.COM

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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	804
STA. 1529+50 TO STA. 1536+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			



- NOTES:
- SEE DRAWING ME-01 AND ME-02 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 - UNLESS OTHERWISE STATED, ALL NOTED CABLE AND CONDUIT TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT.
 - TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 - THIS SHEET ONLY DEPICTS INSTALLATION OF COMMUNICATIONS ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 - CONTRACTOR TO ROD AND CLEAN EXISTING CONDUITS PRIOR TO INSTALLING AND PULLING INNERDUCTS AND CABLES IN CONDUITS.
 - COMMUNICATIONS CONDUIT SHALL NOT BE INSTALLED IN ELECTRIC HANDHOLES (SEE DETAIL SHEET DT-45).
 - FOR HANDHOLE DETAILS, SEE SHEET DT-44 AND DT-46.



COMM-38

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57

COMMUNICATIONS BACKBONE CONDUIT
 AND CABLE LAYOUT

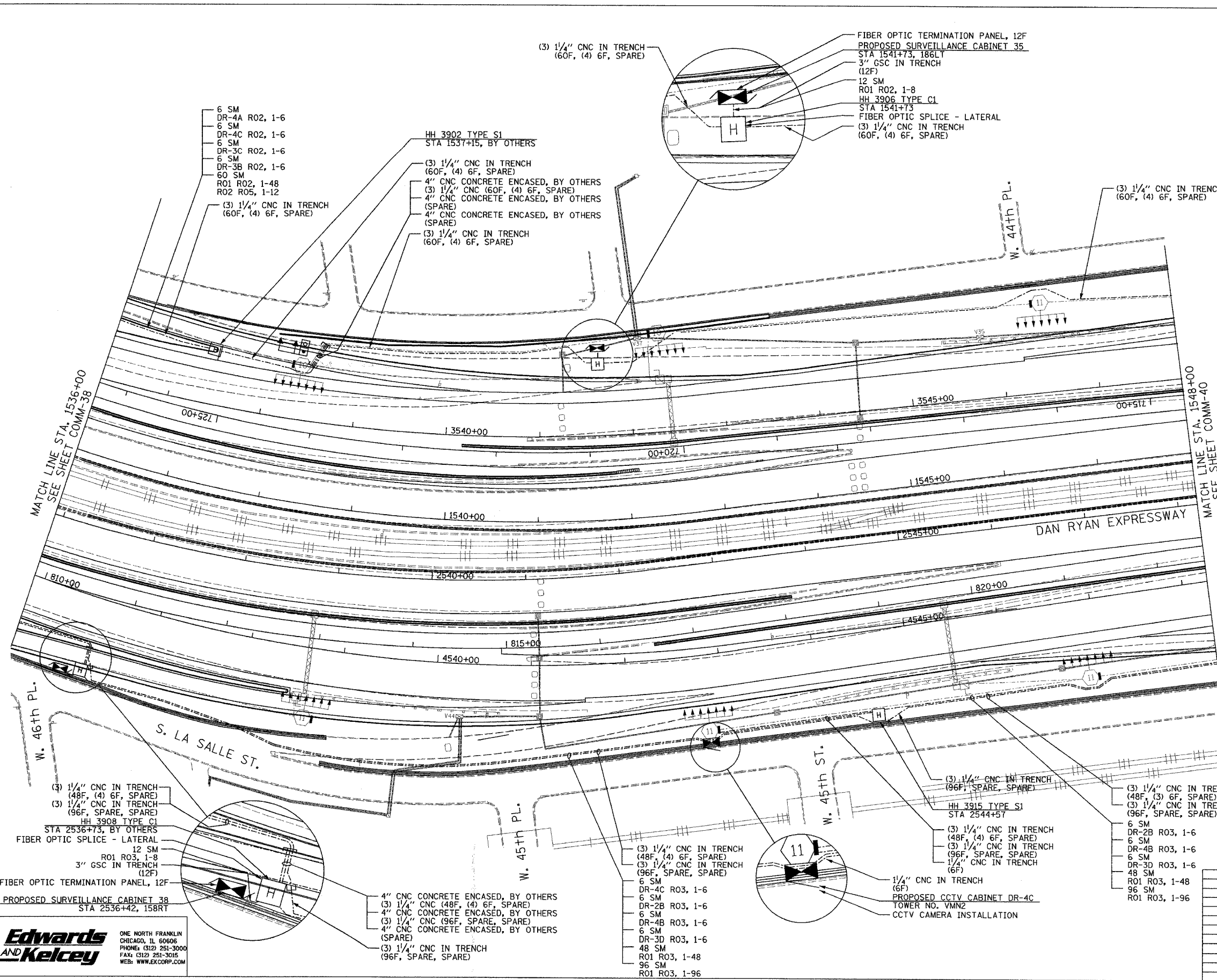
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 DATE: October 29, 2004

DRAWN BY: DHI
 CHECKED BY: BA

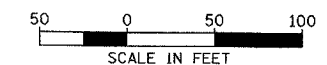
Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EDKCORP.COM

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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	805
STA. 1536+00 TO STA. 1548+00			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		
62583			



- NOTES:
1. SEE DRAWING ME-01 AND ME-02 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE AND CONDUIT TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT.
 3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 4. THIS SHEET ONLY DEPICTS INSTALLATION OF COMMUNICATIONS ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 5. CONTRACTOR TO ROD AND CLEAN EXISTING CONDUITS PRIOR TO INSTALLING AND PULLING INNERDUCTS AND CABLES IN CONDUITS.
 6. COMMUNICATIONS CONDUIT SHALL NOT BE INSTALLED IN ELECTRIC HANDHOLES (SEE DETAIL SHEET DT-45).
 7. FOR HANDHOLE DETAILS, SEE SHEET DT-44 AND DT-46.



COMM-39

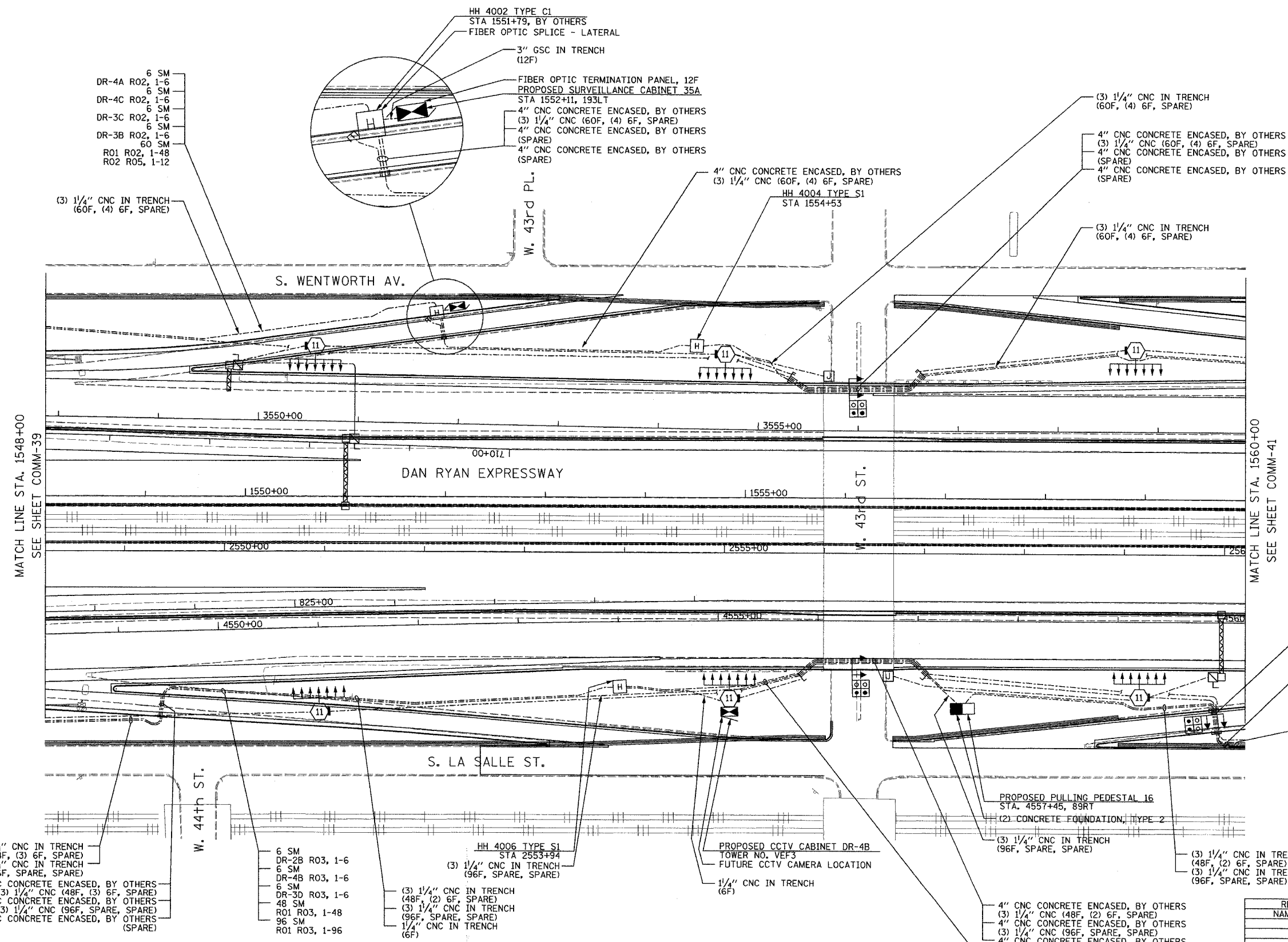
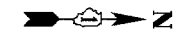
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET TO I-57
 COMMUNICATIONS BACKBONE CONDUIT
 AND CABLE LAYOUT
 SCALE: 1"=50'
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: BA

**Edwards
 AND Kelcey**
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	906
STA. 1548+00 TO STA. 1560+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			



- NOTES:
- SEE DRAWING ME-01 AND ME-02 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 - UNLESS OTHERWISE STATED, ALL NOTED CABLE AND CONDUIT TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT.
 - TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 - THIS SHEET ONLY DEPICTS INSTALLATION OF COMMUNICATIONS ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 - CONTRACTOR TO ROD AND CLEAN EXISTING CONDUITS PRIOR TO INSTALLING AND PULLING INNERDUCTS AND CABLES IN CONDUITS.
 - COMMUNICATIONS CONDUIT SHALL NOT BE INSTALLED IN ELECTRIC HANDHOLES (SEE DETAIL SHEET DT-45).
 - FOR HANDHOLE DETAILS, SEE SHEET DT-44 AND DT-46.

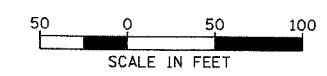
- 4" CNC CONCRETE ENCASED
- (3) 1/4" CNC (48F, (2) 6F, SPARE)
- 4" CNC CONCRETE ENCASED
- (3) 1/4" CNC (96F, SPARE, SPARE)
- 4" CNC CONCRETE ENCASED (SPARE)
- (3) 1/4" CNC IN TRENCH (48F, (2) 6F, SPARE)
- (3) 1/4" CNC IN TRENCH (96F, SPARE, SPARE)
- 6 SM DR-2B R03, 1-6
- 6 SM DR-3D R03, 1-6
- 48 SM R01 R03, 1-48
- 96 SM R01 R03, 1-96

- (3) 1/4" CNC IN TRENCH (48F, (3) 6F, SPARE)
- (3) 1/4" CNC IN TRENCH (96F, SPARE, SPARE)
- 4" CNC CONCRETE ENCASED, BY OTHERS (3) 1/4" CNC (48F, (3) 6F, SPARE)
- 4" CNC CONCRETE ENCASED, BY OTHERS (3) 1/4" CNC (96F, SPARE, SPARE)
- 4" CNC CONCRETE ENCASED, BY OTHERS (SPARE)

- 6 SM DR-2B R03, 1-6
- 6 SM DR-4B R03, 1-6
- 6 SM DR-3D R03, 1-6
- 48 SM R01 R03, 1-48
- 96 SM R01 R03, 1-96

- (3) 1/4" CNC IN TRENCH (48F, (2) 6F, SPARE)
- (3) 1/4" CNC IN TRENCH (96F, SPARE, SPARE)
- 1/4" CNC IN TRENCH (6F)

- 4" CNC CONCRETE ENCASED, BY OTHERS (3) 1/4" CNC (48F, (2) 6F, SPARE)
- 4" CNC CONCRETE ENCASED, BY OTHERS (3) 1/4" CNC (96F, SPARE, SPARE)
- 4" CNC CONCRETE ENCASED, BY OTHERS (SPARE)
- (3) 1/4" CNC IN TRENCH (48F, (2) 6F, SPARE)
- (3) 1/4" CNC IN TRENCH (96F, SPARE, SPARE)



COMM-40

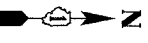
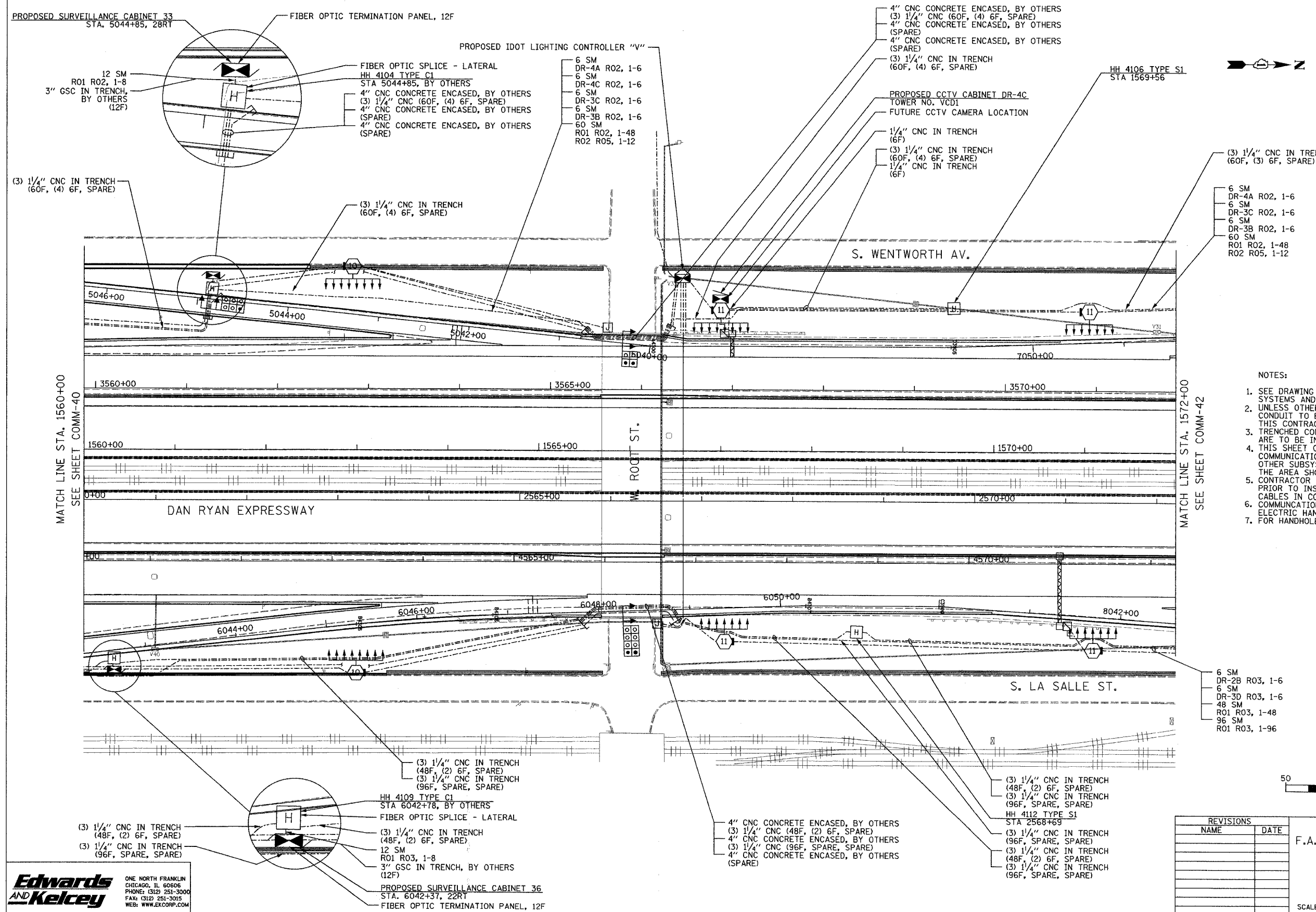
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET TO I-57
 COMMUNICATIONS BACKBONE CONDUIT AND CABLE LAYOUT
 SCALE: 1"=50'
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: BA

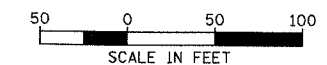
Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EDKORP.COM

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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	807
STA. 1560+00 TO STA. 1572+00			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		
62583			



- NOTES:
- SEE DRAWING ME-01 AND ME-02 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 - UNLESS OTHERWISE STATED, ALL NOTED CABLE AND CONDUIT TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT.
 - TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 - THIS SHEET ONLY DEPICTS INSTALLATION OF COMMUNICATIONS ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 - CONTRACTOR TO ROD AND CLEAN EXISTING CONDUITS PRIOR TO INSTALLING AND PULLING INNERDUCTS AND CABLES IN CONDUITS.
 - COMMUNICATIONS CONDUIT SHALL NOT BE INSTALLED IN ELECTRIC HANDHOLES (SEE DETAIL SHEET DT-45).
 - FOR HANDHOLE DETAILS, SEE SHEET DT-44 AND DT-46.



COMM-41

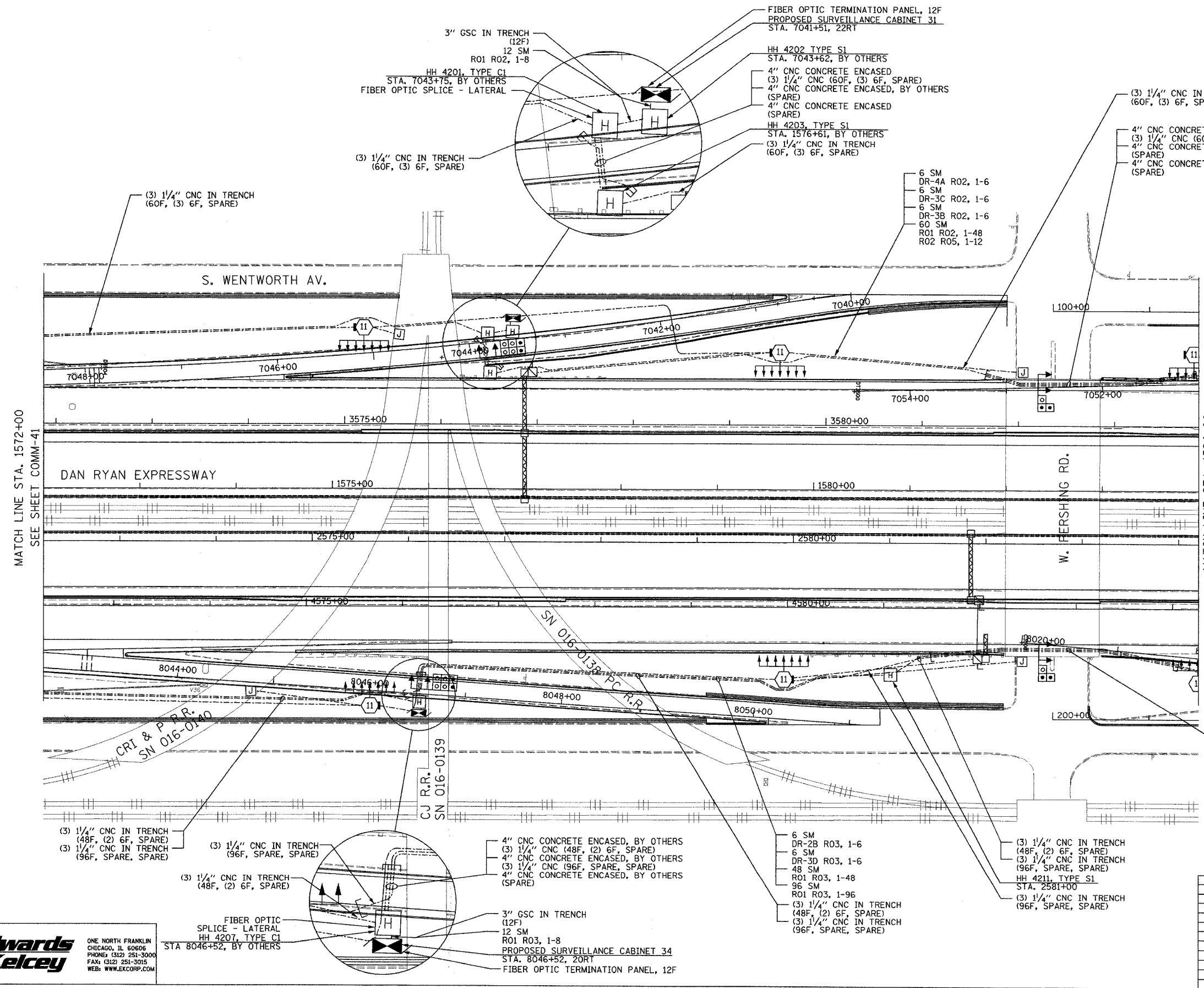
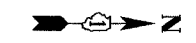
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET TO I-57
 COMMUNICATIONS BACKBONE CONDUIT
 AND CABLE LAYOUT
 SCALE: 1"=50'
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: BA

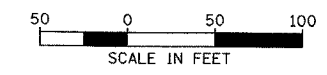
Edwards AND Kelcey
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 PHONE: (312) 251-3000
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 WEB: WWW.EKCORP.COM

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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	808
STA. 1572+00	TO STA. 1584+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	62583



- NOTES:
1. SEE DRAWING ME-01 AND ME-02 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE AND CONDUIT TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT.
 3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 4. THIS SHEET ONLY DEPICTS INSTALLATION OF COMMUNICATIONS ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 5. CONTRACTOR TO ROD AND CLEAN EXISTING CONDUITS PRIOR TO INSTALLING AND PULLING INNERDUCTS AND CABLES IN CONDUITS.
 6. COMMUNICATIONS CONDUIT SHALL NOT BE INSTALLED IN ELECTRIC HANDHOLES (SEE DETAIL SHEET DT-45).
 7. FOR HANDHOLE DETAILS, SEE SHEET DT-44 AND DT-46.



COMM-42

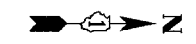
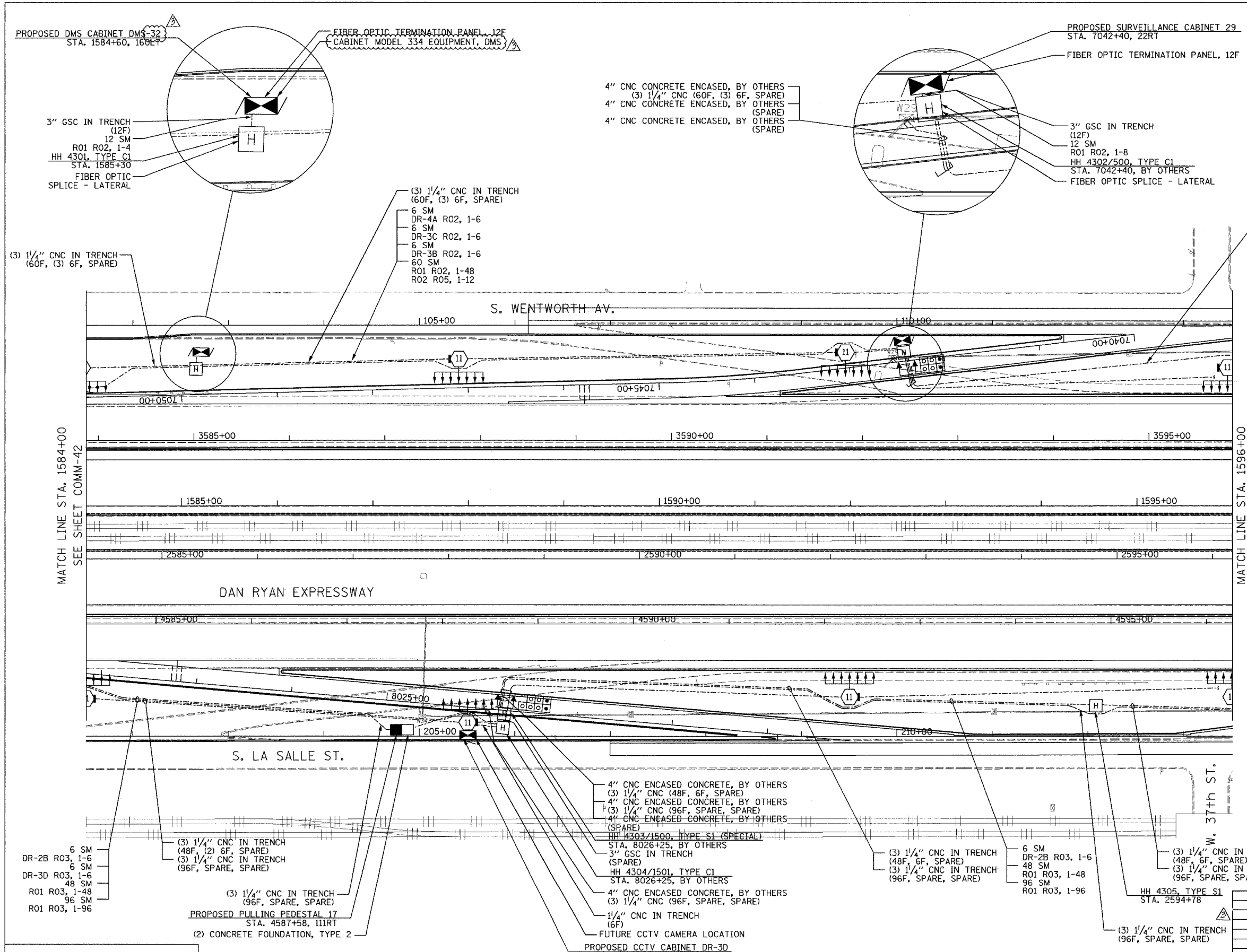
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57
 COMMUNICATIONS BACKBONE CONDUIT
 AND CABLE LAYOUT
 SCALE: 1"=50'
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: BA

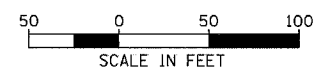
Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE (312) 251-3000
 FAX (312) 251-3015
 WEB: WWW.EKCORP.COM

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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	809
STA. 1584+00 TO STA. 1596+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			



- NOTES:
- SEE DRAWING ME-01 AND ME-02 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 - UNLESS OTHERWISE STATED, ALL NOTED CABLE AND CONDUIT TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT.
 - TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 - THIS SHEET ONLY DEPICTS INSTALLATION OF COMMUNICATIONS ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 - CONTRACTOR TO ROD AND CLEAN EXISTING CONDUITS PRIOR TO INSTALLING AND PULLING INNERDUCTS AND CABLES IN CONDUITS.
 - COMMUNICATIONS CONDUIT SHALL NOT BE INSTALLED IN ELECTRIC HANDHOLES (SEE DETAIL SHEET DT-45).
 - FOR HANDHOLE DETAILS, SEE SHEET DT-44 AND DT-46.



COMM-43

REVISIONS	
NAME	DATE
REVISION	02/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO I-57

COMMUNICATIONS BACKBONE CONDUIT
AND CABLE LAYOUT

SCALE: 1"=50'
DATE: October 29, 2004
DRAWN BY: DHI
CHECKED BY: BA

Edwards and Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

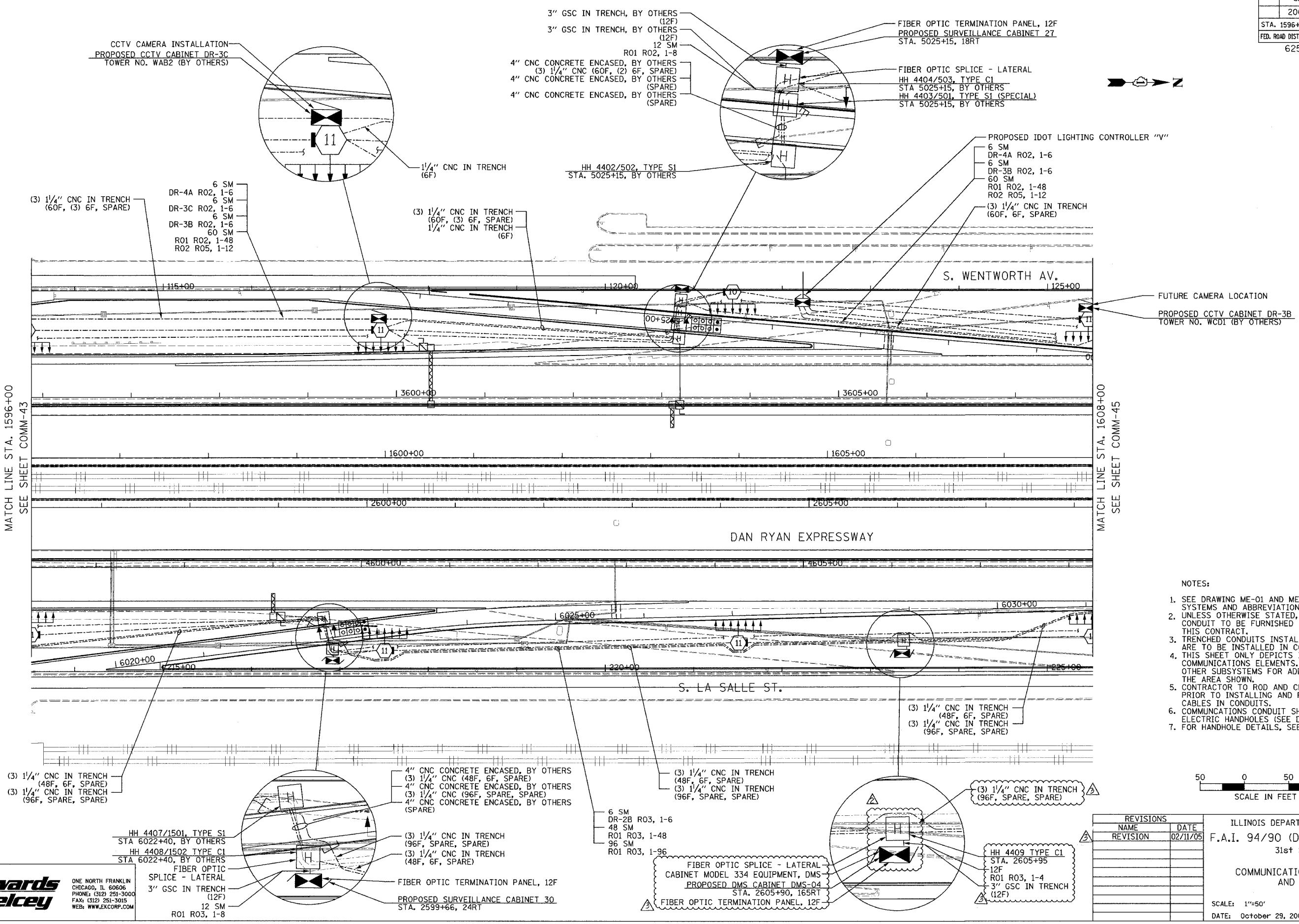
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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	810
STA. 1596+00 TO STA. 1608+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			

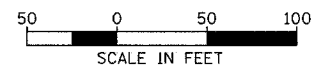


MATCH LINE STA. 1596+00
SEE SHEET COMM-43

MATCH LINE STA. 1608+00
SEE SHEET COMM-45



- NOTES:
- SEE DRAWING ME-01 AND ME-02 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
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 - FOR HANDHOLE DETAILS, SEE SHEET DT-44 AND DT-46.



COMM-44

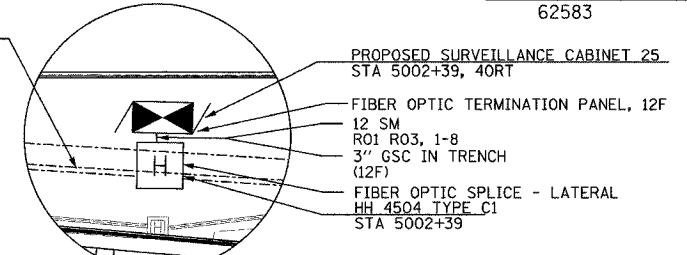
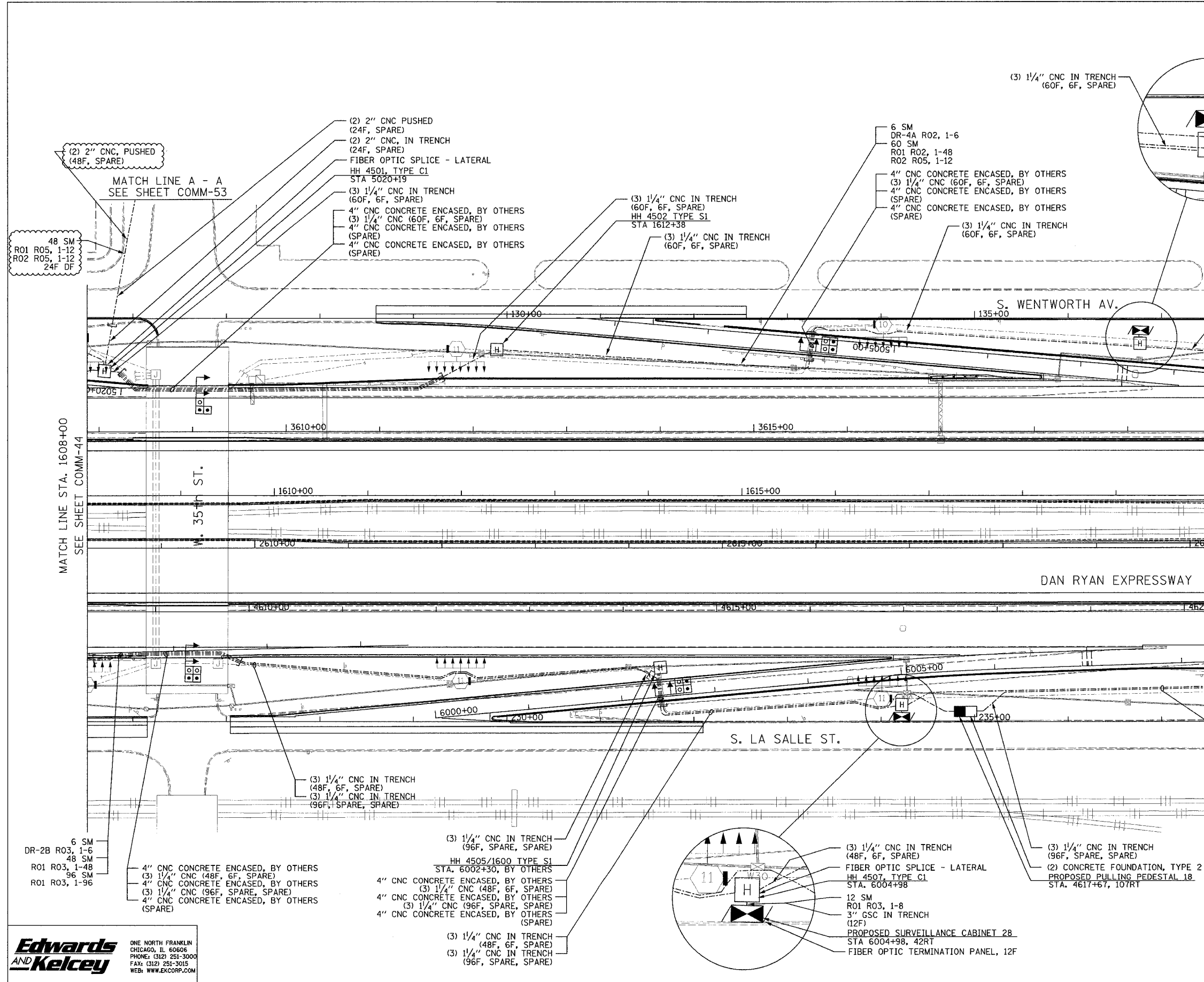
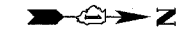
REVISIONS		
NAME	DATE	
REVISION	02/11/05	

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57
 COMMUNICATIONS BACKBONE CONDUIT
 AND CABLE LAYOUT
 SCALE: 1"=50'
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: BA

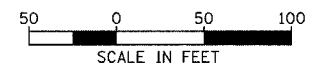
**Edwards
 AND Kelcey**
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EKCORP.COM

02/09/2005 12:04:4 PM

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	811
STA. 1608+00	TO STA. 1620+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			



- NOTES:
- SEE DRAWING ME-01 AND ME-02 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
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 - COMMUNICATIONS CONDUIT SHALL NOT BE INSTALLED IN ELECTRIC HANDHOLES (SEE DETAIL SHEET DT-45).
 - FOR HANDHOLE DETAILS, SEE SHEET DT-44 AND DT-46.



REVISIONS	
NAME	DATE
REVISION 1	10/17/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57
 COMMUNICATIONS BACKBONE CONDUIT
 AND CABLE LAYOUT
 SCALE: 1"=50'
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: BA

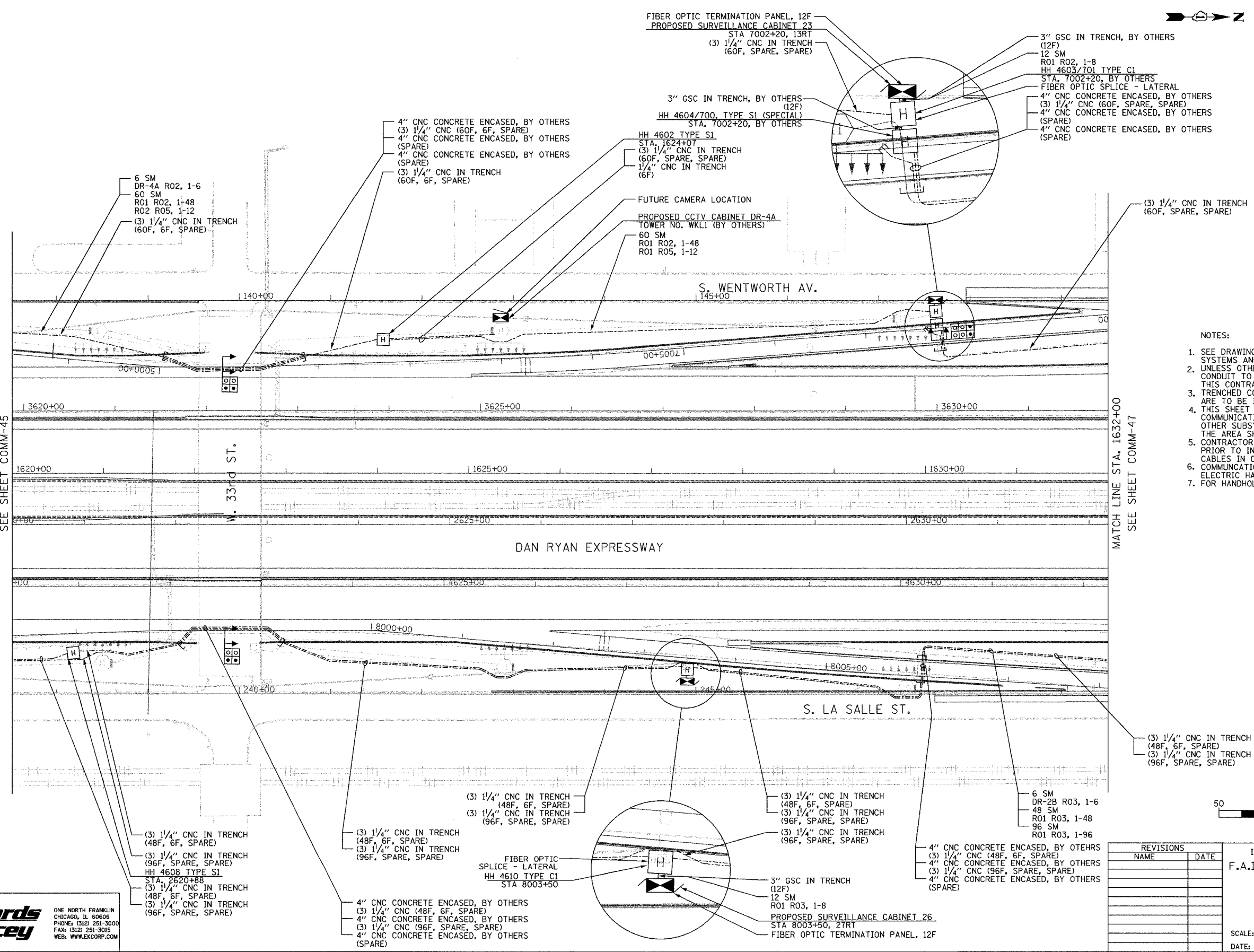
Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EKCORP.COM

P:\0300\94035\Fis\road\comm\020-45-2a.sht 12/15/2004 01:47:40 PM

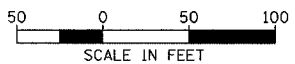
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	812
STA. 1620+00	TO STA. 1632+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
		62583	

MATCH LINE STA. 1620+00
SEE SHEET COMM-45

MATCH LINE STA. 1632+00
SEE SHEET COMM-47



- NOTES:
1. SEE DRAWING ME-01 AND ME-02 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE STATED, ALL NOTED CABLE AND CONDUIT TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT.
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 7. FOR HANDHOLE DETAILS, SEE SHEET DT-44 AND DT-46.



COMM-46

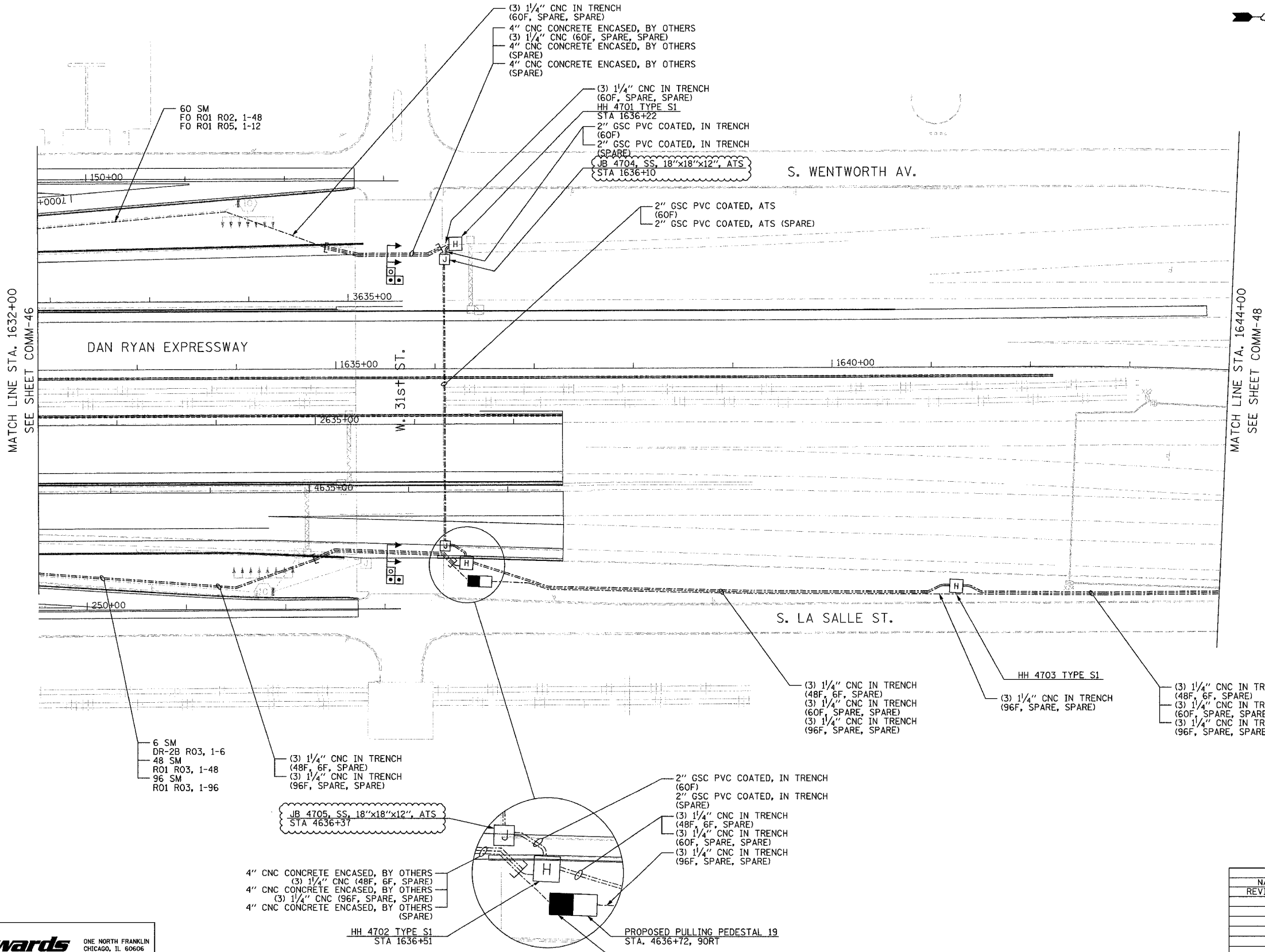
Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EKCORP.COM

REVISIONS	
NAME	DATE

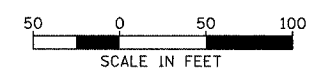
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57
 COMMUNICATIONS BACKBONE CONDUIT
 AND CABLE LAYOUT
 SCALE: 1"=50'
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: BA

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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	813
STA. 1632+00	TO STA. 1644+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			



- NOTES:
- SEE DRAWING ME-01 AND ME-02 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 - UNLESS OTHERWISE STATED, ALL NOTED CABLE AND CONDUIT TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT.
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 - COMMUNICATIONS CONDUIT SHALL NOT BE INSTALLED IN ELECTRIC HANDHOLES (SEE DETAIL SHEET DT-45).
 - FOR HANDHOLE DETAILS, SEE SHEET DT-44 AND DT-46.
 - FOR JUNCTION BOX / ATTACHED CONDUIT INSTALLATION, SEE SHEET ME-05.
 - CONTRACTOR SHALL MAINTAIN MINIMUM 24" BENDING RADIUS FOR ALL CONDUIT WITH FIBER OPTIC CABLES.



COMM-47

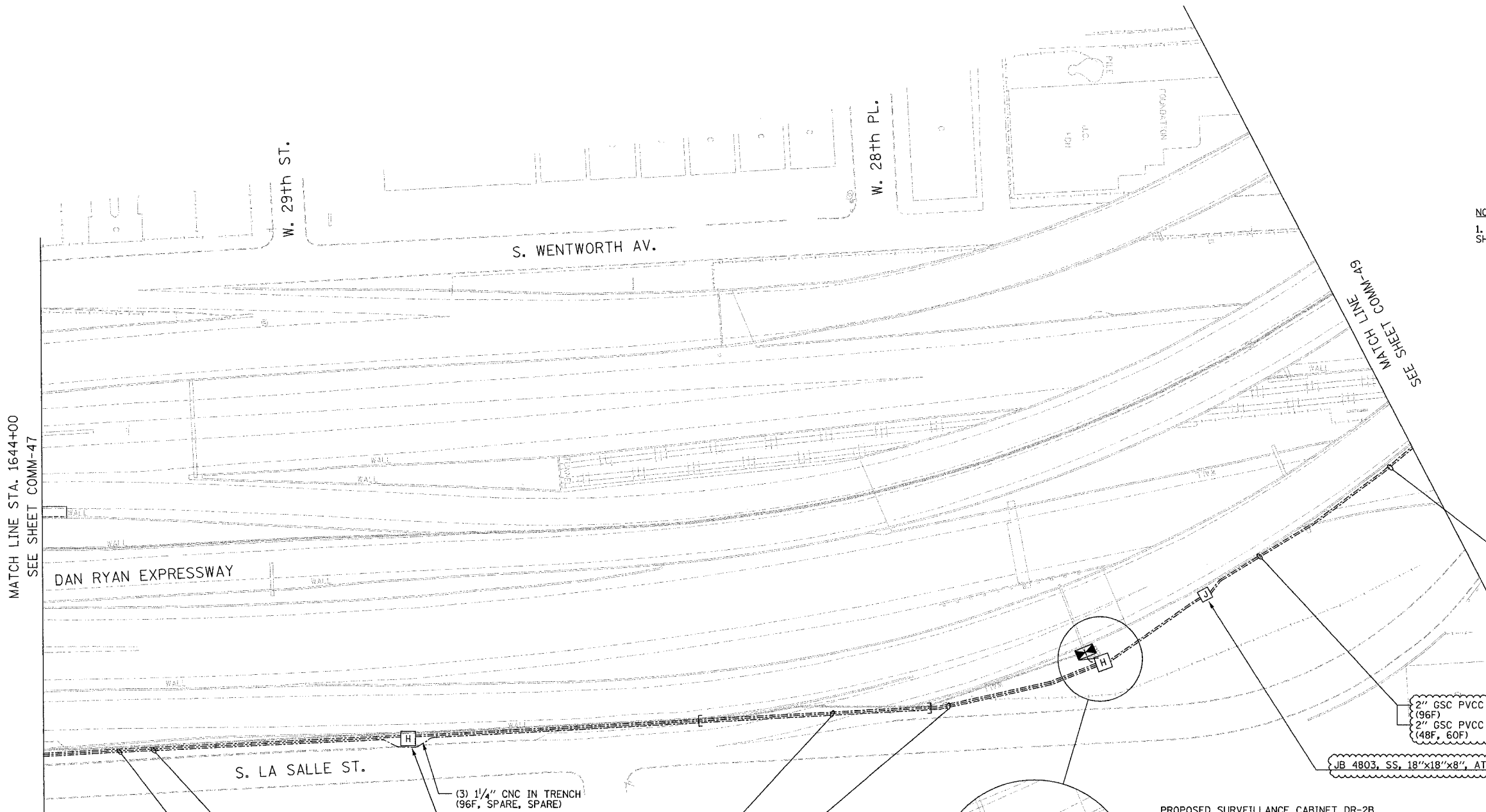
REVISIONS	
NAME	DATE
REVISION 1	12/17/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET TO I-57
 COMMUNICATIONS BACKBONE CONDUIT
 AND CABLE LAYOUT
 SCALE: 1"=50'
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: MJL

Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EKCORP.COM

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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	814
STA. 1644+00	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			

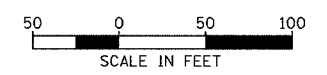


NOTES:
 1. FOR CONDUIT ATTACHMENT DETAILS, SEE SHEET DT-52.

- 48 SM
- R01 R03, 1-48
- 48 SM
- R01 R02, 1-48
- 12 SM
- R01 ETP, 1-12
- 96 SM
- R01 R03, 1-96

2" GSC PVCC ATS (NOTE 1)
(96F)
 2" GSC PVCC ATS (NOTE 1)
(48F, 60F)

JB 4803, SS, 18"x18"x8", ATS



SCALE IN FEET
 COMM-48

- (3) 1/4" CNC IN TRENCH (48F, 6F, SPARE)
- (3) 1/4" CNC IN TRENCH (60F, SPARE, SPARE)
- (3) 1/4" CNC IN TRENCH (96F, SPARE, SPARE)
- 6 SM
- CCTV-14 R03, 1-6
- 48 SM
- R01 R03, 1-48
- 48 SM
- R01 R02, 1-48
- 12 SM
- R01 ETP, 1-12
- 96 SM
- R01 R03, 1-96

(3) 1/4" CNC IN TRENCH (96F, SPARE, SPARE)
 HH 4801 TYPE S1

- 4" CNC PUSHED (96F, SPARE, SPARE)
- 4" CNC PUSHED (60F, SPARE, SPARE)
- 4" CNC PUSHED (48F, 6F, SPARE)
- (3) 1/4" CNC IN TRENCH (96F, SPARE, SPARE)
- (3) 1/4" CNC IN TRENCH (60F, SPARE, SPARE)
- (3) 1/4" CNC IN TRENCH (48F, 6F, SPARE)

- 1/4" CNC IN TRENCH (6F)
- (3) 1/4" CNC IN TRENCH (60F, SPARE, SPARE)
- (3) 1/4" CNC IN TRENCH (48F, 6F, SPARE)
- (3) 1/4" CNC IN TRENCH (96F, SPARE, SPARE)

2" GSC IN TRENCH (48F, 60F)
 2" GSC IN TRENCH (96F)

HH 4802 TYPE C1

PROPOSED SURVEILLANCE CABINET DR-2B

REVISIONS		
NAME	DATE	
REVISION 1	12/17/04	

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57

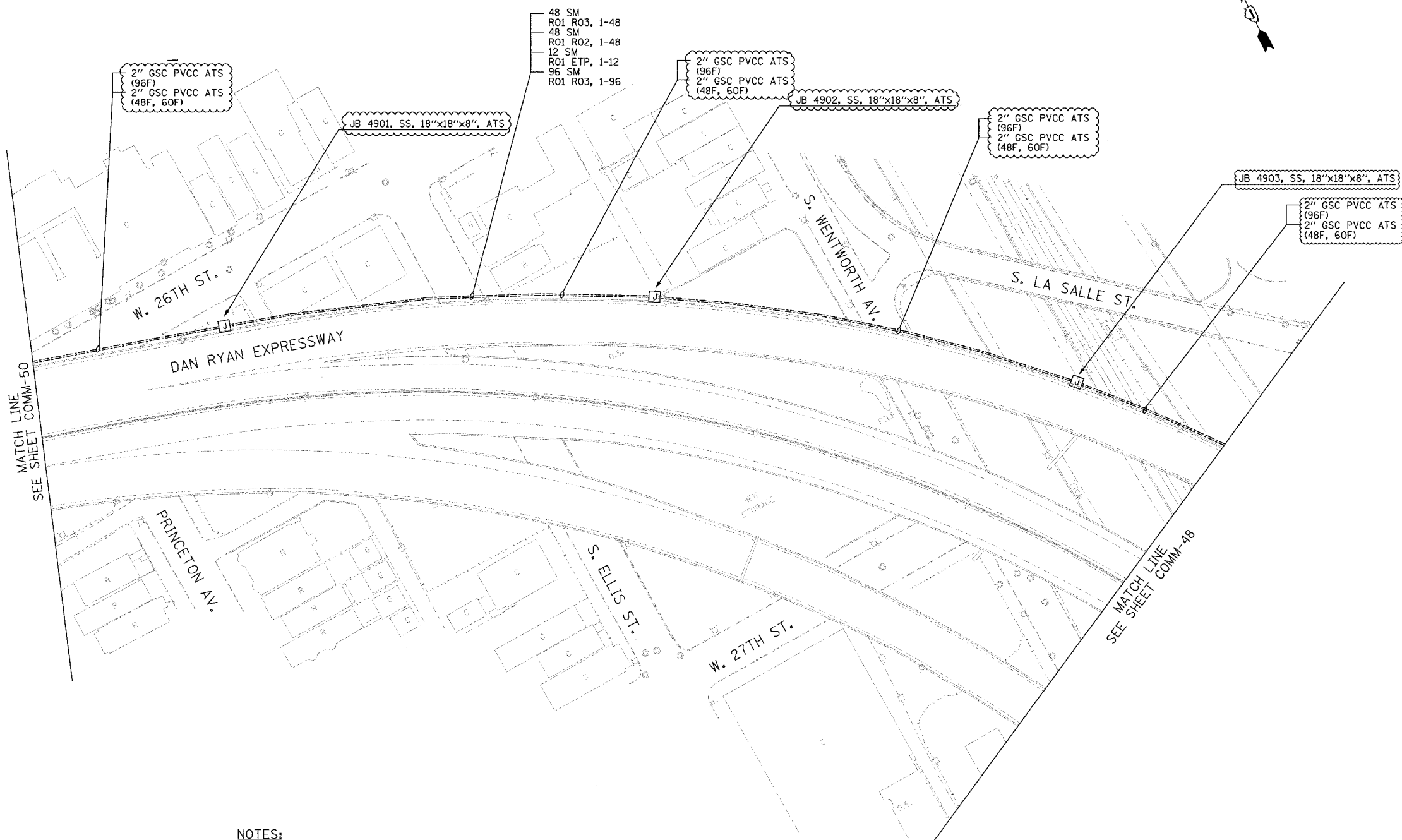
COMMUNICATIONS BACKBONE CONDUIT AND CABLE LAYOUT

SCALE: 1"=50'
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: MJL

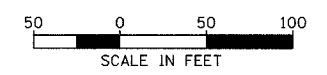
Edwards AND Kelcey
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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	815
STA. 1644+00	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			



NOTES:
1. FOR CONDUIT AND JUNCTION BOX ATTACHMENT DETAILS, SEE SHEET DT-52.



COMM-49

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

REVISIONS	
NAME	DATE
REVISION 1	12/17/04

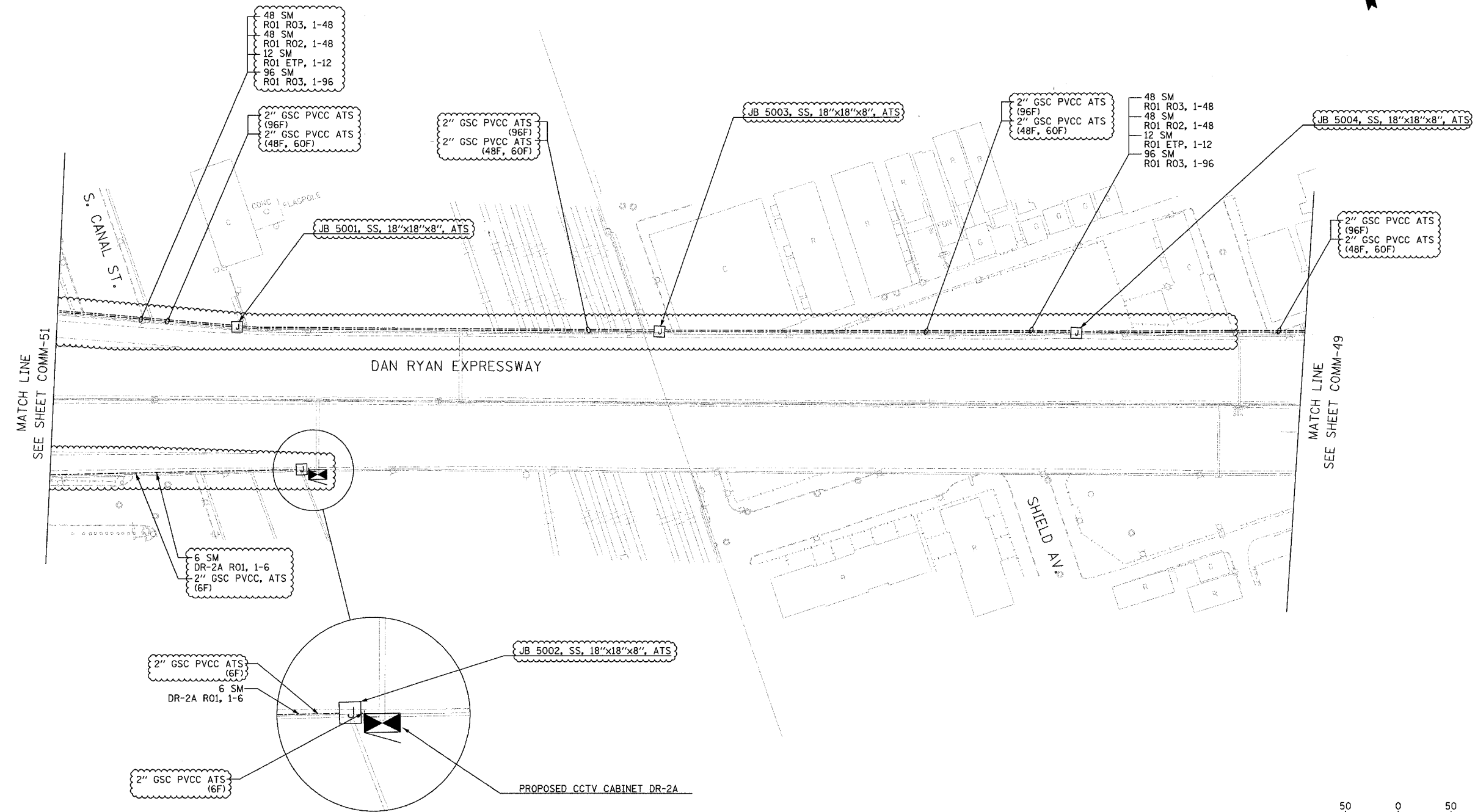
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57

COMMUNICATIONS BACKBONE CONDUIT
AND CABLE LAYOUT

SCALE: 1"=50'
DATE: October 29, 2004
DRAWN BY: DHI
CHECKED BY: MJL

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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	816
STA. 1644+00	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			



MATCH LINE
SEE SHEET COMM-51

MATCH LINE
SEE SHEET COMM-49

NOTES:
1. FOR CONDUIT AND JUNCTION BOX ATTACHMENT DETAILS, SEE SHEET DT-52.



COMM-50

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCCORP.COM

REVISIONS	
NAME	DATE
REVISION 1	12/17/04

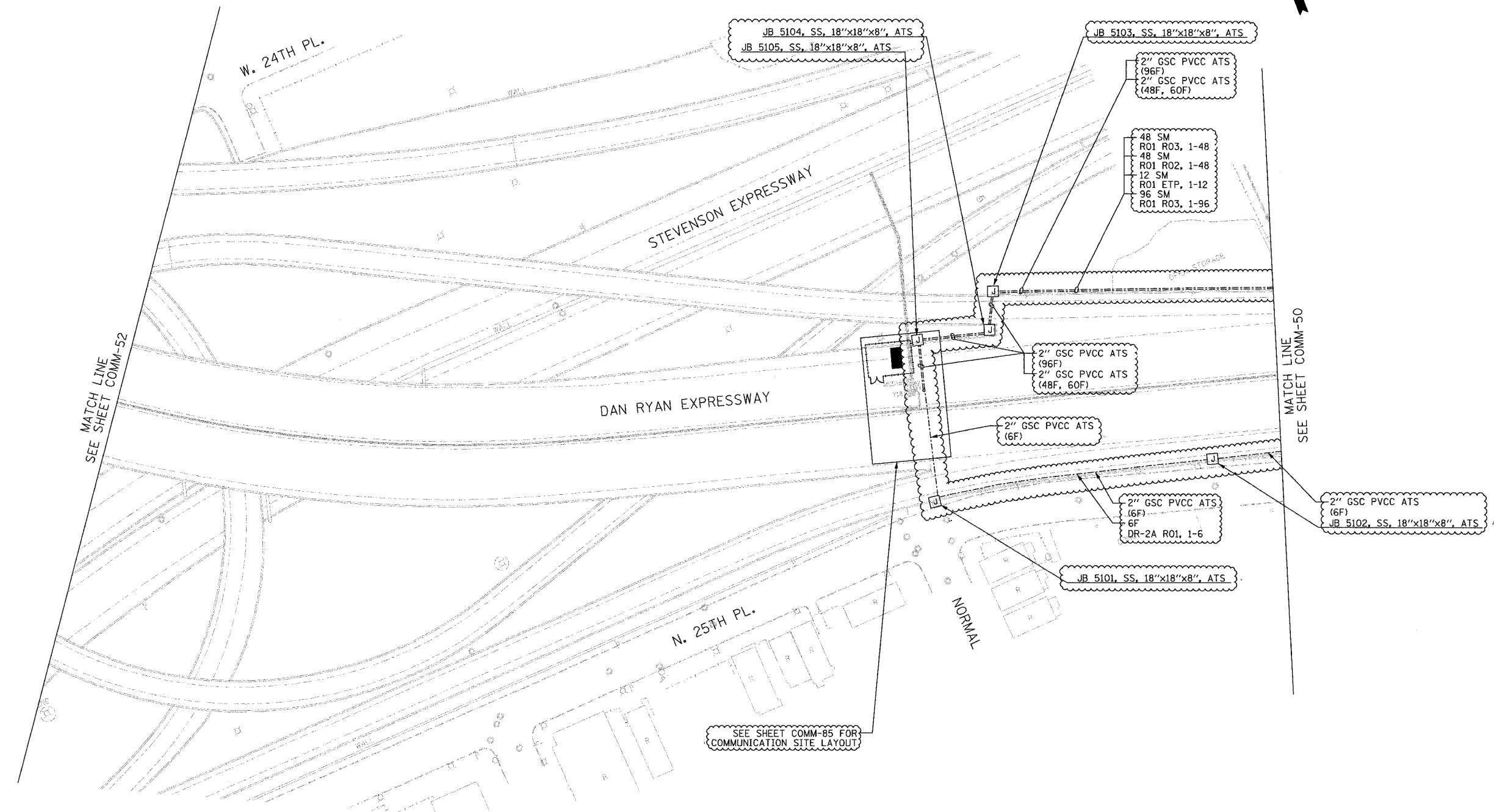
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57

COMMUNICATIONS BACKBONE CONDUIT
AND CABLE LAYOUT

SCALE: 1"=50'
DATE: October 29, 2004
DRAWN BY: DHI
CHECKED BY: MJL

12/10/2004 02:48:18 PM

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	817
STA. 1644+00	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			

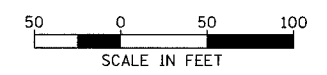


MATCH LINE
SEE SHEET COMM-52

MATCH LINE
SEE SHEET COMM-50

SEE SHEET COMM-85 FOR
COMMUNICATION SITE LAYOUT

- NOTES:**
1. PROPOSED COMMUNICATION SHELTER (R01) SET AT GRADE UNDER DAN RYAN EXPRESSWAY STRUCTURE. SEE SHEET (COMM-85) FOR SHELTER SITE LAYOUT.
 2. FOR CONDUIT AND JUNCTION BOX ATTACHMENT DETAILS, SEE SHEET DT-52.



COMM-51

**Edwards
AND
Kelcey**
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

REVISIONS	
NAME	DATE
REVISION 1	12/17/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57

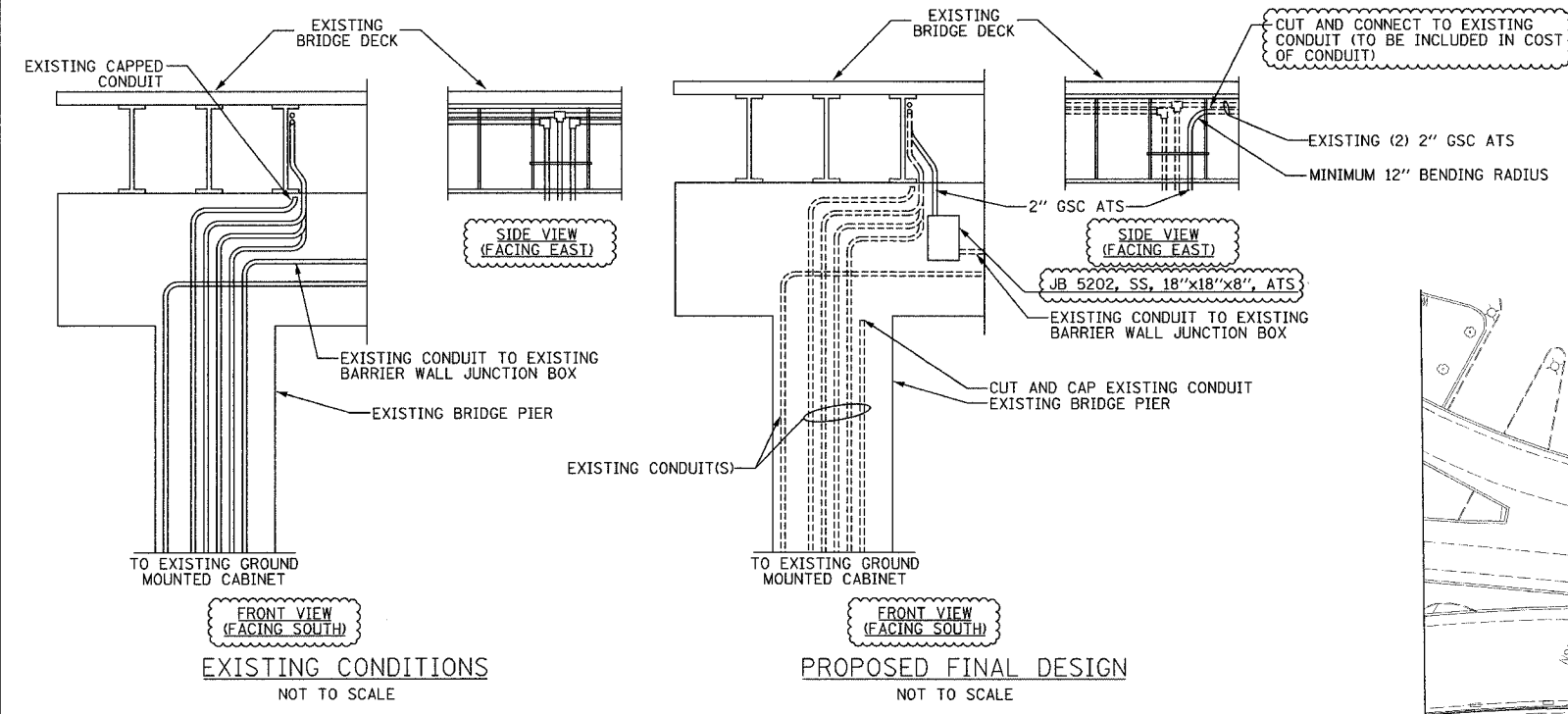
COMMUNICATIONS BACKBONE CONDUIT
AND CABLE LAYOUT

SCALE: 1"=50'
DATE: October 29, 2004

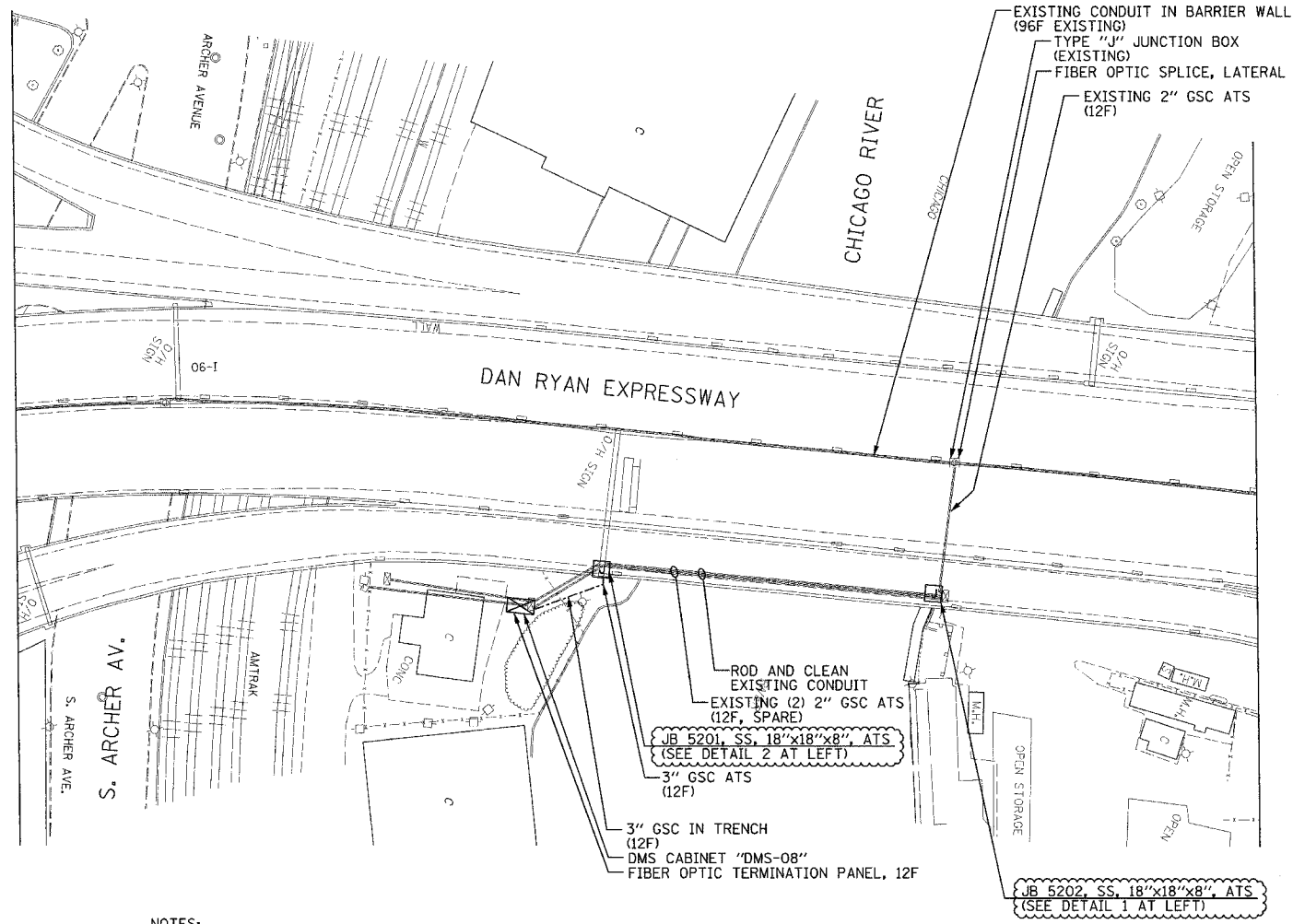
DRAWN BY: DHI
CHECKED BY: MJL

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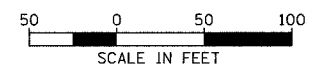
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	818
STA. 1644+00 TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			



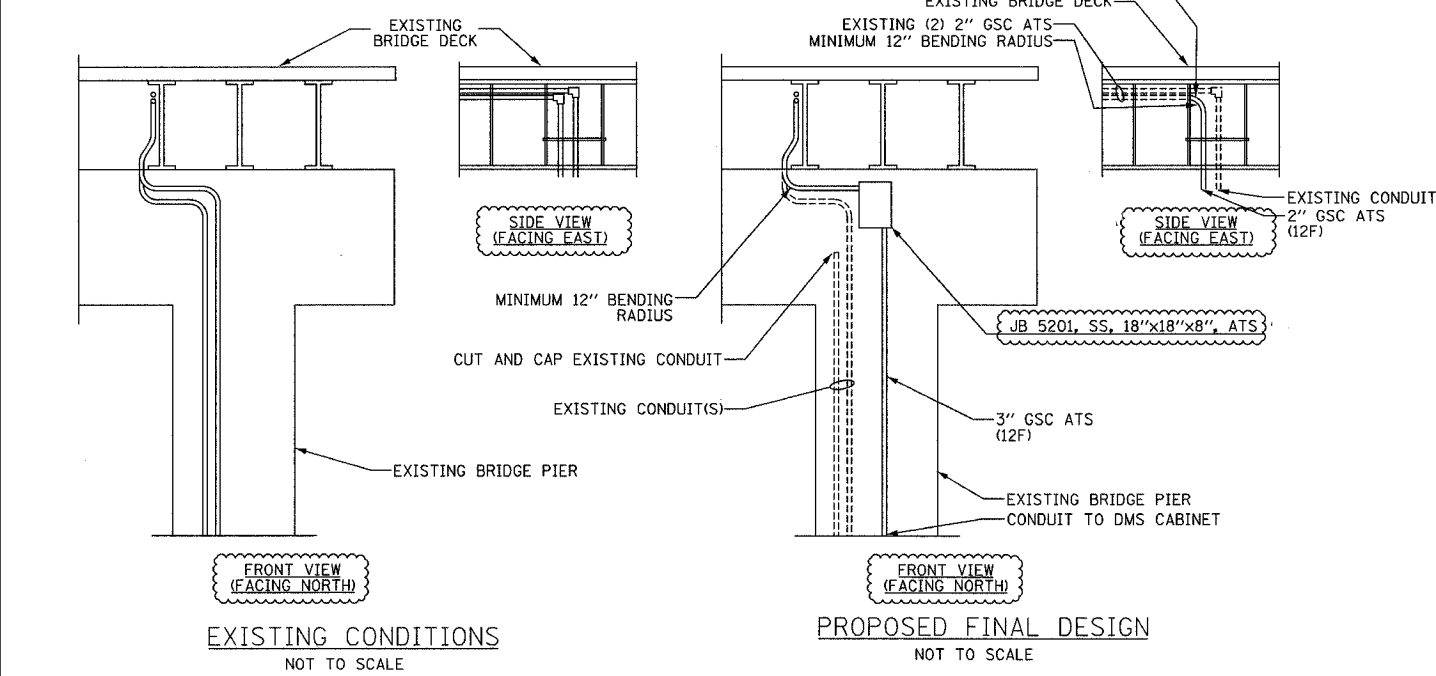
DETAIL 1 (NORTH OF CHICAGO RIVER)



- NOTES:**
- SEE DRAWING ME-01 AND ME-02 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
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 - FOR HANDHOLE DETAILS, SEE SHEET DT-44 AND DT-46.
 - THE CONTRACTOR SHALL TAKE STEPS TO ENSURE THAT THE OPERATION OF THE COMMUNICATION SYSTEM IS NOT IMPACTED. WORK REQUIRING LANE CLOSURES SHALL ONLY BE EXECUTED ON WEEKENDS, HOLIDAY AND SPECIAL EVENT WEEKENDS SHALL BE EXCLUDED. THE CONTRACTOR SHALL COORDINATE AND RECEIVE PRIOR APPROVAL FROM THE ENGINEER FOR ALL WORK THAT COULD IMPACT THE OPERATIONAL SYSTEMS. REQUESTS FOR APPROVAL SHALL BE MADE TO THE ENGINEER A MINIMUM OF 72 HOURS PRIOR TO THE ACTUAL COMMENCEMENT OF WORK.
 - REFER TO DETAL ME-07C FOR CONDUIT CLAMP INSTALLATION DETAILS.



SCALE IN FEET COMM-52



DETAIL 2 (SOUTH OF CHICAGO RIVER)

REVISIONS		NAME	DATE
NO.	DESCRIPTION		
1			12/17/04

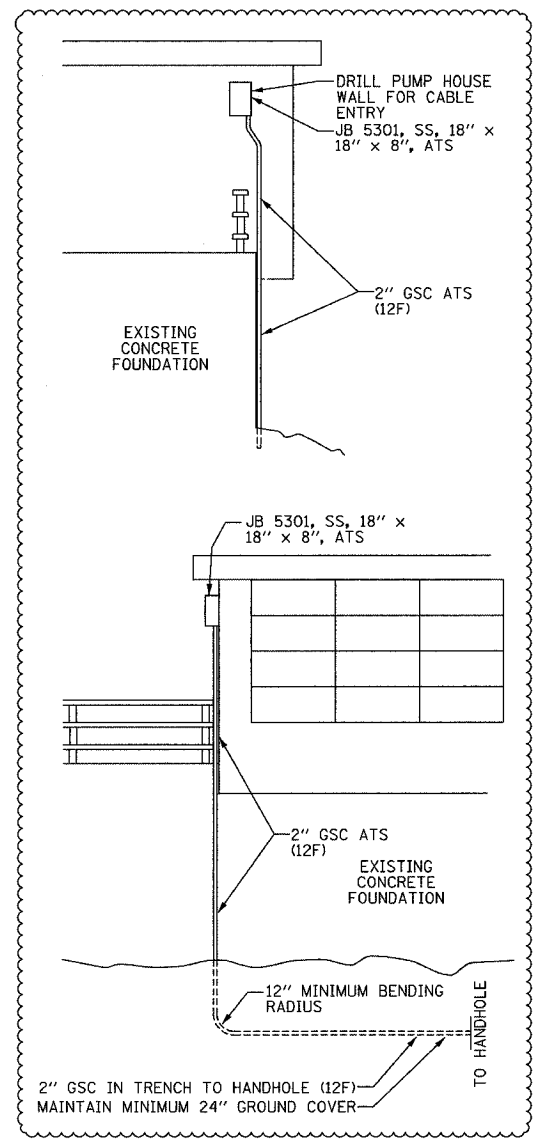
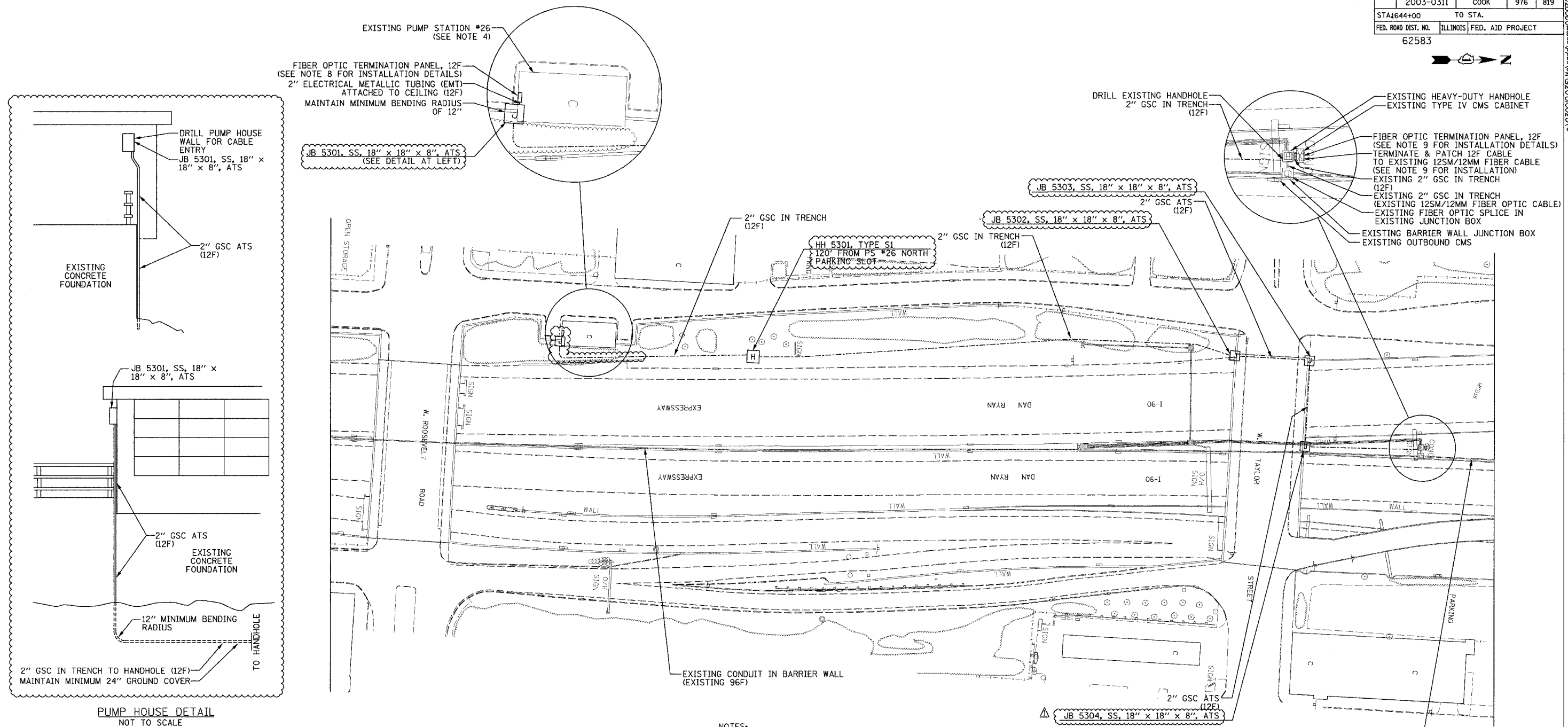
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57
CHICAGO RIVER DMS COMMUNICATIONS CONDUIT AND CABLE LAYOUT

SCALE: 1"=50'
DATE: October 29, 2004
DRAWN BY: DHI
CHECKED BY: MJL

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
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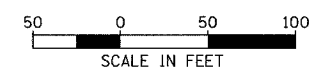
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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	819
STA 1644+00 TO STA.			
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT	
62583			



PUMP HOUSE DETAIL
NOT TO SCALE

- NOTES:
1. SEE DRAWING ME-01 AND ME-02 FOR ELECTRICAL SYSTEMS AND ABBREVIATIONS.
 2. UNLESS OTHERWISE NOTED, ALL NOTED CABLE AND CONDUIT TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT.
 3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 4. THIS SHEET ONLY DEPICTS INSTALLATION OF COMMUNICATIONS ELEMENTS. REFER TO SHEETS FOR OTHER SUBSYSTEMS FOR ADDITIONAL ELEMENTS IN THE AREA SHOWN.
 5. CONTRACTOR TO ROD AND CLEAN EXISTING CONDUITS PRIOR TO INSTALLING AND PULLING INNERDUCTS AND CABLES IN CONDUITS.
 6. COMMUNICATIONS CONDUIT SHALL NOT BE INSTALLED IN ELECTRICAL HANDHOLES (SEE DETAIL SHEET 45).
 7. FOR HANDHOLE DETAILS, SEE SHEET DT-44 AND DT-46.
 8. CONTRACTOR SHALL INSTALL FIBER OPTIC TERMINATION PANEL IN THE EXISTING 19" HAR EQUIPMENT CABINET (BY OTHERS) IN PUMP STATION #26.
 9. CONTRACTOR SHALL COORDINATE WITH ENGINEER WHEN PATCHING FIBER OPTIC CABLE AT THE EXISTING CMS CABINET. THE WORK AT THIS CABINET SHALL INCLUDE THE NECESSARY FIBER OPTIC FURCATION KIT TO BREAK OUT AND PROTECT THE 12 FIBER CABLE. THE COST OF THE FURCATION KIT AND ANY WORK ASSOCIATED SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE 12 FIBER PIGTAIL.
 10. SEE DRAWING ME-05 FOR CONDUIT ATTACHED TO STRUCTURE INSTALLATION DETAILS.
 11. SEE DRAWING ME-07C FOR CONDUIT CLAMP INSTALLATION DETAIL.



COMM-53

REVISIONS	
NAME	DATE
REVISION 1	12/17/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO I-57

Roosevelt Road HAR Communications
CONDUIT AND CABLE LAYOUT

SCALE: 1"=50'
DATE: October 29, 2004

DRAWN BY: DHI
CHECKED BY: MJL

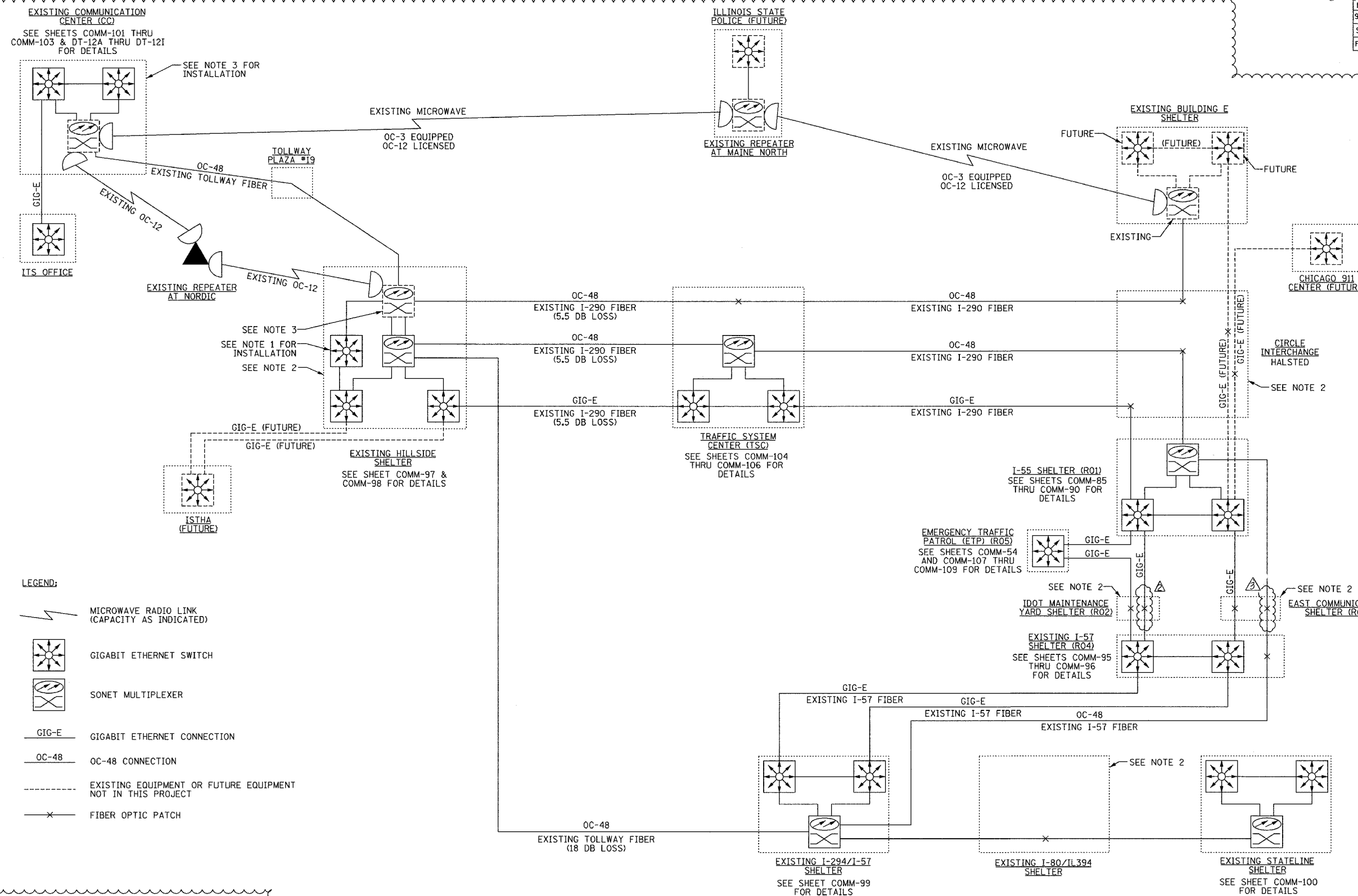
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F.A.I. RTE. 94/90	SECTION 2003-031I	COUNTY COOK	TOTAL SHEETS 976	SHEET NO. 821
STA. 62583		TO STA.		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		



- LEGEND:**
- MICROWAVE RADIO LINK (CAPACITY AS INDICATED)
 - GIGABIT ETHERNET SWITCH
 - SONET MULTIPLEXER
 - GIGABIT ETHERNET CONNECTION
 - OC-48 CONNECTION
 - EXISTING EQUIPMENT OR FUTURE EQUIPMENT NOT IN THIS PROJECT
 - FIBER OPTIC PATCH

- NOTES:**
- ONLY PROVIDE THIRD SWITCH IF REQUIRED FOR SYSTEM INTERFACING OR ROUTING.
 - CONTRACTOR SHALL COORDINATE THE USE OF EXISTING FIBER WITH THE ENGINEER. THE CONTRACTORS SHALL FURNISH AND INSTALL FIBER OPTIC CROSS CONNECTS AT REQUIRING LOCATIONS TO CONCATENATE THE FIBERS.
 - INTEGRATOR SHALL RECONFIGURE AND REPROVISION EXISTING EQUIPMENT TO INTERFACE WITH NEW GIGABIT ETHERNET SWITCHES.

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NAME	DATE
REVISION 1	12/17/04
REVISION	02/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET TO I-57

IDOT DISTRICT 1
 VIDEO DISTRIBUTION
 SCHEMATIC

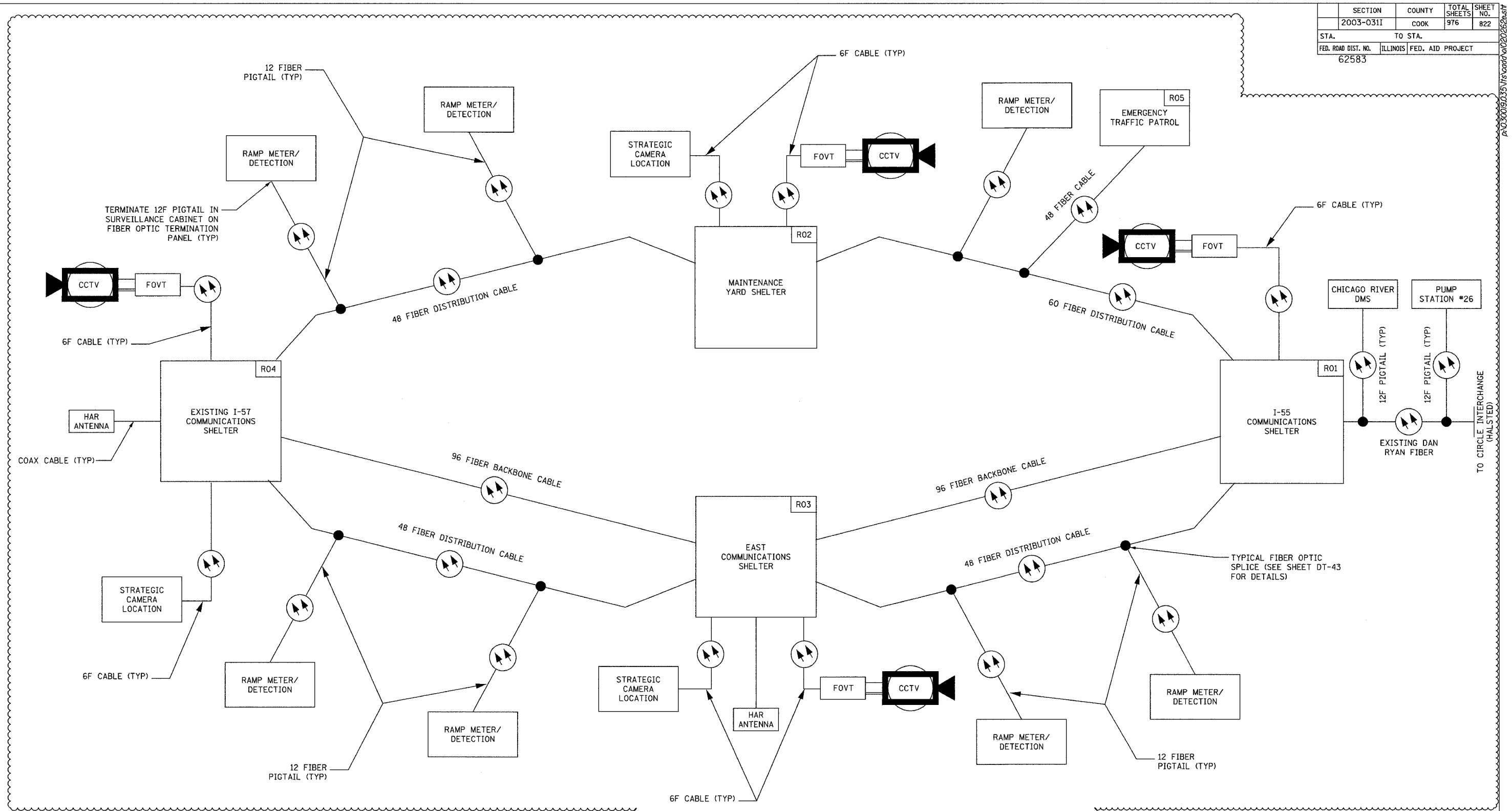
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 DATE: October 29, 2004

DRAWN BY: DHI
 CHECKED BY: JEZ

COMM-55

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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	822
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		
62583			



TYPICAL FIBER OPTIC SPLICE (SEE SHEET DT-43 FOR DETAILS)

COMM-56

NOTES:
 1. THIS SHEET PROVIDED FOR REFERENCE ONLY AND DEPICTS A TYPICAL FIBER OPTIC CABLE NETWORK.

CCTV CLOSED CIRCUIT TELEVISION
 FOVT FIBER OPTIC VIDEO TRANSMITTER
 HAR HIGHWAY ADVISORY RADIO

REVISIONS	
NAME	DATE
REVISION 1	12/17/04

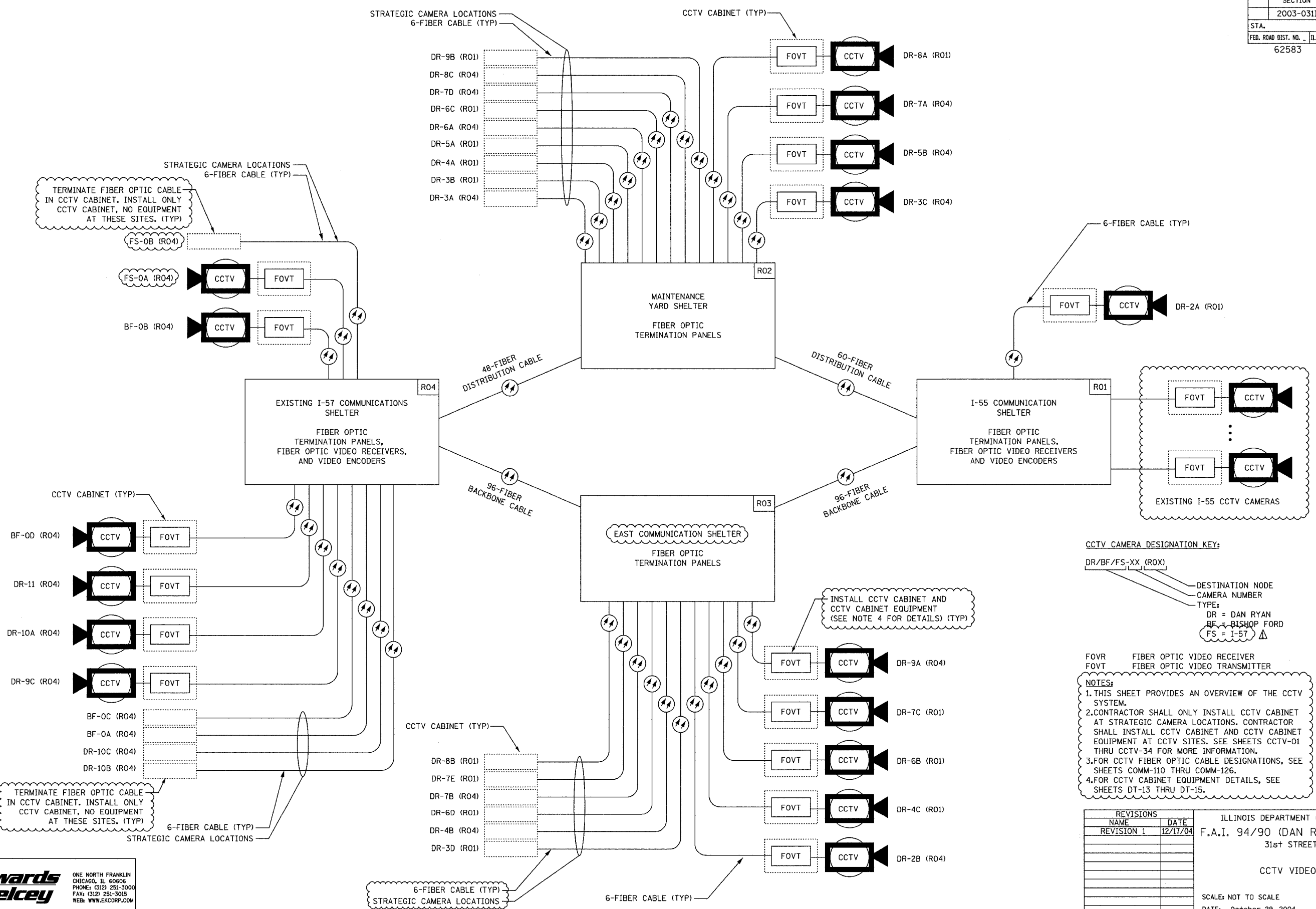
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57

TYPICAL FIBER OPTIC CABLE NETWORK
 SCALE: NOT TO SCALE
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: JEZ

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AS030009035 Vis road/020252e-27 01-09-04 12/15/2004

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-031I	COOK	976	823
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		
62583			



CCTV CAMERA DESIGNATION KEY:
 DR/BF/FS-XX (R0X)
 DESTINATION NODE
 CAMERA NUMBER
 TYPE:
 DR = DAN RYAN
 BF = BISHOP FORD
 FS = I-57

NOTES:
 1. THIS SHEET PROVIDES AN OVERVIEW OF THE CCTV SYSTEM.
 2. CONTRACTOR SHALL ONLY INSTALL CCTV CABINET AT STRATEGIC CAMERA LOCATIONS. CONTRACTOR SHALL INSTALL CCTV CABINET AND CCTV CABINET EQUIPMENT AT CCTV SITES. SEE SHEETS CCTV-01 THRU CCTV-34 FOR MORE INFORMATION.
 3. FOR CCTV FIBER OPTIC CABLE DESIGNATIONS, SEE SHEETS COMM-110 THRU COMM-126.
 4. FOR CCTV CABINET EQUIPMENT DETAILS, SEE SHEETS DT-13 THRU DT-15.

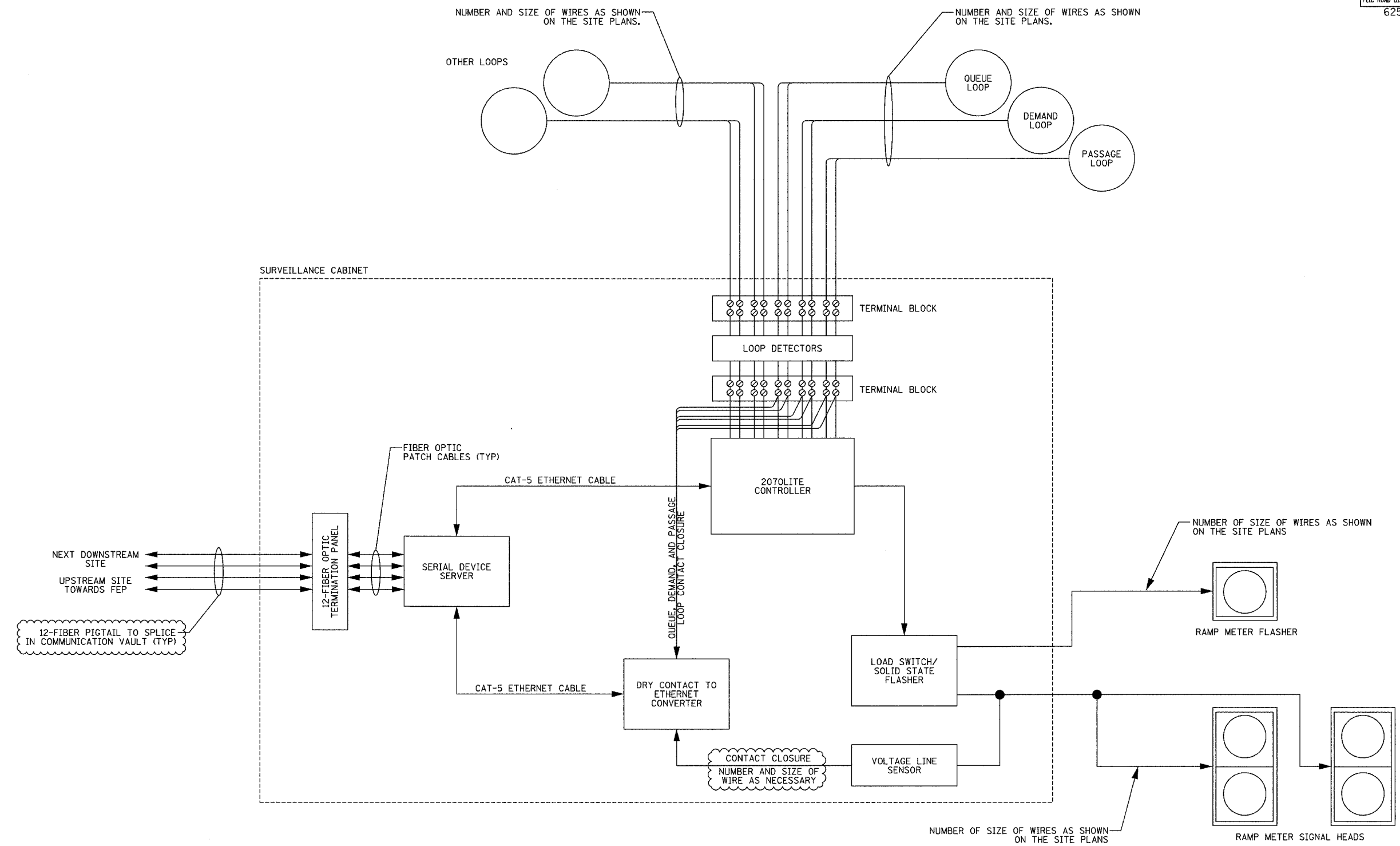
REVISIONS	
NAME	DATE
REVISION 1	12/17/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57
 CCTV VIDEO OVERVIEW
 SCALE: NOT TO SCALE
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: JEZ

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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	824
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			



12-FIBER PIGTAIL TO SPLICE IN COMMUNICATION VAULT (TYP)

CONTACT CLOSURE NUMBER AND SIZE OF WIRE AS NECESSARY

NOTES:
 1. SEE SHEET DT-36 FOR CABINET DETAILS INCLUDING POWER DISTRIBUTION WIRING DIAGRAM.
 2. CONTRACTOR SHALL TAG ALL SURVEILLANCE CABINET WIRES. CONTRACTOR SHALL PROVIDE A WIRE TAGGING NOMENCLATURE TO BE APPROVED BY THE ENGINEER.

REVISIONS	
NAME	DATE
REVISION 1	12/17/04

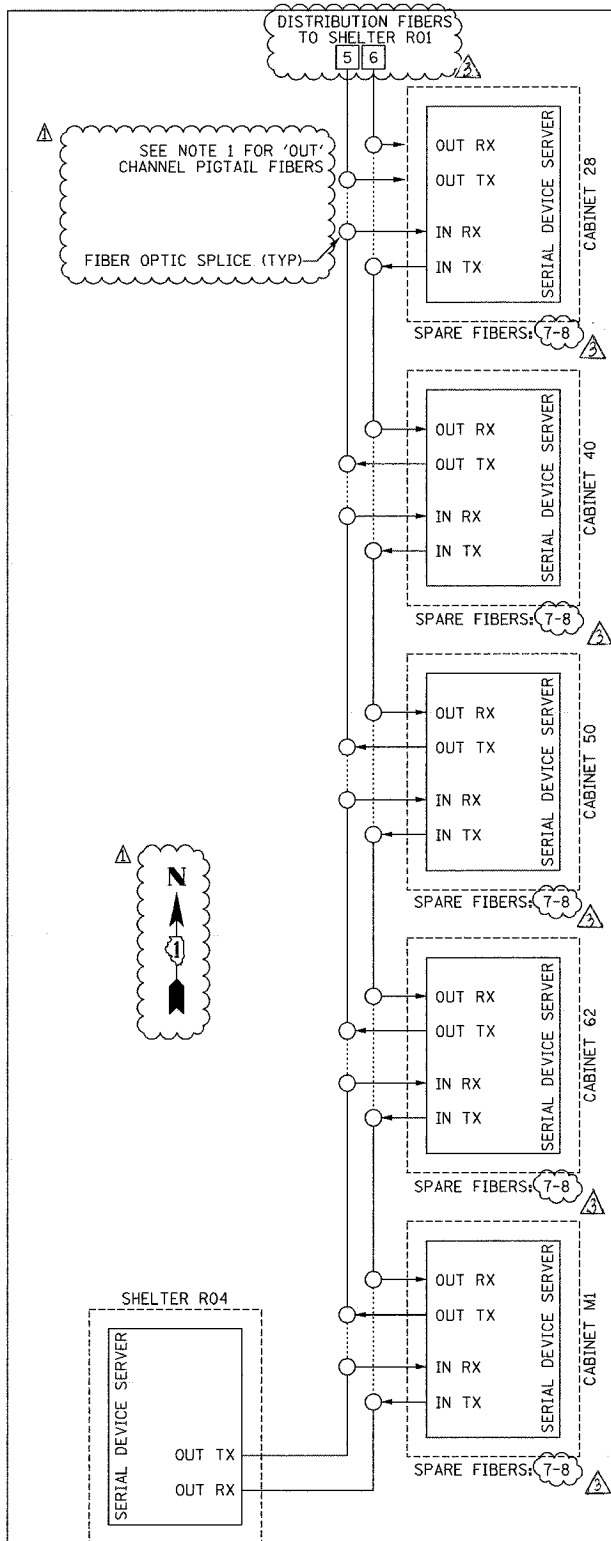
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57
 TYPICAL SURVEILLANCE CABINET WIRING DIAGRAM
 SCALE: NOT TO SCALE
 DATE: October 29, 2004
 DRAWN BY: DHI
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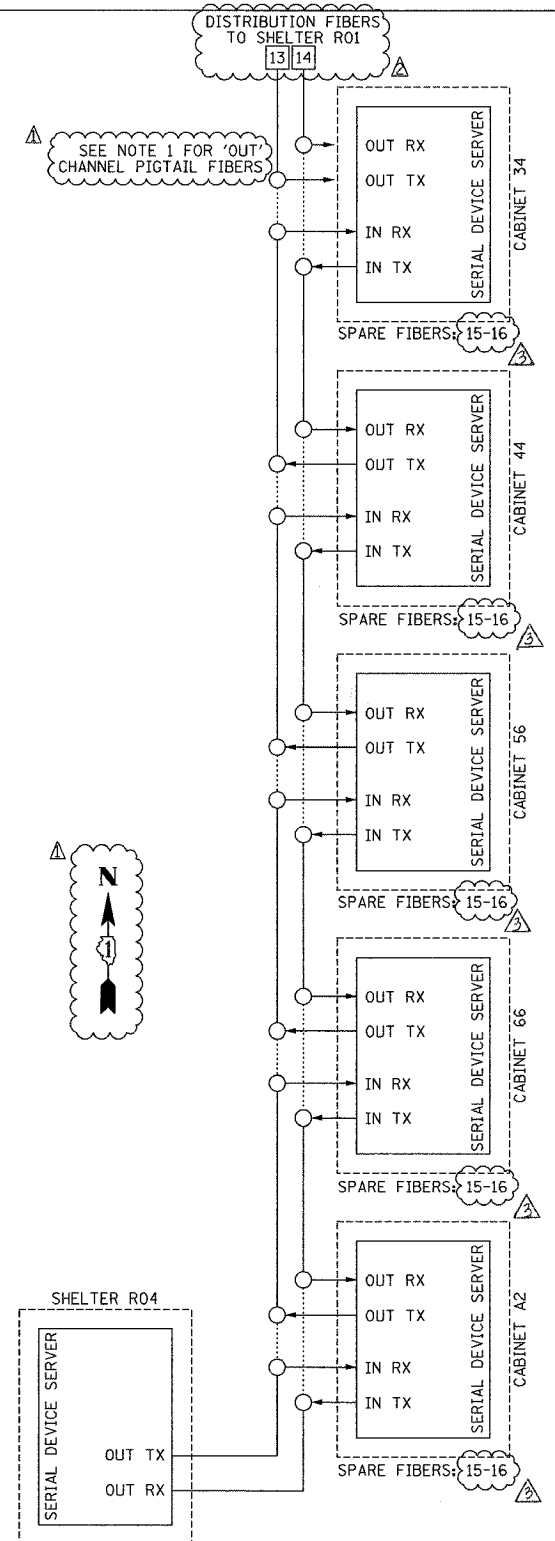
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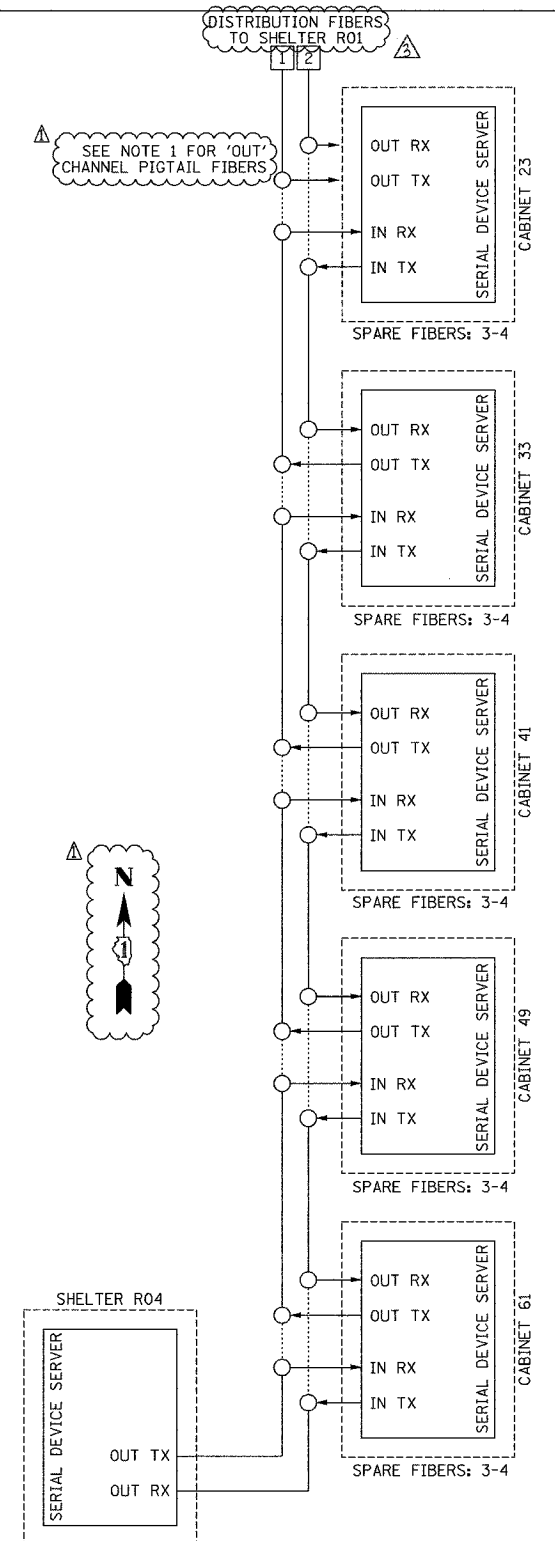
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	825
STA. TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			



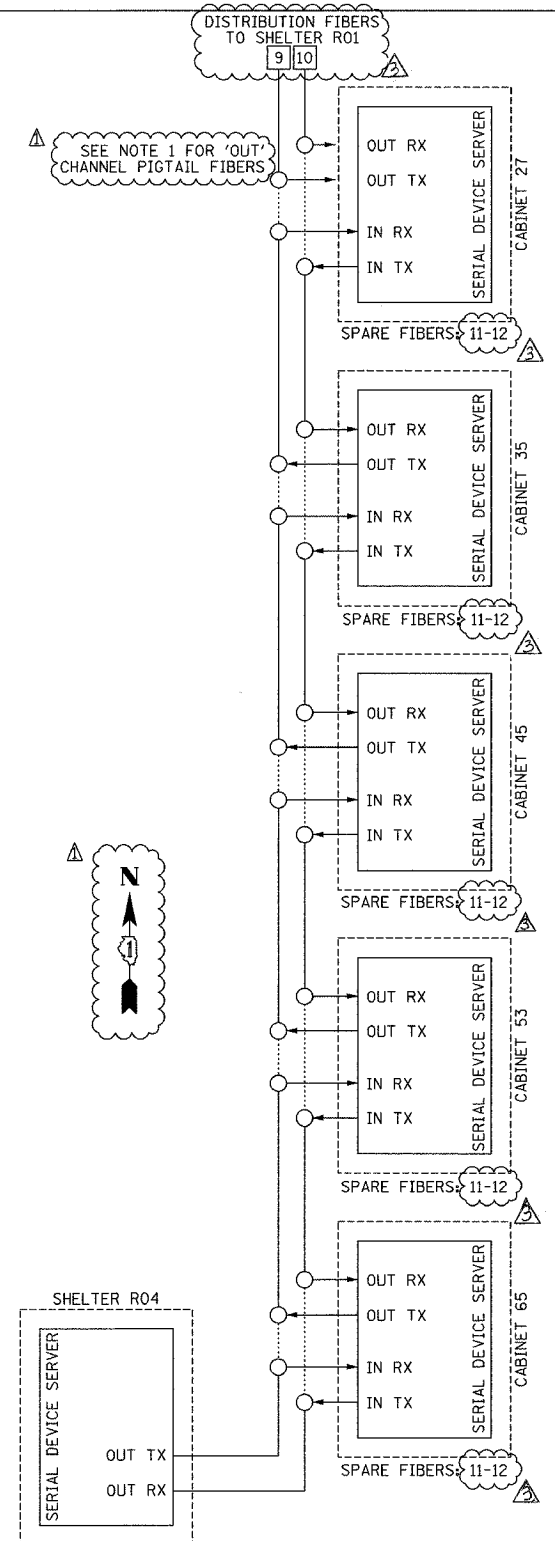
CIRCUIT DR-R04-SURV-04
FIVE SERIAL DEVICE SERVERS



CIRCUIT DR-R04-SURV-08
FIVE SERIAL DEVICE SERVERS



CIRCUIT DR-R04-SURV-01
FIVE SERIAL DEVICE SERVERS



CIRCUIT DR-R04-SURV-05
FIVE SERIAL DEVICE SERVERS

- NOTES:
1. FIBERS IN PIGTAIL ARE SPLICED TO MAINLINE FIBERS AND TERMINATED IN THE CABINET BUT ARE NOT CONNECTED TO EQUIPMENT.
 2. THIS SHEET PROVIDES AN OVERVIEW OF THE SURVEILLANCE SYSTEM. FOR LOCATIONS OF EQUIPMENT INSTALLATION, SEE SHEETS DET-01 THRU DET-47.
 3. CONNECTIONS BETWEEN EQUIPMENT IS BY FIBER OPTIC CABLE INSTALLED UNDER THIS CONTRACT. SEE SHEETS COMM-01 THRU COMM-51 FOR FIBER INSTALLATION PLANS.
 4. FOR FIBER OPTIC SPLICE TABLES, SEE SHEETS COMM-62 THRU COMM-69.

REVISIONS	
NAME	DATE
REVISION 1	12/17/04
REVISION	02/11/05

DESIGNATION
R01 SHELTER
R02 I-55 SHELTER
R03 IDOT MAINTENANCE YARD SHELTER
R04 EAST SHELTER
EXISTING I-57 SHELTER

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57

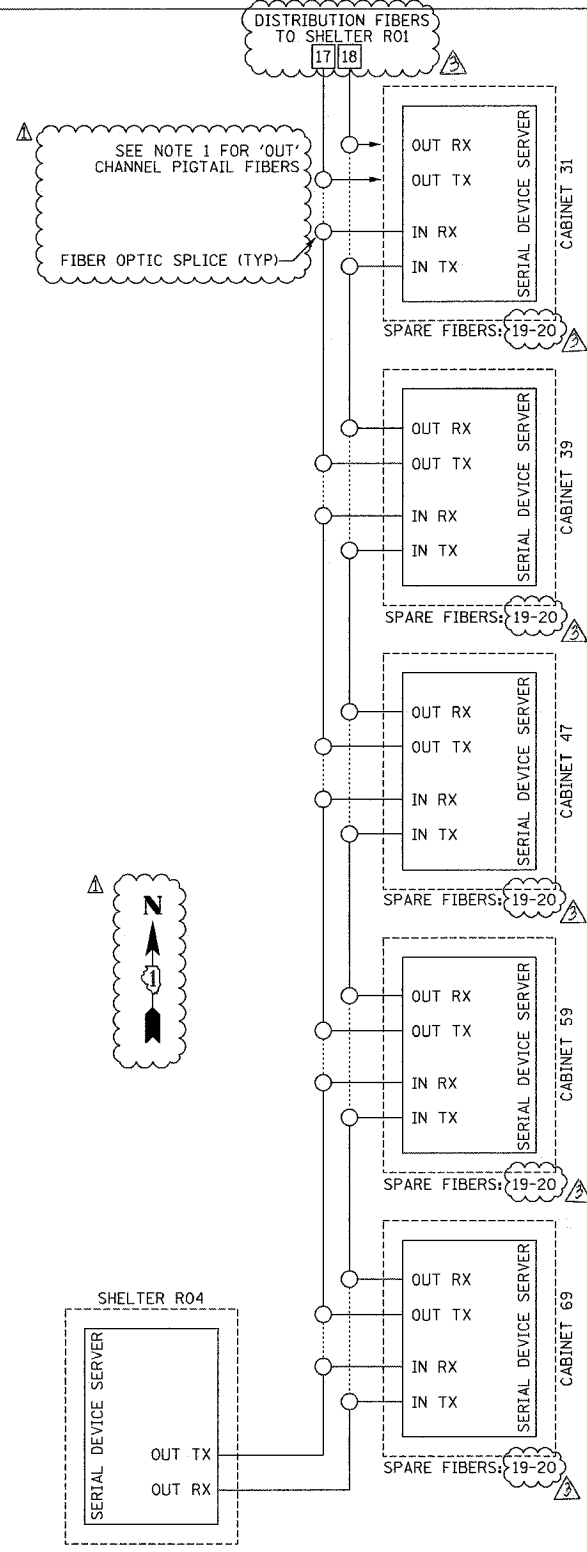
SURVEILLANCE SYSTEM DIAGRAMS
(SHEET 1 OF 3)

SCALE: NOT TO SCALE
DATE: October 29, 2004
DRAWN BY: DHI
CHECKED BY: JEZ

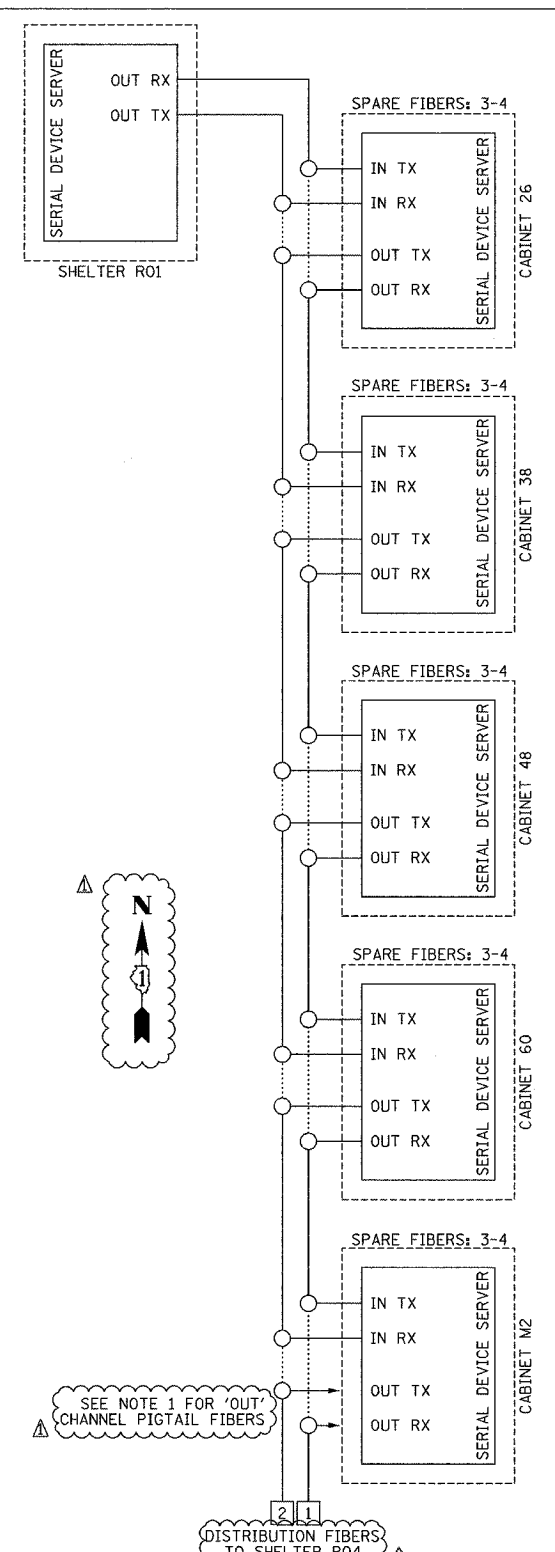
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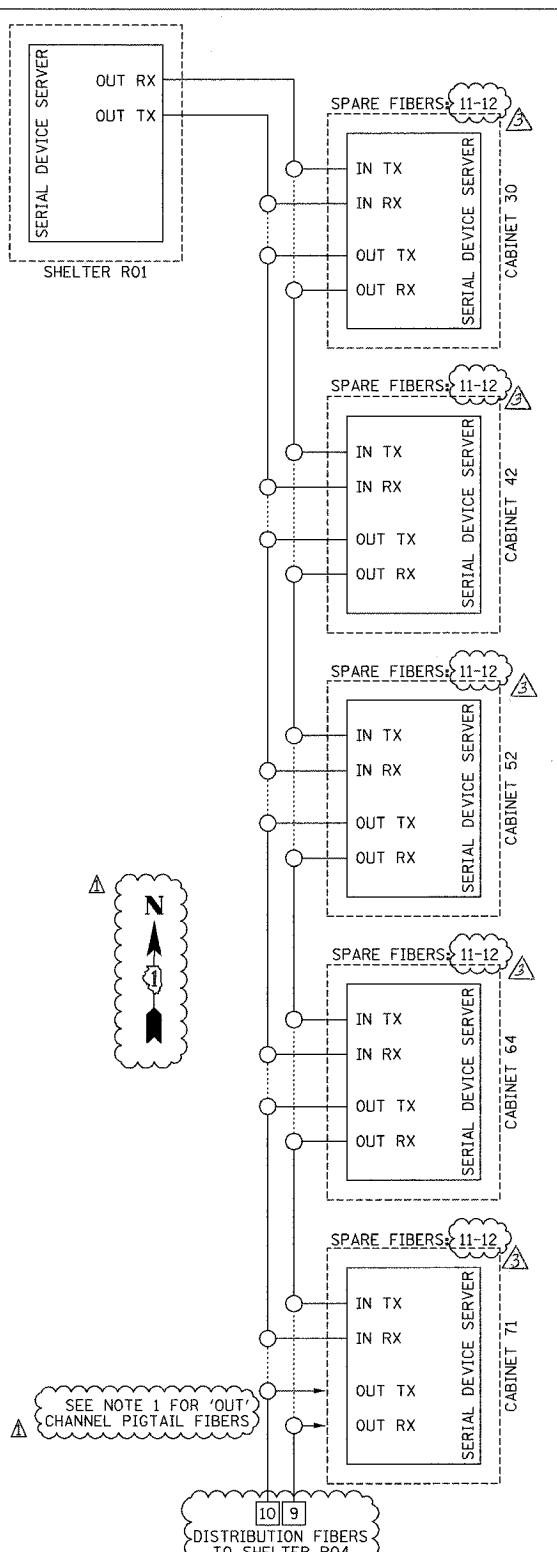
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	826
STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	
62583			



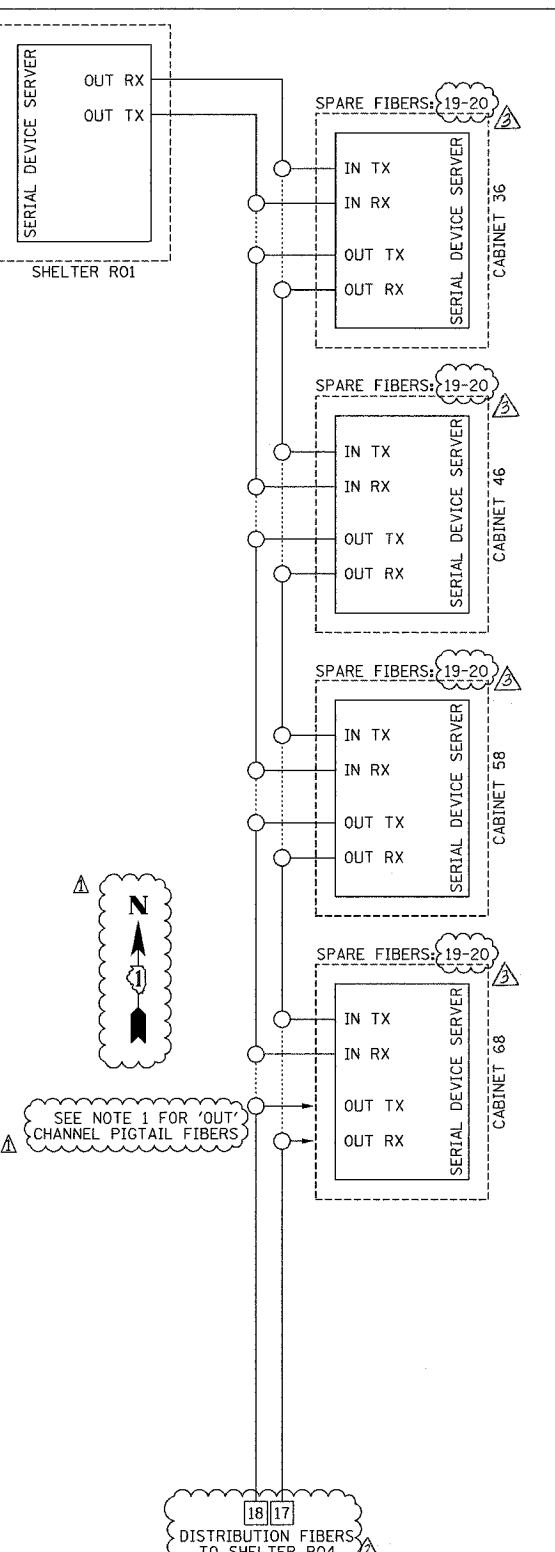
CIRCUIT DR-R04-SURV-09
FIVE SERIAL DEVICE SERVERS



CIRCUIT DR-R01-SURV-02
FIVE SERIAL DEVICE SERVERS



CIRCUIT DR-R01-SURV-06
FIVE SERIAL DEVICE SERVERS



CIRCUIT DR-R01-SURV-10
FOUR SERIAL DEVICE SERVERS

- NOTES:
1. FIBERS IN PIGTAIL ARE SPLICED TO MAINLINE FIBERS AND TERMINATED IN THE CABINET BUT ARE NOT CONNECTED TO EQUIPMENT.
 2. THIS SHEET PROVIDES AN OVERVIEW OF THE SURVEILLANCE SYSTEM. FOR LOCATIONS OF EQUIPMENT INSTALLATION, SEE SHEETS DET-01 THRU DET-47.
 3. CONNECTIONS BETWEEN EQUIPMENT IS BY FIBER OPTIC CABLE INSTALLED UNDER THIS CONTRACT. SEE SHEETS COMM-01 THRU COMM-51 FOR FIBER INSTALLATION PLANS.
 4. FOR FIBER OPTIC SPLICE TABLES, SEE SHEETS COMM-62 THRU COMM-69.

DESIGNATION	SHELTER
R01	I-55 SHELTER
R02	IDOT MAINTENANCE YARD SHELTER
R03	EAST SHELTER
R04	EXISTING I-57 SHELTER

REVISIONS	
NAME	DATE
REVISION 1	12/17/04
REVISION	02/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO I-57

SURVEILLANCE SYSTEM DIAGRAMS
(SHEET 2 OF 3)

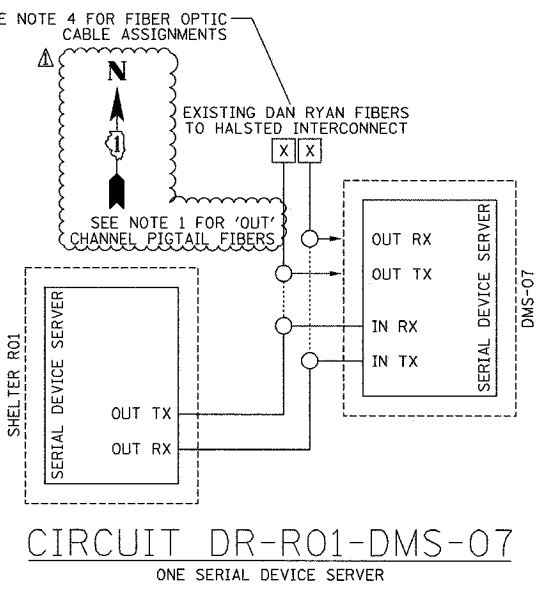
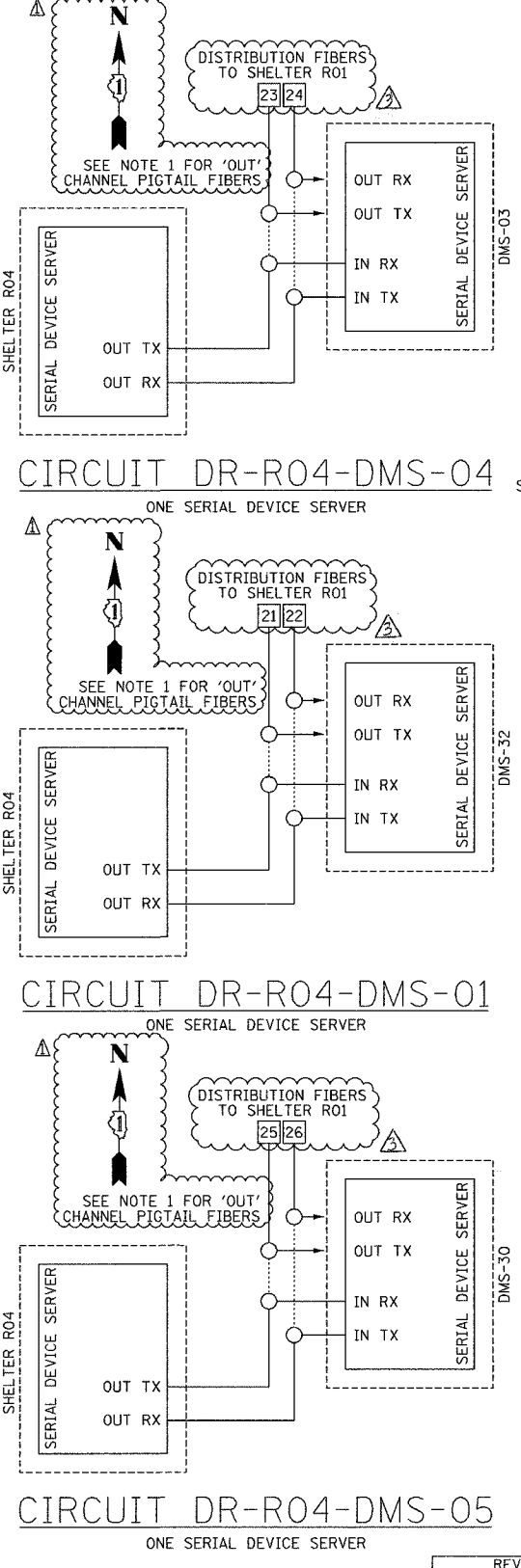
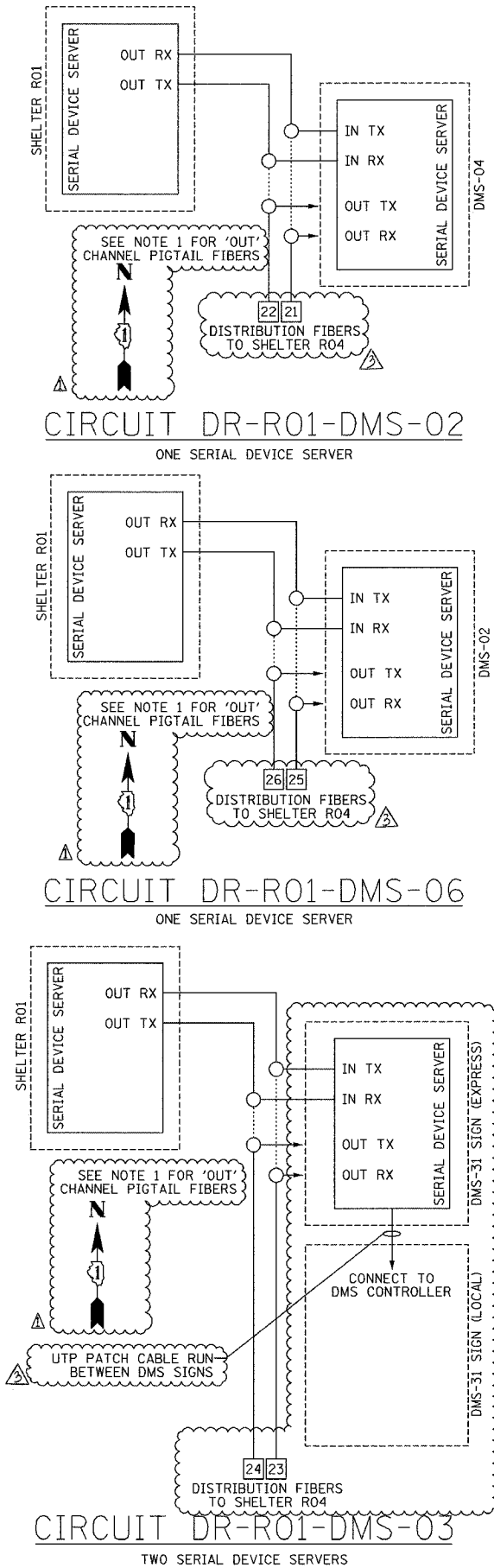
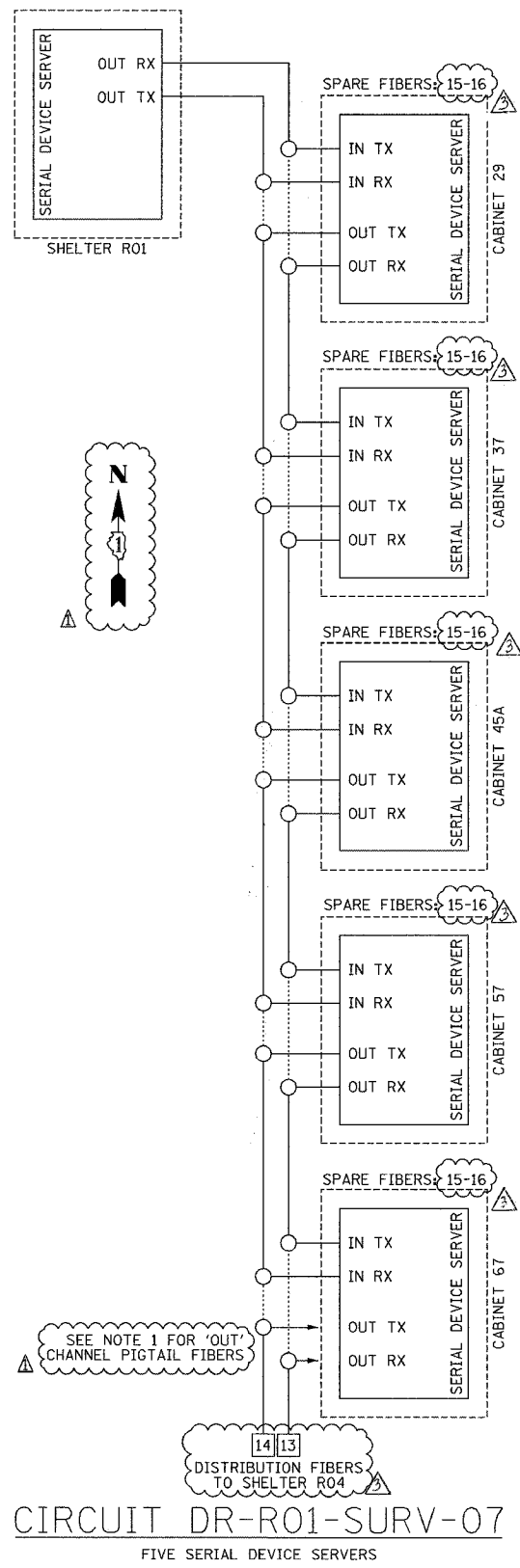
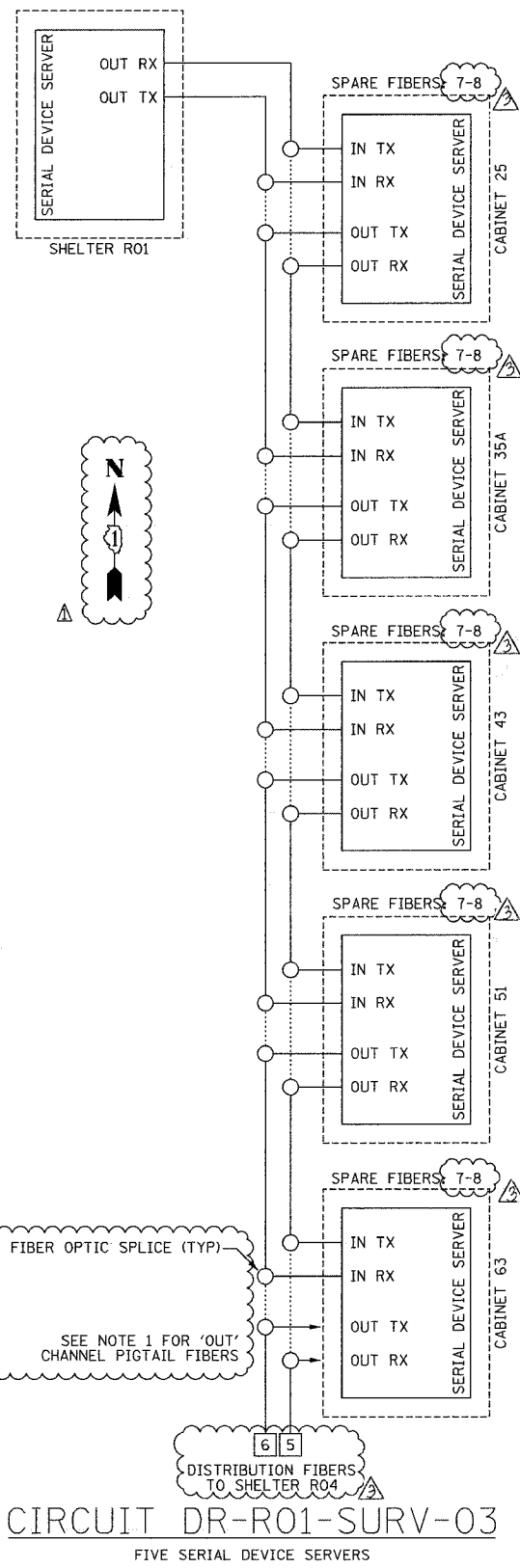
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DATE: October 29, 2004

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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	827
STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	
62583			



- NOTES:**
1. FIBERS IN PIGTAIL ARE SPLICED TO MAINLINE FIBERS AND TERMINATED IN THE CABINET BUT ARE NOT CONNECTED TO EQUIPMENT.
 2. THIS SHEET PROVIDES AN OVERVIEW OF THE SURVEILLANCE SYSTEM. FOR LOCATIONS OF EQUIPMENT INSTALLATION, SEE SHEETS DET-01 THRU DET-47.
 3. CONNECTIONS BETWEEN EQUIPMENT IS BY FIBER OPTIC CABLE INSTALLED UNDER THIS CONTRACT. SEE SHEETS COMM-01 THRU COMM-51 FOR FIBER INSTALLATION PLANS.
 4. CONTRACTOR SHALL SPLICED PIGTAIL FIBERS TO EXISTING DAN RYAN 96 FIBER CABLE IN BARRIER WALL. CONTRACTOR SHALL COORDINATE WITH ENGINEER FOR FIBER OPTIC CABLE SPLICING ASSIGNMENTS. SEE SHEET COMM-52 FOR SITE PLAN DETAILS.
 5. FOR FIBER OPTIC SPLICING TABLES, SEE SHEETS COMM-62 THRU COMM-69.
- | DESIGNATION | SHELTER |
|-------------|-------------------------------|
| R01 | I-55 SHELTER |
| R02 | IDOT MAINTENANCE YARD SHELTER |
| R03 | EAST SHELTER |
| R04 | EXISTING I-57 SHELTER |

REVISIONS	
NAME	DATE
REVISION 1	12/17/04
REVISION	02/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO I-57

SURVEILLANCE SYSTEM DIAGRAMS
(SHEET 3 OF 3)

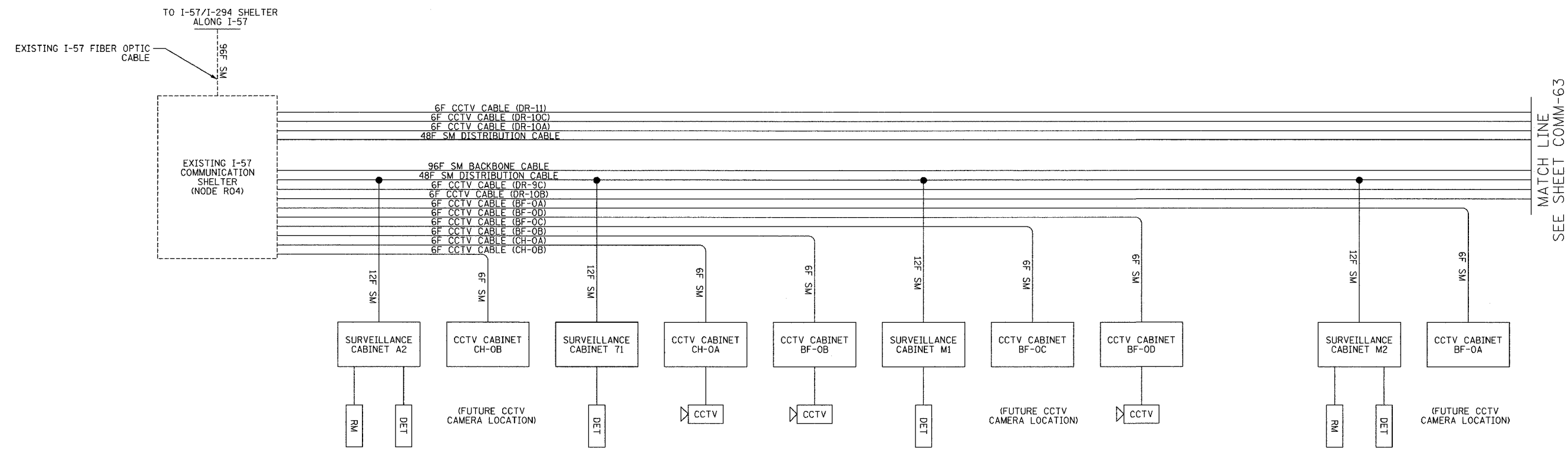
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	828
STA.	TO STA.			
FED. ROAD DIST. NO. - ILLINOIS	FED. AID PROJECT			
62583				



LEGEND

---- EXISTING EQUIPMENT
 --- PROPOSED EQUIPMENT

DMS DYNAMIC MESSAGE SIGN SITE
 DET VEHICLE DETECTOR SITE
 RM RAMP METER SITE

LEGEND:

1. THIS DRAWING DEPICTS THE FIBER OPTIC SPLICING DETAILS. FOR FIBER OPTIC CABLE INSTALLATION DETAILS, SEE SHEETS COMM-01 THRU COMM-52. FOR SURVEILLANCE EQUIPMENT INSTALLATION DETAILS, SEE SHEETS DET-01 THRU DET-47. FOR CCTV EQUIPMENT INSTALLATION DETAILS, SEE SHEETS CCTV-01 THRU CCTV-34.

PIGTAIL FIBER NO.	FUNCTION	APPLICATION DESCRIPTION	SURVEILLANCE CABINET A2	SURVEILLANCE CABINET T1	SURVEILLANCE CABINET M1	SURVEILLANCE CABINET M2
1	IN TX	DATA CIRCUIT	R03-R04 14S	R03-R04 9N	R03-R04 6S	R03-R04 1N
2	IN RX		R03-R04 13S	R03-R04 10N	R03-R04 5S	R03-R04 2N
3	OUT RX		R03-R04 14N	R03-R04 9S	R03-R04 6N	R03-R04 1S
4	OUT TX		R03-R04 13N	R03-R04 10S	R03-R04 5N	R03-R04 2S
5		FUTURE	R03-R04 16S	R03-R04 11N	R03-R04 8S	R03-R04 3N
6			R03-R04 15S	R03-R04 12N	R03-R04 7S	R03-R04 4N
7			R03-R04 16N	R03-R04 11S	R03-R04 8N	R03-R04 3S
8			R03-R04 15N	R03-R04 12S	R03-R04 7N	R03-R04 4S
9	IN TX	DMS				
10	IN RX					
11	OUT RX					
12	OUT TX					

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) 31st STREET to I-57
NAME	DATE	
REVISION	02/11/05	FIBER OPTIC SCHEMATIC (SHEET 1 OF 8)

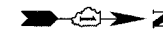
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DATE: October 29, 2004

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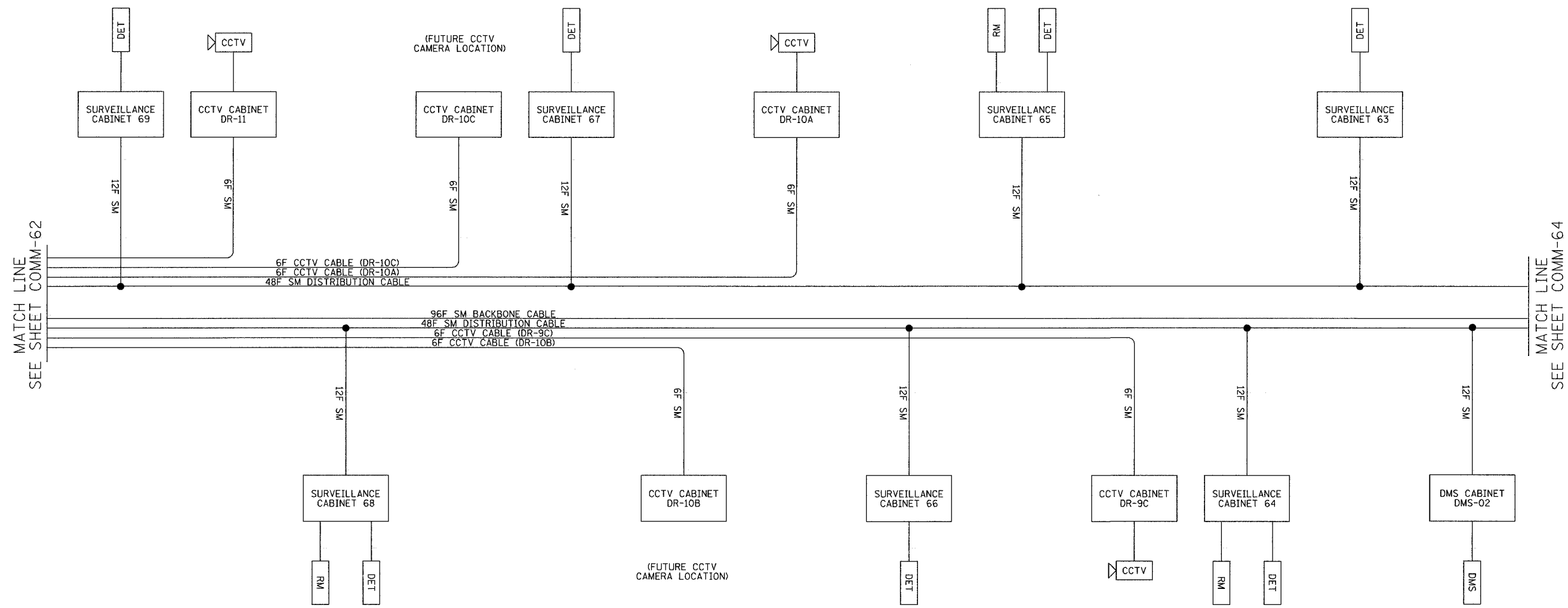
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COMM-62

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LEGEND
 --- EXISTING EQUIPMENT
 - - - PROPOSED EQUIPMENT

DMS DYNAMIC MESSAGE SIGN SITE
 DET VEHICLE DETECTOR SITE
 RM RAMP METER SITE

LEGEND:
 1. THIS DRAWING DEPICTS THE FIBER OPTIC SPLICING DETAILS. FOR FIBER OPTIC CABLE INSTALLATION DETAILS, SEE SHEETS COMM-01 THRU COMM-52. FOR SURVEILLANCE EQUIPMENT INSTALLATION DETAILS, SEE SHEETS DET-01 THRU DET-47. FOR CCTV EQUIPMENT INSTALLATION DETAILS, SEE SHEETS CCTV-01 THRU CCTV-34.

PIGTAIL FIBER NO.	FUNCTION	APPLICATION DESCRIPTION	SURVEILLANCE CABINET 69	SURVEILLANCE CABINET 68	SURVEILLANCE CABINET 67	SURVEILLANCE CABINET 66	SURVEILLANCE CABINET 65	SURVEILLANCE CABINET 64	SURVEILLANCE CABINET 63	CABINET DMS-UPS-02
1	IN TX	DATA CIRCUIT	R02-R04 18S	R03-R04 17N	R02-R04 13N	R03-R04 14S	R02-R04 10S	R03-R04 9N	R02-R04 5N	
2	IN RX		R02-R04 17S	R03-R04 18N	R02-R04 14N	R03-R04 13S	R02-R04 9S	R03-R04 10N	R02-R04 6N	
3	OUT RX		R02-R04 18N	R03-R04 17S	R02-R04 13S	R03-R04 14N	R02-R04 10N	R03-R04 9S	R02-R04 5S	
4	OUT TX		R02-R04 17N	R03-R04 18S	R02-R04 14S	R03-R04 13N	R02-R04 9N	R03-R04 10S	R02-R04 6S	
5		FUTURE	R02-R04 20S	R03-R04 19N	R02-R04 15N	R03-R04 16S	R02-R04 12S	R03-R04 11N	R02-R04 7N	
6			R02-R04 19S	R03-R04 20N	R02-R04 16N	R03-R04 15S	R02-R04 11S	R03-R04 12N	R02-R04 8N	
7			R02-R04 20N	R03-R04 19S	R02-R04 15S	R03-R04 16N	R02-R04 12N	R03-R04 11S	R02-R04 7S	
8			R02-R04 19N	R03-R04 20S	R02-R04 16S	R03-R04 15N	R02-R04 11N	R03-R04 12S	R02-R04 8S	
9	IN TX	DMS							R03-R04 25N	
10	IN RX								R03-R04 26N	
11	OUT RX								R03-R04 25S	
12	OUT TX								R03-R04 26S	

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REVISIONS	
NAME	DATE
REVISION 2	02/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57

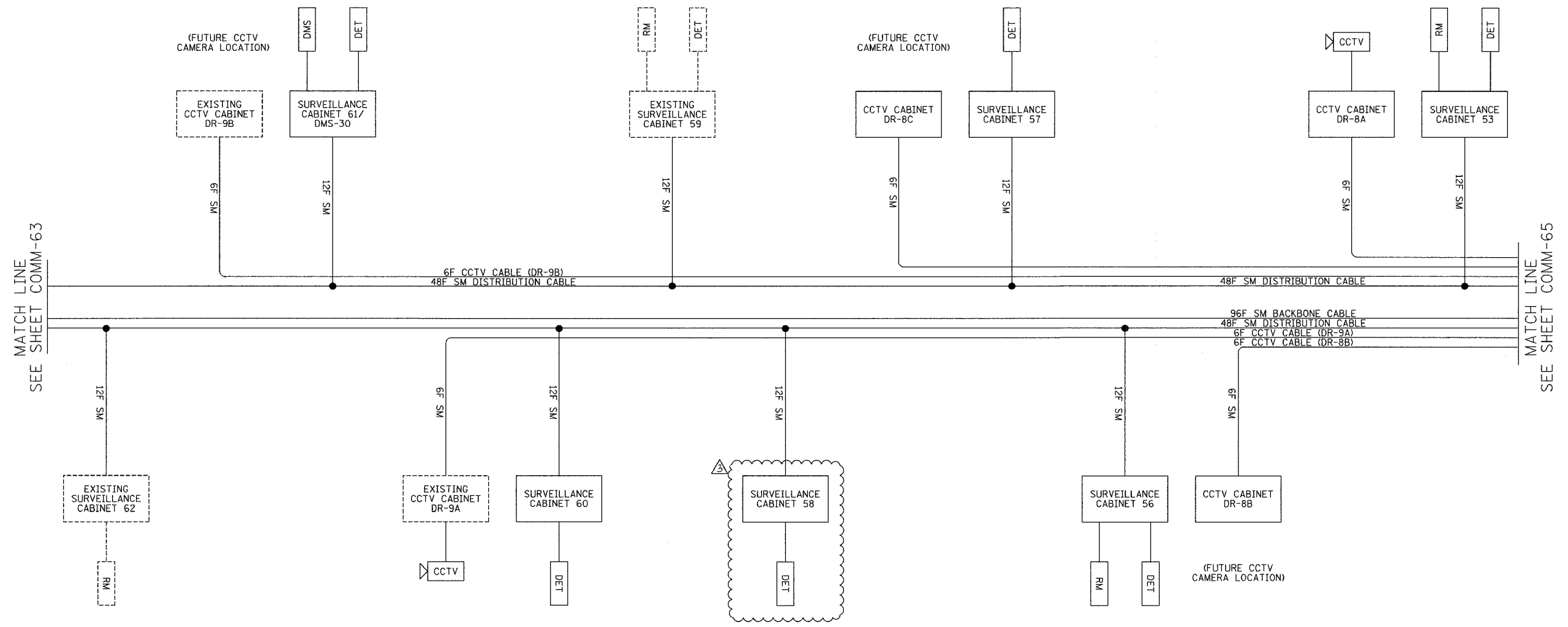
FIBER OPTIC SCHEMATIC
 (SHEET 2 OF 8)

SCALE: NTS
 DATE: October 29, 2004

DRAWN BY: DHI
 CHECKED BY: JEZ

COMM-63

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-03II	COOK	976	830
STA. TO STA.		FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT	
		62583	



LEGEND
 ---- EXISTING EQUIPMENT
 ——— PROPOSED EQUIPMENT
 DMS DYNAMIC MESSAGE SIGN SITE
 DET VEHICLE DETECTOR SITE
 RM RAMP METER SITE

LEGEND:
 1. THIS DRAWING DEPICTS THE FIBER OPTIC SPLICING DETAILS. FOR FIBER OPTIC CABLE INSTALLATION DETAILS, SEE SHEETS COMM-01 THRU COMM-52. FOR SURVEILLANCE EQUIPMENT INSTALLATION DETAILS, SEE SHEETS DET-01 THRU DET-47. FOR CCTV EQUIPMENT INSTALLATION DETAILS, SEE SHEETS CCTV-01 THRU CCTV-34.

PIGTAIL FIBER NO.	FUNCTION	APPLICATION DESCRIPTION	SURVEILLANCE CABINET 62	SURVEILLANCE CABINET 61/DMS-UPS-30	SURVEILLANCE CABINET 60	SURVEILLANCE CABINET 59	SURVEILLANCE CABINET 58	SURVEILLANCE CABINET 57	SURVEILLANCE CABINET 56	SURVEILLANCE CABINET 53
1	IN TX	DATA CIRCUIT	R03-R04 6S	R02-R04 2S	R03-R04 1N	R02-R04 18S	R03-R04 17N	R02-R04 13N	R03-R04 14S	R02-R04 10S
2	IN RX		R03-R04 5S	R02-R04 1S	R03-R04 2N	R02-R04 17S	R03-R04 18N	R02-R04 14N	R03-R04 13S	R02-R04 9S
3	OUT RX		R03-R04 6N	R02-R04 2N	R03-R04 1S	R02-R04 18N	R03-R04 17S	R02-R04 13S	R03-R04 14N	R02-R04 10N
4	OUT TX		R03-R04 5N	R02-R04 1N	R03-R04 2S	R02-R04 17N	R03-R04 18S	R02-R04 14S	R03-R04 13N	R02-R04 9N
5		FUTURE	R03-R04 8S	R02-R04 4S	R03-R04 3N	R02-R04 20S	R03-R04 19N	R02-R04 15N	R03-R04 16S	R02-R04 12S
6			R03-R04 7S	R02-R04 3S	R03-R04 4N	R02-R04 19S	R03-R04 20N	R02-R04 16N	R03-R04 15S	R02-R04 11S
7			R03-R04 8N	R02-R04 4N	R03-R04 3S	R02-R04 20N	R03-R04 19S	R02-R04 15S	R03-R04 16N	R02-R04 12N
8			R03-R04 7N	R02-R04 3N	R03-R04 4S	R02-R04 19N	R03-R04 20S	R02-R04 16S	R03-R04 15N	R02-R04 11N
9	IN TX	DMS		R02-R04 26S						
10	IN RX			R02-R04 25S						
11	OUT RX			R02-R04 26N						
12	OUT TX			R02-R04 25N						

Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
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 WEB: WWW.EKCORP.COM

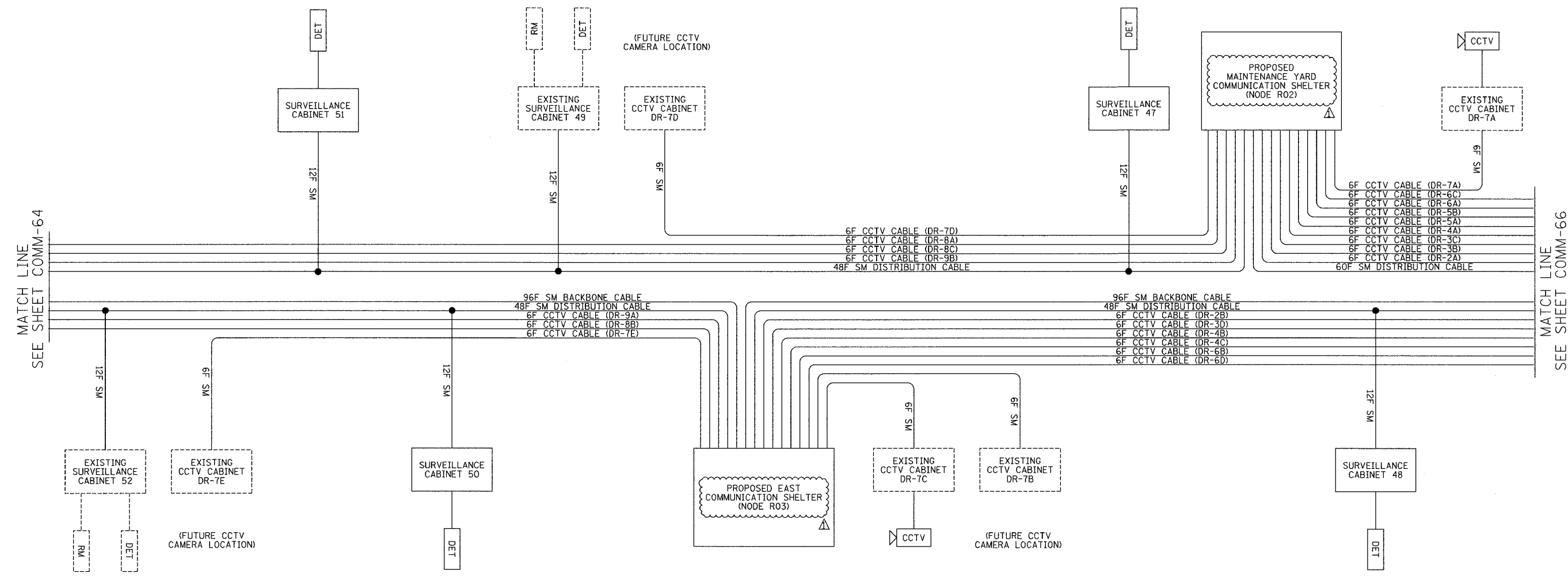
REVISIONS	
NAME	DATE
REVISION	02/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57
 FIBER OPTIC SCHEMATIC
 (SHEET 3 OF 8)
 SCALE: NTS
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: JEZ

COMM-64

02/08/2005 04:24:47 PM

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	831
STA. TO STA.		ILLINOIS FED. AID PROJECT	
62583			



MATCH LINE SEE SHEET COMM-64

MATCH LINE SEE SHEET COMM-66

LEGEND
 --- EXISTING EQUIPMENT
 --- PROPOSED EQUIPMENT

DMS DYNAMIC MESSAGE SIGN SITE
 DET VEHICLE DETECTOR SITE
 RM RAMP METER SITE

LEGEND:
 1. THIS DRAWING DEPICTS THE FIBER OPTIC SPLICING DETAILS. FOR FIBER OPTIC CABLE INSTALLATION DETAILS, SEE SHEETS COMM-01 THRU COMM-52. FOR SURVEILLANCE EQUIPMENT INSTALLATION DETAILS, SEE SHEETS DET-01 THRU DET-47. FOR CCTV EQUIPMENT INSTALLATION DETAILS, SEE SHEETS CCTV-01 THRU CCTV-34.

PIGTAIL FIBER NO.	FUNCTION	APPLICATION DESCRIPTION	SURVEILLANCE CABINET 52	SURVEILLANCE CABINET 51	SURVEILLANCE CABINET 50	SURVEILLANCE CABINET 49	SURVEILLANCE CABINET 47	SURVEILLANCE CABINET 48
1	IN TX	DATA CIRCUIT	R03-R04 9N	R02-R04 5N	R03-R04 6N	R02-R04 2S	R02-R04 18S	R01-R03 1N
2	IN RX		R03-R04 10N	R02-R04 6N	R03-R04 5N	R02-R04 1S	R02-R04 17S	R01-R03 2N
3	OUT RX		R03-R04 9S	R02-R04 5S	R03-R04 6S	R02-R04 2N	R02-R04 18N	R01-R03 1S
4	OUT TX		R03-R04 10S	R02-R04 6S	R03-R04 5S	R02-R04 1N	R02-R04 17N	R01-R03 2S
5		FUTURE	R03-R04 11N	R02-R04 7N	R03-R04 8N	R02-R04 4S	R02-R04 20S	R01-R03 3N
6			R03-R04 12N	R02-R04 8N	R03-R04 7N	R02-R04 3S	R02-R04 19S	R01-R03 4N
7			R03-R04 11S	R02-R04 7S	R03-R04 8S	R02-R04 4N	R02-R04 20N	R01-R03 3S
8			R03-R04 12S	R02-R04 8S	R03-R04 7S	R02-R04 3N	R02-R04 19N	R01-R03 4S
9	IN TX	DMS						
10	IN RX							
11	OUT RX							
12	OUT TX							

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REVISIONS	
NAME	DATE
REVISION 1	12/17/04
REVISION	02/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET TO I-57

FIBER OPTIC SCHEMATIC
 (SHEET 4 OF 8)

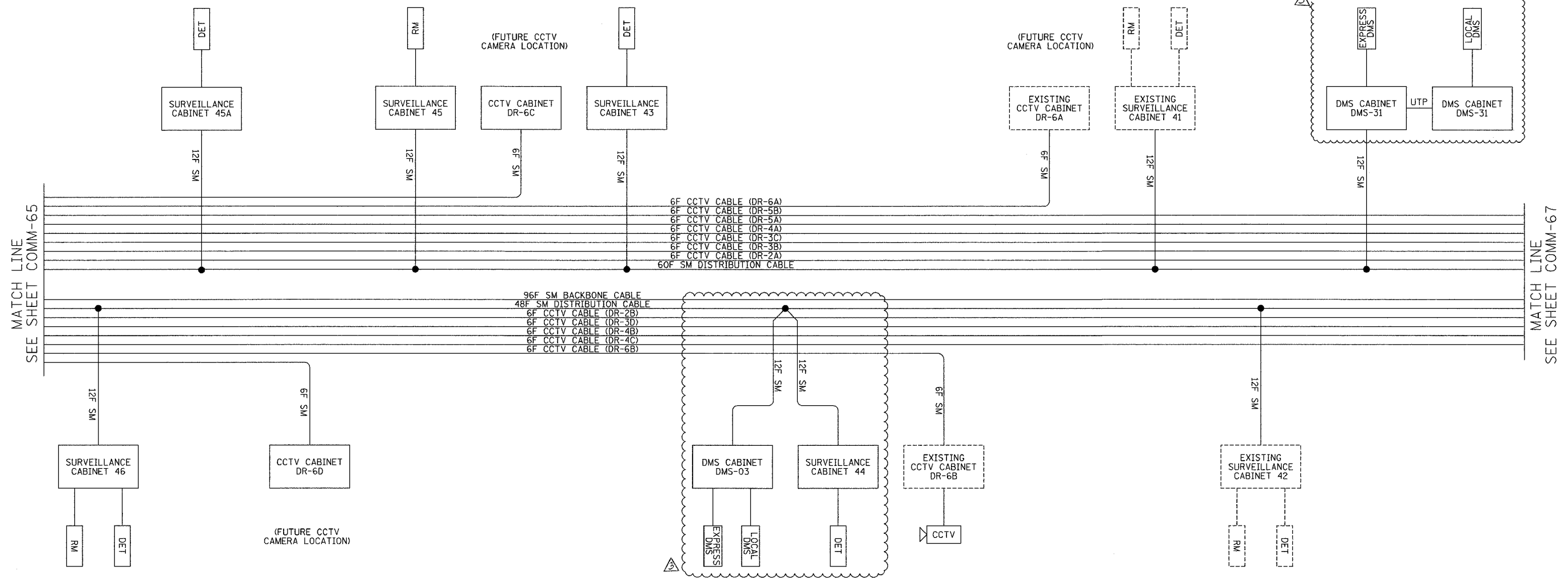
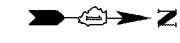
SCALE: NTS
 DATE: October 29, 2004

DRAWN BY: DH1
 CHECKED BY: JEZ

COMM-65

02/08/2005 04:24:47 PM

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-03II	COOK	976	832
STA. TO STA.			
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT	
		62583	



LEGEND
 --- EXISTING EQUIPMENT
 --- PROPOSED EQUIPMENT

DMS DYNAMIC MESSAGE SIGN SITE
 DET VEHICLE DETECTOR SITE
 RM RAMP METER SITE

LEGEND:
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PIGTAIL FIBER NO.	FUNCTION	APPLICATION DESCRIPTION	CABINET / SITE														
			SURVEILLANCE CABINET 46	SURVEILLANCE CABINET 45A	SURVEILLANCE CABINET 45	SURVEILLANCE CABINET 43	DMS-03 CABINET	SURVEILLANCE CABINET 44	SURVEILLANCE CABINET 41	SURVEILLANCE CABINET 42	DMS-31 CABINET						
1	IN TX	DATA CIRCUIT	R01-R03 17N	R01-R02 13N	R01-R02 10S	R01-R02 5N		R01-R03 13S	R01-R02 2S	R01-R03 9N							
2	IN RX		R01-R03 18N	R01-R02 14N	R01-R02 9S	R01-R02 6N		R01-R03 14S	R01-R02 1S	R01-R03 10N							
3	OUT RX		R01-R03 17S	R01-R02 13S	R01-R02 10N	R01-R02 5S		R01-R03 13N	R01-R02 2N	R01-R03 9S							
4	OUT TX		R01-R03 18S	R01-R02 14S	R01-R02 9N	R01-R02 6S		R01-R03 14N	R01-R02 1N	R01-R03 10S							
5		FUTURE	R01-R03 19N	R01-R02 15N	R01-R02 12S	R01-R02 7N		R01-R03 15S	R01-R02 4S	R01-R03 11N							
6			R01-R03 20N	R01-R02 16N	R01-R02 11S	R01-R02 8N		R01-R03 16S	R01-R02 3S	R01-R03 12N							
7			R01-R03 19S	R01-R02 15S	R01-R02 12N	R01-R02 7S		R01-R03 15N	R01-R02 4N	R01-R03 11S							
8			R01-R03 20S	R01-R02 16S	R01-R02 11N	R01-R02 8S		R01-R03 16N	R01-R02 3N	R01-R03 12S							
9	IN TX	DMS					R01-R03 24S				R01-R03 23N						
10	IN RX						R01-R03 23S				R01-R03 24N						
11	OUT RX						R01-R03 24N				R01-R03 23S						
12	OUT TX						R01-R03 23N				R01-R03 24S						

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REVISIONS	
NAME	DATE
REVISION 2	02/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57

FIBER OPTIC SCHEMATIC
 (SHEET 5 OF 8)

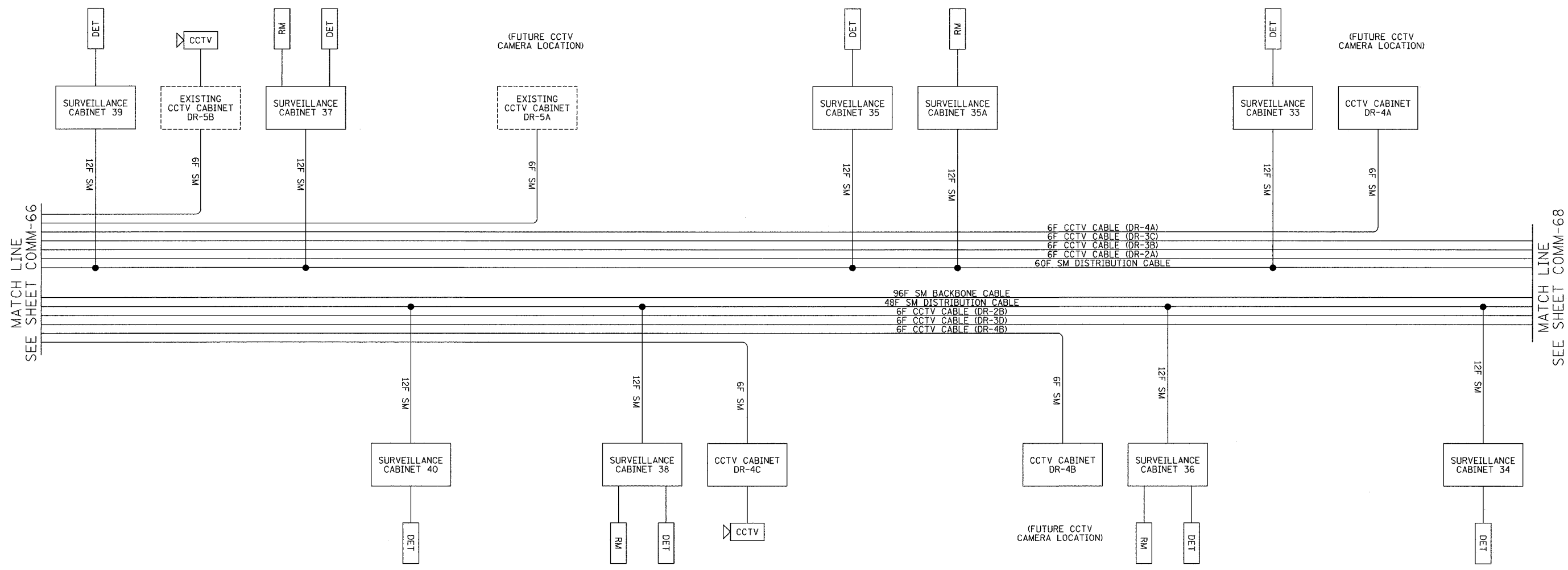
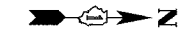
SCALE: NTS
 DATE: October 29, 2004

DRAWN BY: DHI
 CHECKED BY: JEZ

COMM-66

02/08/2005 04:24:47 PM

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-03II	COOK	976	833
STA. TO STA.		FED. AID PROJECT	
62583			



LEGEND
 --- EXISTING EQUIPMENT
 --- PROPOSED EQUIPMENT
 DMS DYNAMIC MESSAGE SIGN SITE
 DET VEHICLE DETECTOR SITE
 RM RAMP METER SITE

LEGEND:
 1. THIS DRAWING DEPICTS THE FIBER OPTIC SPLICING DETAILS. FOR FIBER OPTIC CABLE INSTALLATION DETAILS, SEE SHEETS COMM-01 THRU COMM-52. FOR SURVEILLANCE EQUIPMENT INSTALLATION DETAILS, SEE SHEETS DET-01 THRU DET-47. FOR CCTV EQUIPMENT INSTALLATION DETAILS, SEE SHEETS CCTV-01 THRU CCTV-34.

PICTAIL FIBER NO.	FUNCTION	APPLICATION DESCRIPTION	SURVEILLANCE CABINET 39												SURVEILLANCE CABINET 37												SURVEILLANCE CABINET 40												SURVEILLANCE CABINET 38												SURVEILLANCE CABINET 35												SURVEILLANCE CABINET 35A												SURVEILLANCE CABINET 36												SURVEILLANCE CABINET 33												SURVEILLANCE CABINET 34											
			SURVEILLANCE CABINET 39												SURVEILLANCE CABINET 37												SURVEILLANCE CABINET 40												SURVEILLANCE CABINET 38												SURVEILLANCE CABINET 35												SURVEILLANCE CABINET 35A												SURVEILLANCE CABINET 36												SURVEILLANCE CABINET 33												SURVEILLANCE CABINET 34											
1	IN TX	DATA CIRCUIT	R01-R02 18S	R01-R02 13N	R01-R03 6S	R01-R03 1N	R01-R02 10S	R01-R02 5N	R01-R03 17N	R01-R02 2S	R01-R03 14S	R01-R02 17S	R01-R02 14N	R01-R03 5S	R01-R03 2N	R01-R02 9S	R01-R02 6N	R01-R03 18N	R01-R02 1S	R01-R03 13S	R01-R02 18N	R01-R02 13S	R01-R03 6N	R01-R03 1S	R01-R02 10N	R01-R02 5S	R01-R03 17S	R01-R02 2N	R01-R03 14N	R01-R02 17N	R01-R02 14S	R01-R03 5N	R01-R03 2S	R01-R02 9N	R01-R02 6S	R01-R03 18S	R01-R02 1N	R01-R03 13N	R01-R02 20S	R01-R02 15N	R01-R03 8S	R01-R03 3N	R01-R02 12S	R01-R02 7N	R01-R03 19N	R01-R02 4S	R01-R03 16S	R01-R02 10S	R01-R02 16N	R01-R03 7S	R01-R03 4N	R01-R02 11S	R01-R02 8N	R01-R03 20N	R01-R02 3S	R01-R03 15S	R01-R02 20N	R01-R02 15S	R01-R03 8N	R01-R03 3S	R01-R02 12N	R01-R02 7S	R01-R03 19S	R01-R02 4N	R01-R03 16N	R01-R02 19N	R01-R02 16S	R01-R03 7N	R01-R03 4S	R01-R02 11N	R01-R02 8S	R01-R03 20S	R01-R02 3N	R01-R03 15N																																				
2	IN RX																																																																																																													
3	OUT RX																																																																																																													
4	OUT TX																																																																																																													
5		FUTURE																																																																																																												
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12	OUT TX																																																																																																													

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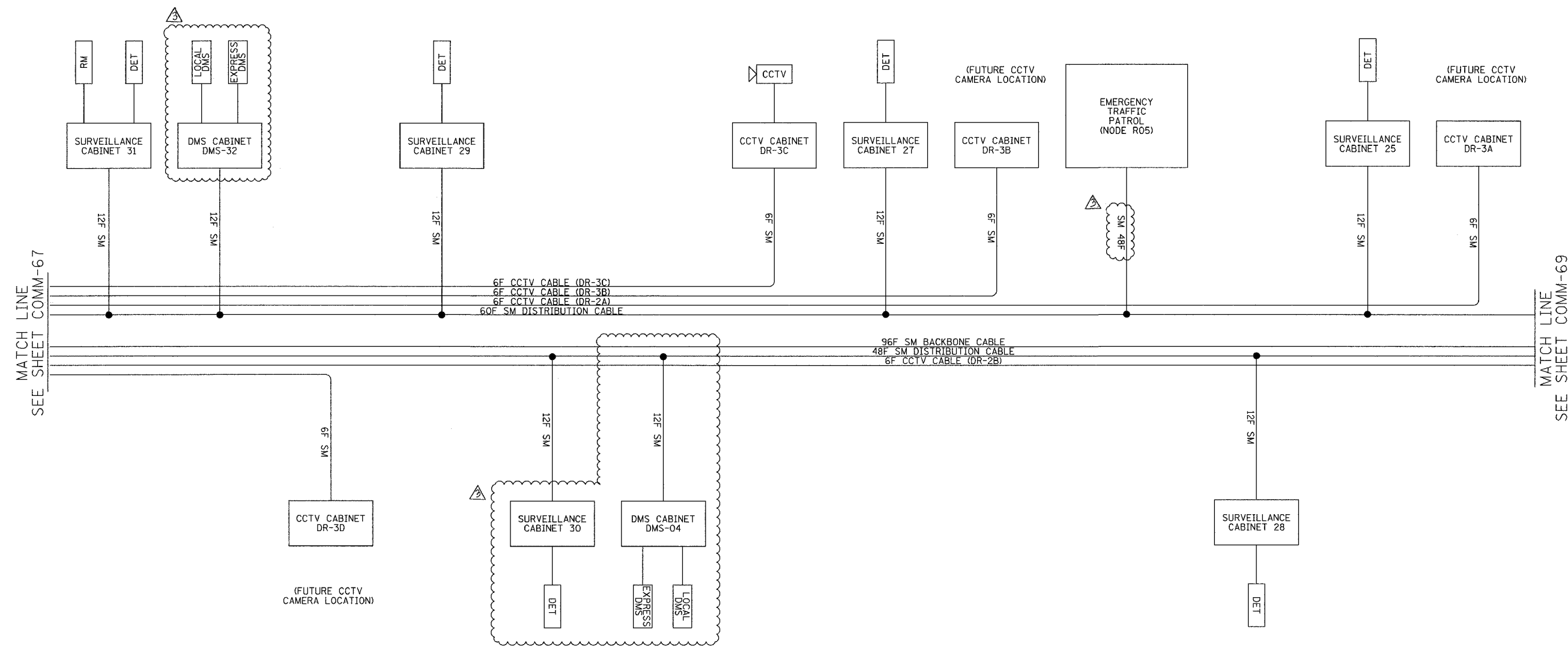
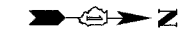
REVISIONS	
NAME	DATE
REVISION	02/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57
 FIBER OPTIC SCHEMATIC
 (SHEET 6 OF 8)
 SCALE: NTS
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: JEZ

COMM-67

02/08/2005 04:24:47 PM

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-03II	COOK	976	834
STA. TO STA.		FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	
62583			



MATCH LINE
SEE SHEET COMM-67

MATCH LINE
SEE SHEET COMM-69

- LEGEND**
--- EXISTING EQUIPMENT
— PROPOSED EQUIPMENT
- DMS DYNAMIC MESSAGE SIGN SITE
DET VEHICLE DETECTOR SITE
RM RAMP METER SITE
- LEGEND:**
1. THIS DRAWING DEPICTS THE FIBER OPTIC SPLICING DETAILS. FOR FIBER OPTIC CABLE INSTALLATION DETAILS, SEE SHEETS COMM-01 THRU COMM-52. FOR SURVEILLANCE EQUIPMENT INSTALLATION DETAILS, SEE SHEETS DET-01 THRU DET-47. FOR CCTV EQUIPMENT INSTALLATION DETAILS, SEE SHEETS CCTV-01 THRU CCTV-34.

PIGTAIL FIBER NO.	FUNCTION	APPLICATION DESCRIPTION	CABINET CONNECTIONS								
			SURVEILLANCE CABINET 31	DMS-32 CABINET	SURVEILLANCE CABINET 29	SURVEILLANCE CABINET 30	DMS CABINET DMS-04	SURVEILLANCE CABINET 27	SURVEILLANCE CABINET 28	SURVEILLANCE CABINET 25	
1	IN TX	DATA CIRCUIT	R01-R02 18S	R01-R02 13N	R01-R03 9N	R01-R02 10S	R01-R03 6S	R01-R02 5N			
2	IN RX		R01-R02 17S	R01-R02 14N	R01-R03 10N	R01-R02 9S	R01-R03 5S	R01-R02 6N			
3	OUT RX		R01-R02 18N	R01-R02 13S	R01-R03 9S	R01-R02 10N	R01-R03 6N	R01-R02 5S			
4	OUT TX		R01-R02 17N	R01-R02 14S	R01-R03 10S	R01-R02 9N	R01-R03 5N	R01-R02 6S			
5		FUTURE	R01-R02 20S	R01-R02 15N	R01-R03 11N	R01-R02 12S	R01-R03 8S	R01-R02 7N			
6			R01-R02 19S	R01-R02 16N	R01-R03 12N	R01-R02 11S	R01-R03 7S	R01-R02 8N			
7			R01-R02 20N	R01-R02 15S	R01-R03 11S	R01-R02 12N	R01-R03 8N	R01-R02 7S			
8			R01-R02 19N	R01-R02 16S	R01-R03 12S	R01-R02 11N	R01-R03 7N	R01-R02 8S			
9	IN TX	DMS	R01-R02 22S		R01-R03 21N						
10	IN RX		R01-R02 21S		R01-R03 22N						
11	OUT RX		R01-R02 22N		R01-R03 21S						
12	OUT TX		R01-R02 21N		R01-R03 22S						

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REVISIONS	
NAME	DATE
REVISION 2	02/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57

FIBER OPTIC SCHEMATIC
(SHEET 7 OF 8)

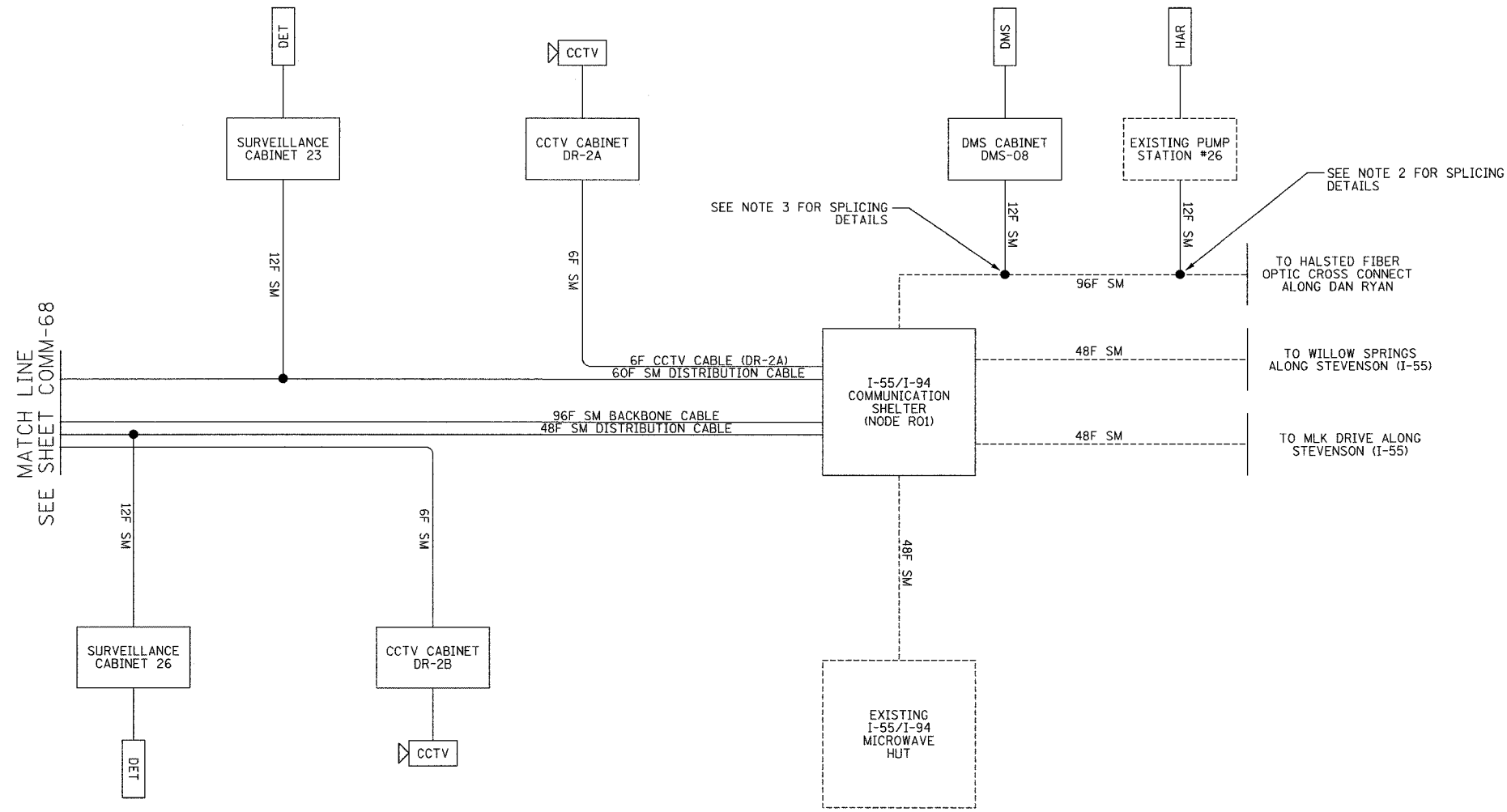
SCALE: NTS
DATE: October 29, 2004

DRAWN BY: DHI
CHECKED BY: JEZ

COMM-68

02/08/2005 04:24:47 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-031I	COOK	976	835
STA.		TO STA.		
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		
62583				



MATCH LINE
SEE SHEET COMM-68

SEE NOTE 3 FOR SPLICING DETAILS

SEE NOTE 2 FOR SPLICING DETAILS

TO HALSTED FIBER OPTIC CROSS CONNECT ALONG DAN RYAN

TO WILLOW SPRINGS ALONG STEVENSON (I-55)

TO MLK DRIVE ALONG STEVENSON (I-55)

LEGEND
 ---- EXISTING EQUIPMENT
 - - - - PROPOSED EQUIPMENT

DMS DYNAMIC MESSAGE SIGN SITE
 DET VEHICLE DETECTOR SITE
 RM RAMP METER SITE

- LEGEND:**
- THIS DRAWING DEPICTS THE FIBER OPTIC SPLICING DETAILS. FOR FIBER OPTIC CABLE INSTALLATION DETAILS, SEE SHEETS COMM-01 THRU COMM-52. FOR SURVEILLANCE EQUIPMENT INSTALLATION DETAILS, SEE SHEETS DET-01 THRU DET-47. FOR CCTV EQUIPMENT INSTALLATION DETAILS, SEE SHEETS CCTV-01 THRU CCTV-34.
 - CONTRACTOR TO PATCH TO EXISTING FIBER OPTIC CABLE IN EXISTING DMS CABINET. SEE SHEET COMM-53 FOR INSTALLATION DETAILS.
 - CONTRACTOR SHALL COORDINATE WITH ENGINEER WHEN SPLICING INTO EXISTING 96 FIBER CABLE AT THE CHICAGO RIVER DMS. SEE SHEET COMM-52 FOR INSTALLATION DETAILS.

PIGTAIL FIBER NO.	FUNCTION	APPLICATION DESCRIPTION	SURVEILLANCE CABINET 26	SURVEILLANCE CABINET 23
1	IN TX	DATA CIRCUIT	R01-R03 1N	R01-R02 2S
2	IN RX		R01-R03 2N	R01-R02 1S
3	OUT RX		R01-R03 1S	R01-R02 2N
4	OUT TX		R01-R03 2S	R01-R02 1N
5		FUTURE	R01-R03 3N	R01-R02 4S
6			R01-R03 4N	R01-R02 3S
7			R01-R03 3S	R01-R02 4N
8			R01-R03 4S	R01-R02 3N
9	IN TX	DMS		
10	IN RX			
11	OUT RX			
12	OUT TX			

Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
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REVISIONS	
NAME	DATE
REVISION	02/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57

FIBER OPTIC SCHEMATIC
 (SHEET 8 OF 8)

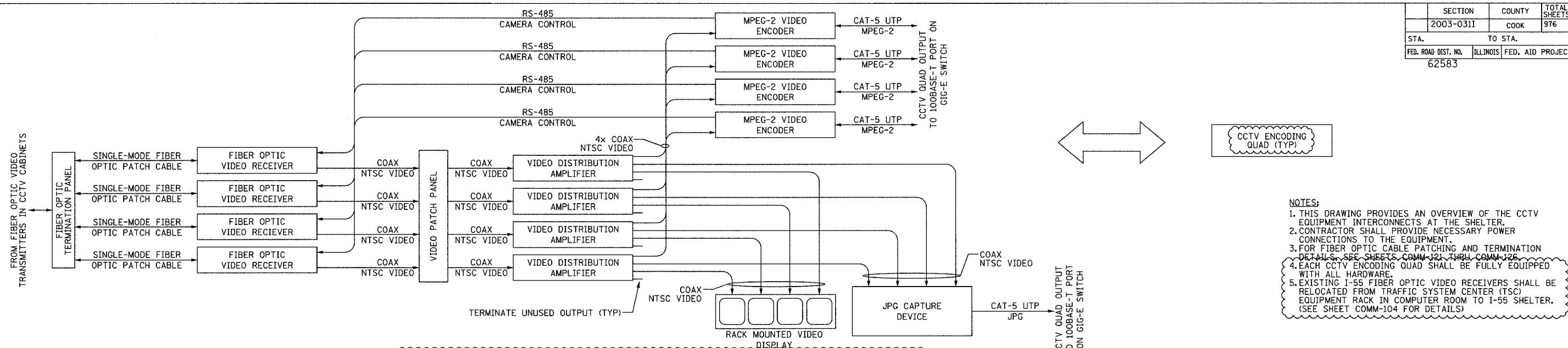
SCALE: NTS
 DATE: October 29, 2004

DRAWN BY: DHI
 CHECKED BY: JEZ

COMM-69

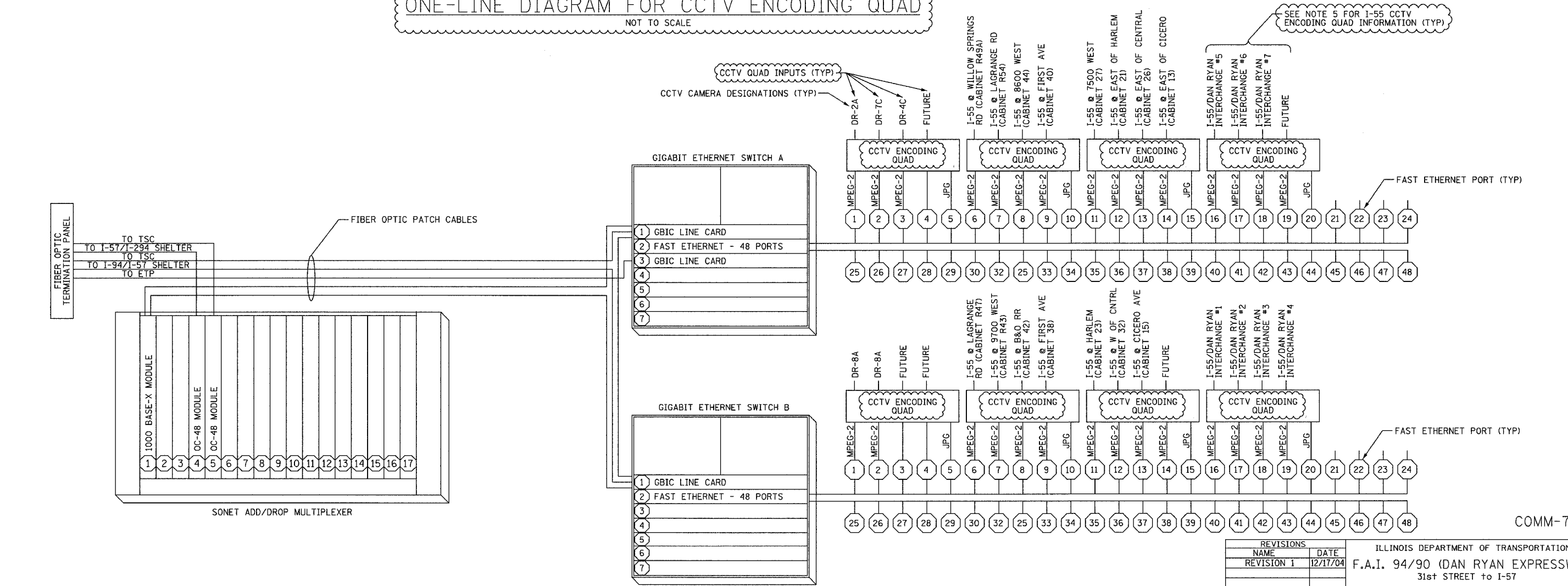
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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	836
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			



ONE-LINE DIAGRAM FOR CCTV ENCODING QUAD
NOT TO SCALE

- NOTES:
1. THIS DRAWING PROVIDES AN OVERVIEW OF THE CCTV EQUIPMENT INTERCONNECTS AT THE SHELTER.
 2. CONTRACTOR SHALL PROVIDE NECESSARY POWER CONNECTIONS TO THE EQUIPMENT.
 3. FOR FIBER OPTIC CABLE PATCHING AND TERMINATION DETAILS, SEE SHEETS COMM-121 THRU COMM-126.
 4. EACH CCTV ENCODING QUAD SHALL BE FULLY EQUIPPED WITH ALL HARDWARE.
 5. EXISTING I-55 FIBER OPTIC VIDEO RECEIVERS SHALL BE RELOCATED FROM TRAFFIC SYSTEM CENTER (TSC) EQUIPMENT RACK IN COMPUTER ROOM TO I-55 SHELTER. (SEE SHEET COMM-104 FOR DETAILS)



EQUIPMENT INTERCONNECT DIAGRAM
NOT TO SCALE

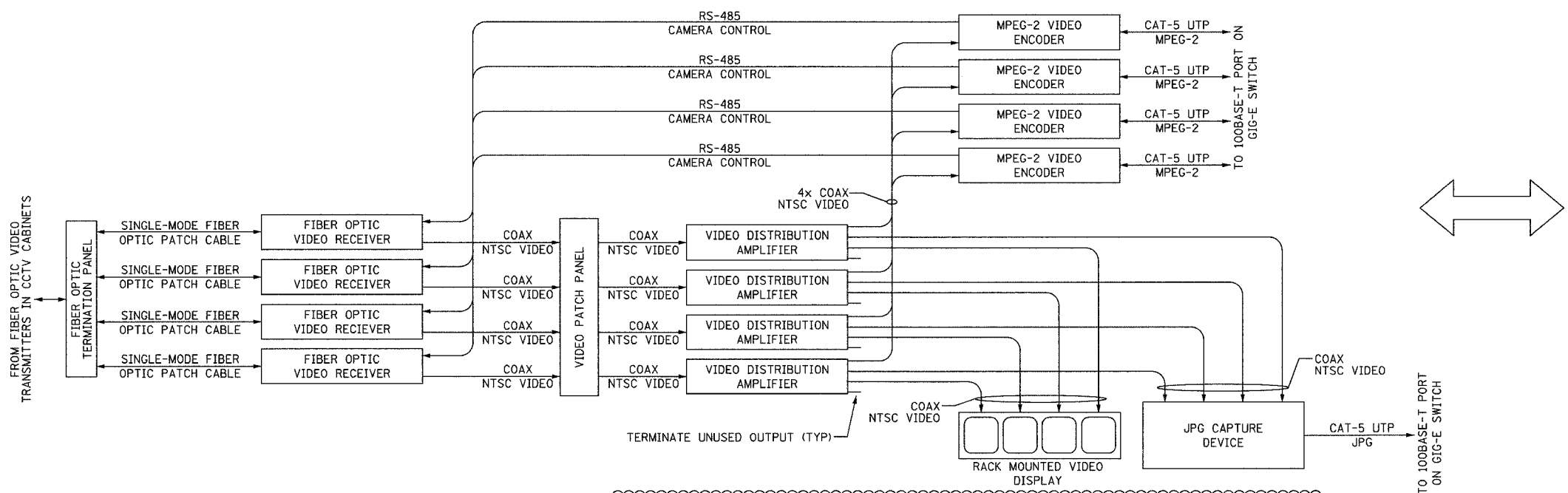
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) 31st STREET to I-57
NAME	DATE	
REVISION 1	12/17/04	I-55 SHELTER (R01) CCTV DISTRIBUTION SUBSYSTEM

SCALE: NOT TO SCALE
DATE: October 29, 2004
DRAWN BY: DHI
CHECKED BY: JEZ

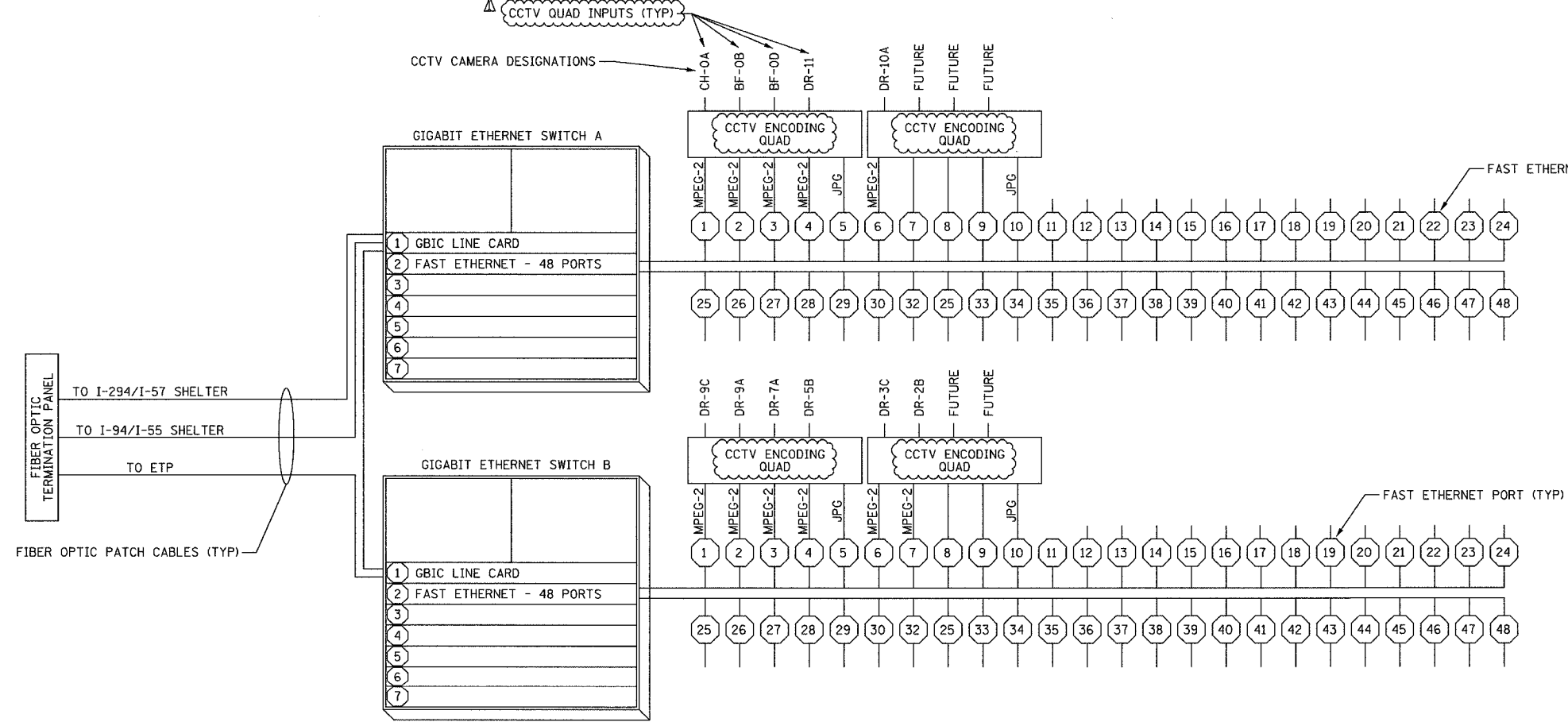
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CHICAGO, IL 60606
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FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	837
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			



ONE-LINE DIAGRAM FOR CCTV ENCODING QUAD
NOT TO SCALE



- NOTES:
1. THIS DRAWING IS FOR REFERENCE ONLY AND PROVIDES AN OVERVIEW OF THE CCTV EQUIPMENT INTERCONNECTS AT THE SHELTER.
 2. CONTRACTOR SHALL PROVIDE NECESSARY POWER CONNECTIONS TO THE EQUIPMENT.
 3. FOR FIBER OPTIC CABLE PATCH AND TERMINATION DETAILS, SEE SHEETS COMM-110 THRU COMM-113.
 4. EACH CCTV ENCODING QUAD SHALL BE FULLY EQUIPPED WITH ALL HARDWARE.

COMM-71

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EQUIPMENT INTERCONNECT DIAGRAM
NOT TO SCALE

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57

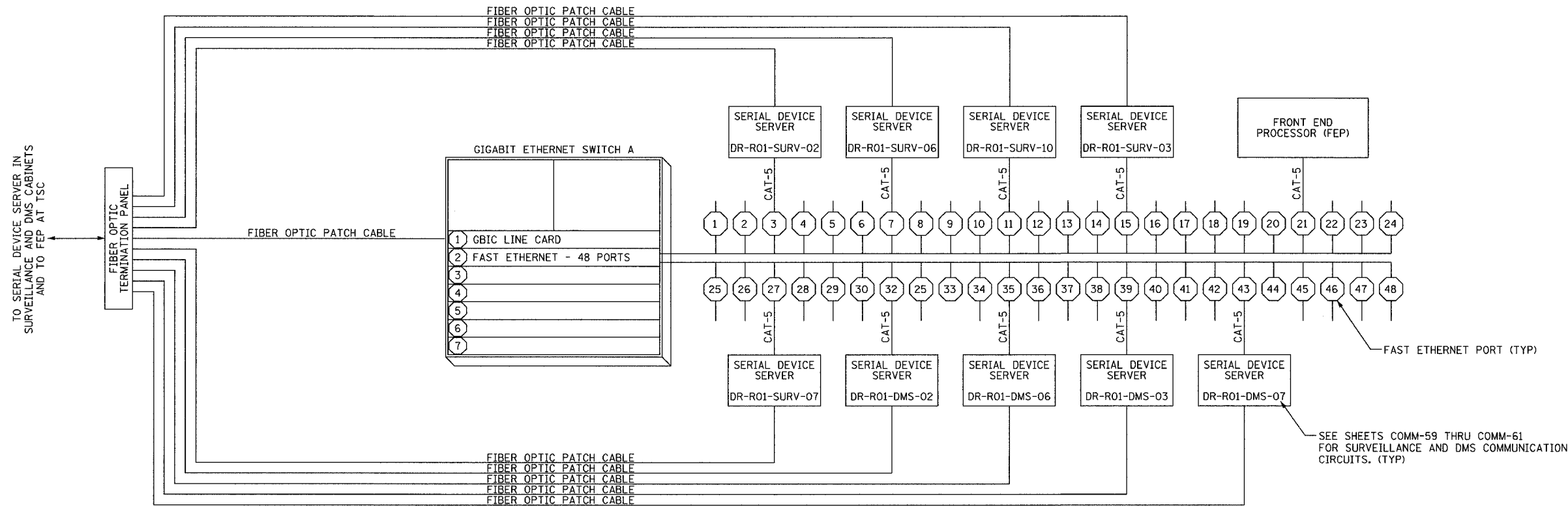
I-57 SHELTER (R04)
CCTV DISTRIBUTION SUBSYSTEM

SCALE: NOT TO SCALE
DATE: October 29, 2004

DRAWN BY: DHI
CHECKED BY: JEZ

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	838
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62583				



COMM-72

NOTES:
 1. FOR FIBER OPTIC CABLE PATCHING AND TERMINATION DETAILS, SEE SHEETS COMM-121 THRU COMM-126.

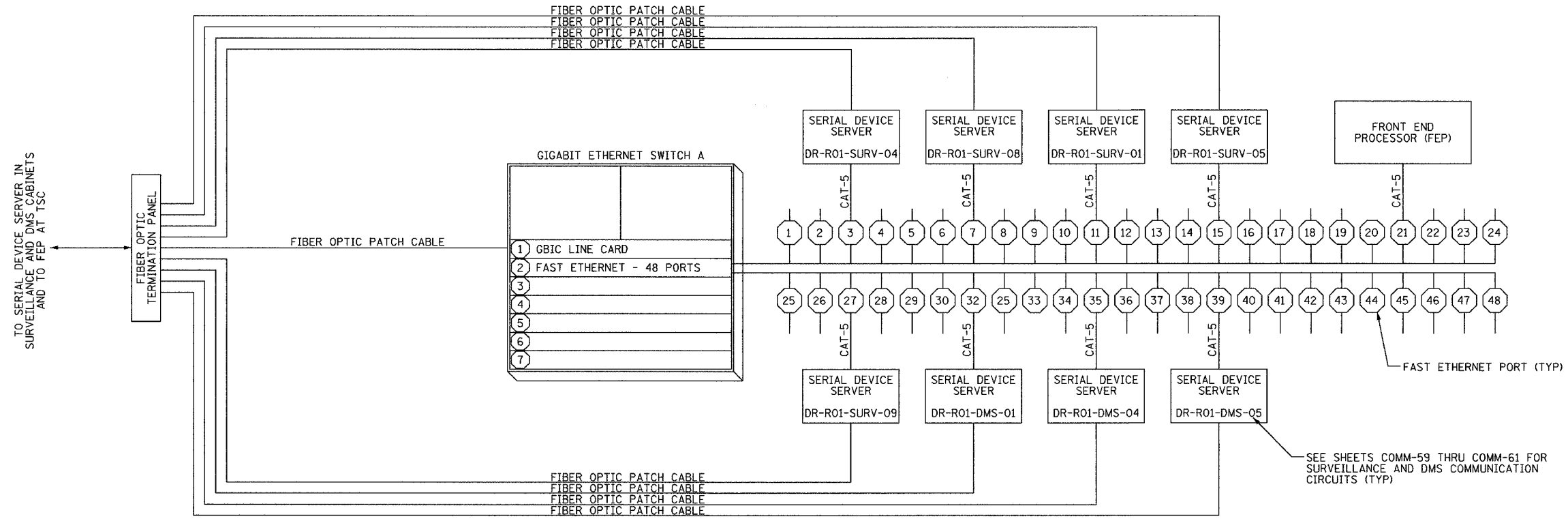
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57
 I-55 SHELTER (R01)
 TRAFFIC SURVEILLANCE SYSTEM
 SCALE: NOT TO SCALE
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: JEZ

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	839
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62583				



SEE SHEETS COMM-59 THRU COMM-61 FOR SURVEILLANCE AND DMS COMMUNICATION CIRCUITS (TYP)

COMM-73

NOTES:
1. FOR FIBER OPTIC CABLE PATCHING AND TERMINATION DETAILS, SEE SHEETS COMM-110 THRU COMM-113.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57

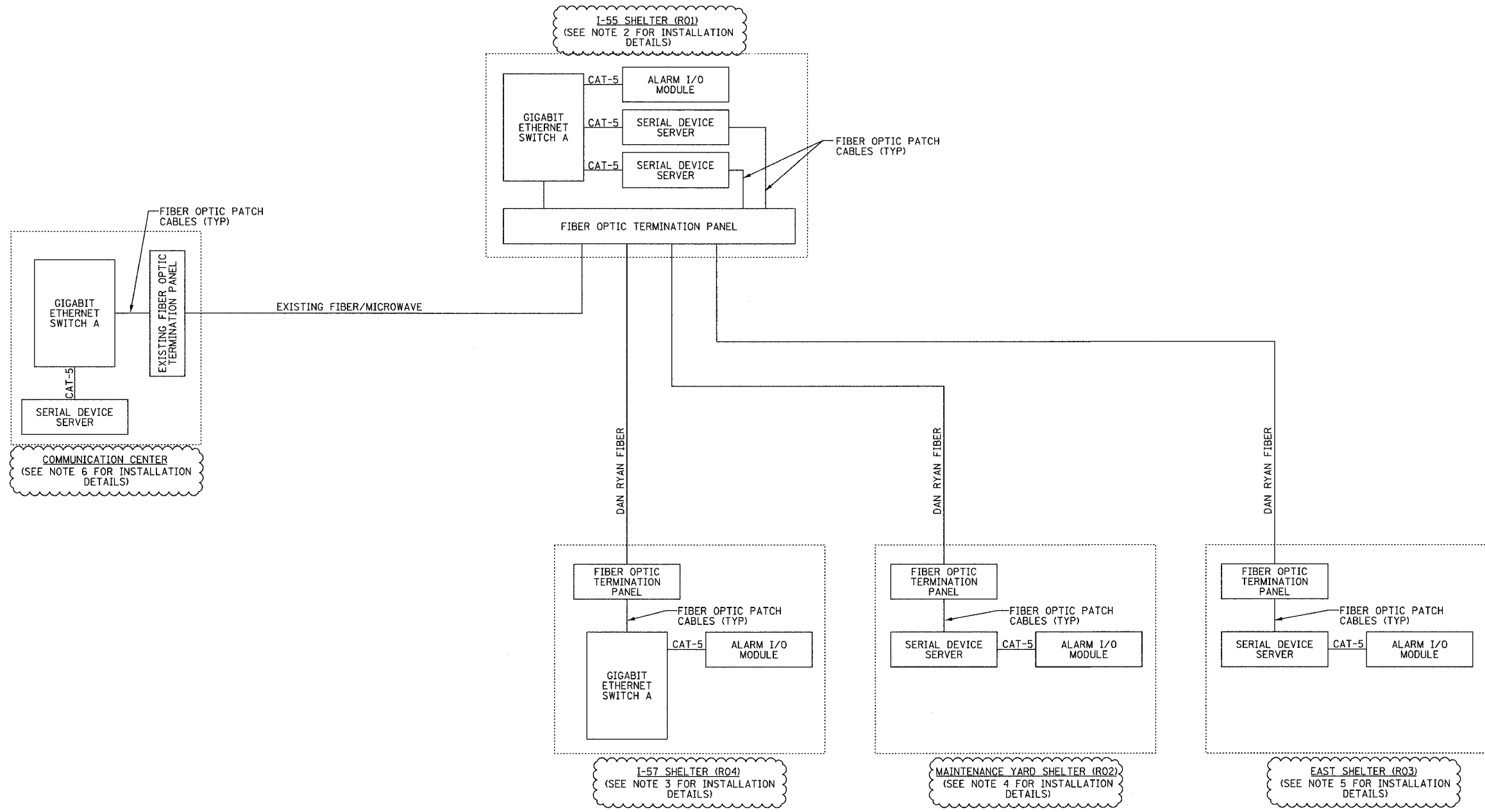
I-57 SHELTER (R04)
TRAFFIC SURVEILLANCE SYSTEM

SCALE: NOT TO SCALE
DATE: October 29, 2004
DRAWN BY: DHI
CHECKED BY: JEZ

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	840
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62583				



- NOTES:**
1. SEE SHEETS COMM-110 THRU COMM-126 FOR FIBER OPTIC CABLE PATCHING AND TERMINATION DETAILS AT EACH ONE OF THE SHELTER LOCATIONS.
 2. SEE SHEETS COMM-85 THRU COMM-90 FOR INSTALLATION DETAILS AT THE I-55 SHELTER.
 3. SEE SHEETS COMM-95 THRU COMM-96 FOR INSTALLATION DETAILS AT THE I-57 SHELTER.
 4. SEE SHEETS COMM-80 THRU COMM-84 FOR INSTALLATION DETAILS AT THE MAINTENANCE YARD SHELTER.
 5. SEE SHEETS COMM-75 THRU COMM-79 FOR INSTALLATION DETAILS EAST SHELTER.
 6. SEE SHEETS COMM-101 THRU COMM-103 FOR INSTALLATION DETAILS AT THE COMMUNICATION CENTER.

REVISIONS	
NAME	DATE
REVISION 1	12/17/04

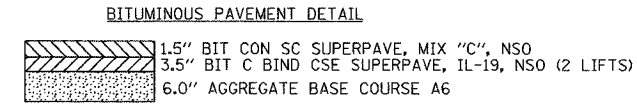
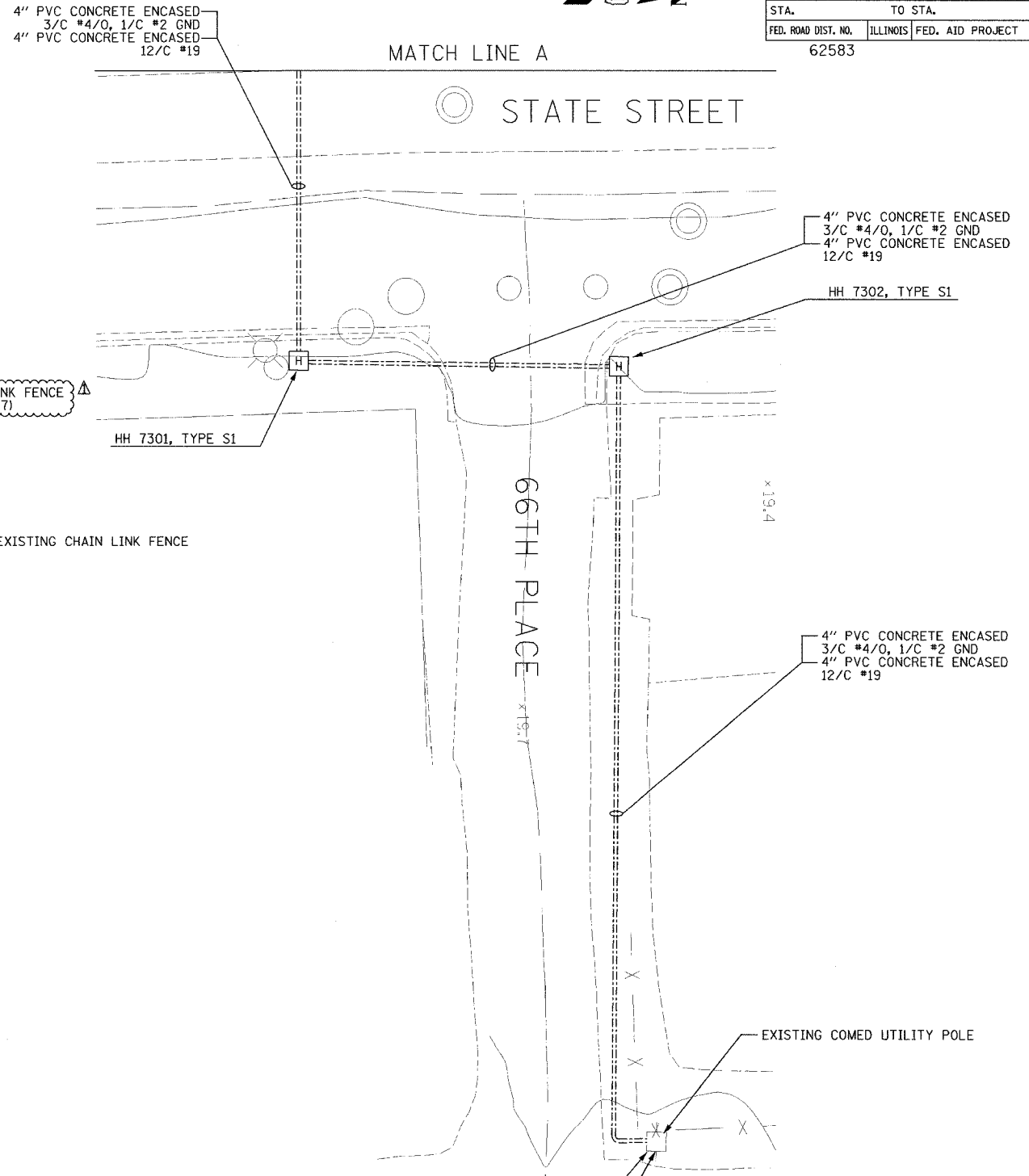
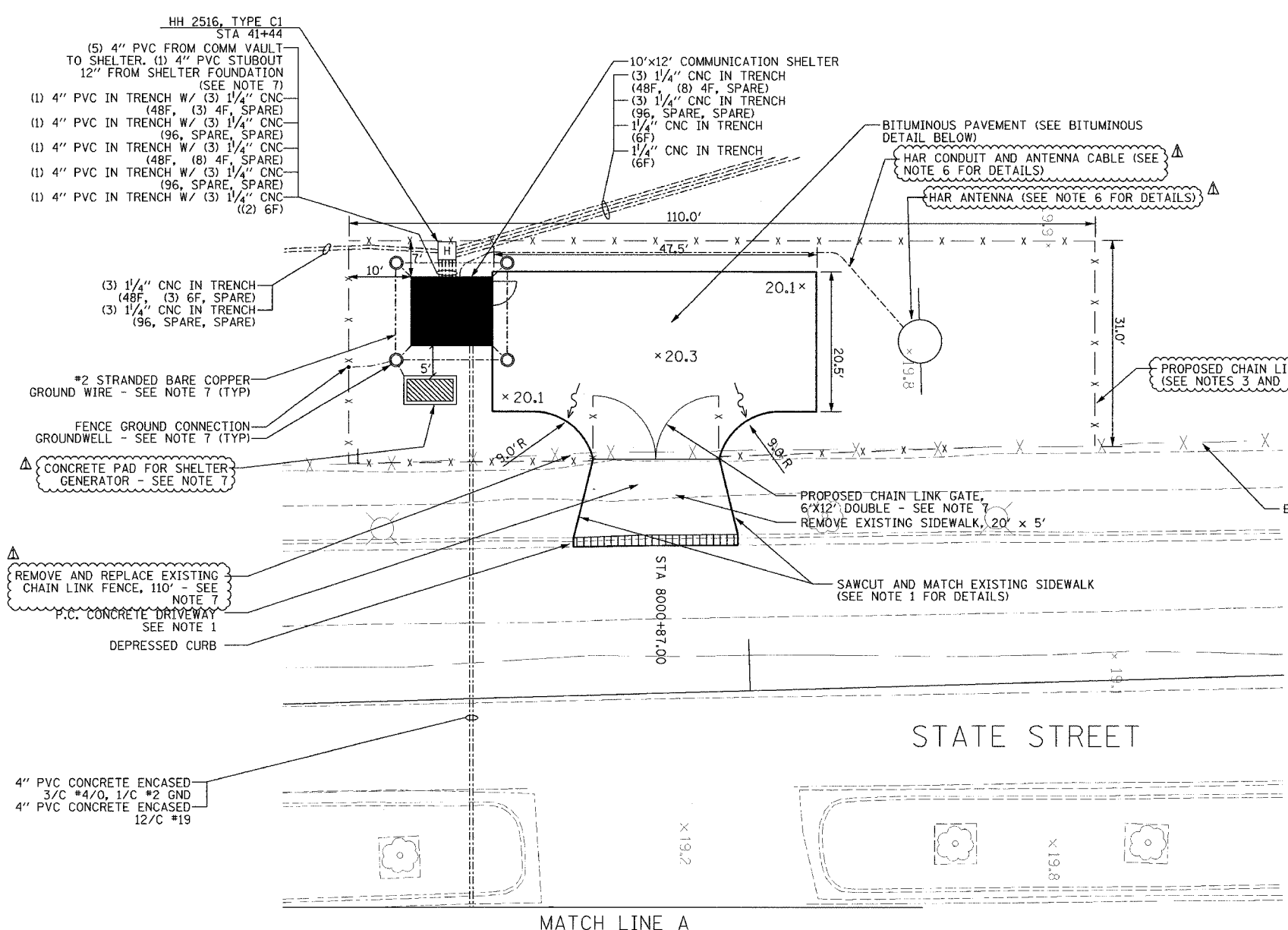
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57
 SHELTER ALARMS
 SYSTEM SCHEMATIC
 SCALE: NOT TO SCALE
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: JEZ

COMM-74

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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-03II	COOK	976	841
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			

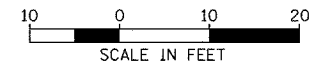


LEGEND

×	20.50	EXISTING GRADES
×	20.50	PROPOSED GRADES

- NOTES:**
- FOR P.C. CONCRETE DRIVEWAY, REFER TO CDOT DETAIL SHEET BD17.
 - CENTERLINE OF PROPOSED DRIVEWAY TO ALIGN WITH CENTER LINE OF 66TH PLACE.
 - FOR COMMUNICATIONS SHELTER DETAILS, REFER TO SHEETS COMM-91 THRU COMM-94.
 - CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND RELOCATING ALL EXISTING UNDERGROUND UTILITIES AS NECESSARY TO CONSTRUCT COMMUNICATIONS SHELTER.
 - FOR ELECTRIC SERVICE INSTALLATION DETAILS, SEE ESD-01.
 - FOR HIGHWAY ADVISOR RADIO TRANSMITTER PLANS, SEE SHEETS HAR-01 THRU HAR-03.
 - DESIGNATED WORK/MATERIALS TO BE PAID FOR AS PART OF SHELTER.
 - PAVEMENT AND SIDEWALK REPLACEMENT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONCRETE ENCASED CONDUIT INSTALLATION.
 - ALL WORK ASSOCIATED WITH THE INSTALLATION OF THE SHELTER UTILITY SERVICE FEED MUST BE COORDINATED WITH AND APPROVED BY COMED.
 - ALL MATERIALS AND LABOR FOR THE INSTALLATION OF THE CONCRETE ENCASED DUCTBANK FOR UTILITY SERVICE FEED MUST MEET ALL COMED REQUIREMENTS AND STANDARDS.

ELECTRIC UTILITY SERVICE CONNECTION
 ELECTRIC SERVICE INSTALLATION, 200A, 120/240V
 (SEE SHEET COMM-77 & ESD-01 FOR DETAILS)
 UNDERGROUND TELEPHONE SERVICE INSTALLATION



REVISIONS	
NAME	DATE
REVISION 1	12/17/04
REVISION	2/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57

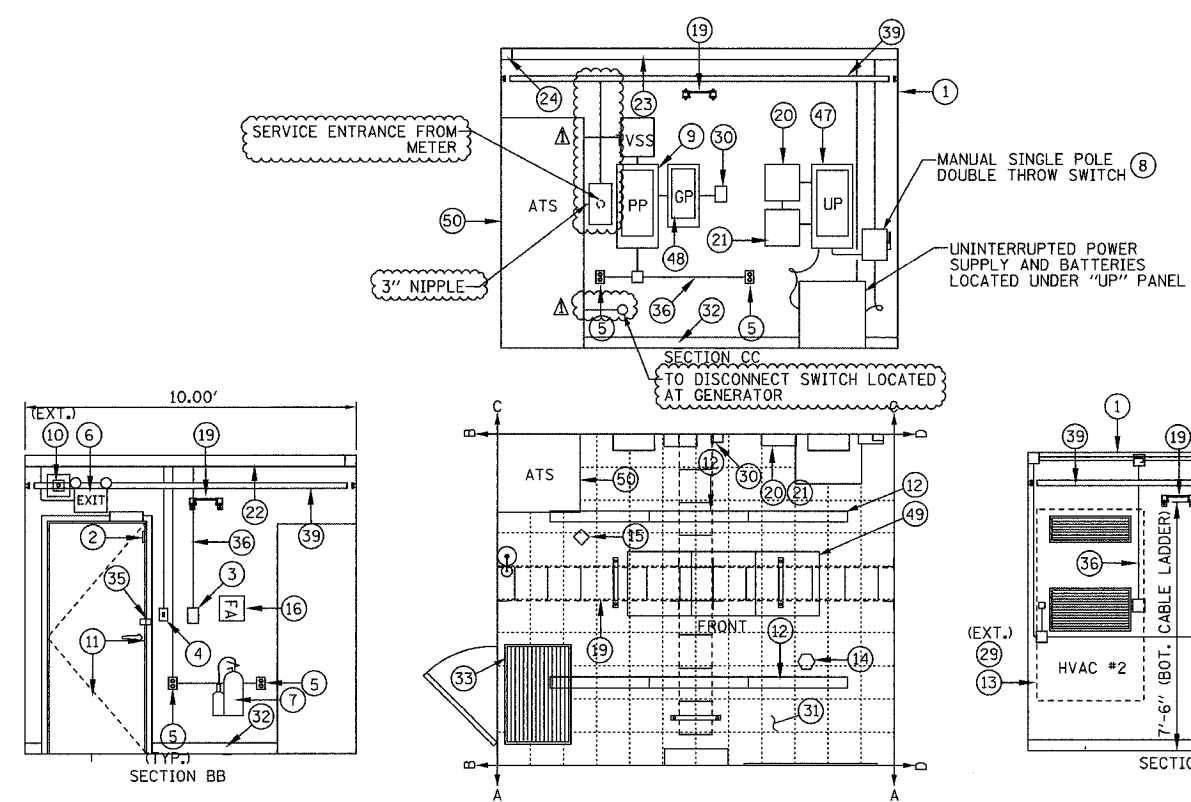
EAST SHELTER (R03) SITE PLAN

SCALE: 1"=10'
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: MJL

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 CHICAGO, IL 60606
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	842
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62583				



TELCO BOARD 3/4" x 4'-0" x 4'-0" PLYWOOD COVERED W/ FRP

LEGEND

- ⊙ MAIN MATERIAL LIST KEY
- ⊕ ELECTRICAL NOTES KEY
- ◇ PHOTOELECTRIC DETECTOR
- IONIZATION DETECTOR
- ⊞ JUNCTION BOX
- ⊥ LIGHT SWITCH
- ⊕ QUAD RECEPTACLE
- ⊕ DUPLEX RECEPTACLE
- FLUORESCENT LIGHT FIXTURE
- CABLE TRAY
- COMMUNICATION EQUIPMENT RACK

EQUIPMENT LAYOUT

ELECTRICAL LAYOUT

ITEM	DESCRIPTION
1	PREFABRICATED 10'X12'X9'H (INTERIOR DIMENSION) CONCRETE EQUIPMENT SHELTER
2	DOOR INTRUSION SENSOR
3	DUAL HVAC UNIT CONTROLLER
4	SINGLE POLE LIGHT SWITCH
5	DUPLEX RECEPTACLE
6	COMBINED EMERGENCY LIGHT W/ BATTERY BACKUP
7	10 LB. CARBON DIOXIDE FIRE EXTINGUISHER, WALL MOUNTED
8	TWO POLE, DOUBLE THROW DISCONNECT SWITCH, 240 VAC, NEMA 1 ENCLOSURE
9	NORMAL POWER PANEL "PP" 120/240 VAC, 3W, 225 AMP PANEL
10	35W HIGH PRESSURE SODIUM, VANDAL RESISTANT EXTERIOR MOUNTED FLOODLIGHT, WITH PHOTOCELL
11	36" x 80" INSULATED HOLLOW METAL CORE DOOR AND FRAME
12	FLUORESCENT LIGHT, 2 LAMPS 30 WATTS EACH, 120 VOLT
13	AIR CONDITIONING UNIT W/ GRILLS
14	CEILING MOUNTED SMOKE DETECTOR (IONIZATION TYPE)
15	CEILING MOUNTED SMOKE DETECTOR (PHOTOELECTRIC TYPE)
16	FIRST AID KIT
17	(NOT USED)
18	TYPE 68 BLOCKS, MODULE 50M - 1500W W/ 2 R66M 50 BLOCKS AND BLOCK COVERS
19	12" CABLE TRAY (SEE SHEET COMM-95 FOR DETAILS)
20	FIRE ALARM PANEL
21	ALARM I/O MODULE
22	4" x 4" x 10' WIREWAY
23	4" x 4" x 20' WIREWAY
24	4" x R" CORNER PIECE
25	6" RECEPTACLE STRIP W/ OUTLETS EVERY 1'
26	CONDUIT ADAPTER

ITEM	DESCRIPTION
27	ELBOW ADAPTER
28	END CAP
29	VANDAL PROOF CAGE FOR HVAC
30	REMOTE ANNUNCIATOR MODULE (PRE-PURCHASED)
31	FLOOR TILES - 1/4" x 12" x 12" COMMERCIAL TILE
32	BASE FINISH, 4" BLACK BASE COVER MOLD 10' x 12' SHELTER
33	24" x 36" RUBBER MAT
34	INSULATION MATERIAL FOR 10' x 20' x 9' FIRE RESISTANT R-19
35	1 1/2" x 2" x 2" ANGLE PLATES AT EXTERIOR DOOR AND WALL FOR VANDAL PROOF LOCK
36	3/4" CONDUIT
37	1/2" CONDUIT
38	UPS SYSTEM, 10KVA, 240 VAC INPUT, 120 VOLT, 10 OUTPUT (PAID FOR AS PART OF SHELTER)
39	INTERIOR COPPER GROUND BUS BAR (SEE SHEET COMM-95 FOR DETAILS)
40	INTERIOR GROUND SYSTEM - GROUND LEAD TO EXTERIOR GROUND SYSTEM
41	INTERIOR GROUND SYSTEM - NON-DIRECTIONAL SPLICE
42	INTERIOR GROUND SYSTEM - GROUND WALL SUPPORT
43	INTERIOR GROUND SYSTEM - GROUND BUS GROUND TAP
44	INTERIOR GROUND SYSTEM - CABLE LADDER BOND
45	INTERIOR GROUND SYSTEM - DOOR BONDING STRIP
46	INTERIOR GROUND SYSTEM - PVC 45% NIPPLE
47	UPS PANEL "UP" 120/240VAC, 2W, 100 AMP PANEL
48	STANDBY GENERAL PANEL "GP"
49	EQUIPMENT RACK (PAID FOR AS PART OF CCTV DISTRIBUTION SUBSYSTEM)
50	AUTOMATIC TRANSFER SWITCH (ATS)
51	WALL MOUNTED FIBER OPTIC TERMINATION PANEL

- ① (2) #4/0, (1) #4/0 NEUTRAL & (1) #2 GND, 3"C
- ② (2) #3 & (1) #8 GND, 1"C
- ③ (2) #8 & (1) #10 GND, 3/4"C
- ④ (2) #10 & (1) #12 GND, 3/4"C
- ⑤ (2) #12 & (1) #12 GND, 3/4"C
- ⑥ (1) #4 GRD. WIRE, 3/4"C
- ⑦ COPPER GROUND BUS (SEE SHEET COMM-95 FOR DETAILS)
- ⑧ QUANTITY & CONTROL WIRE SIZE PER MANUFACTURER'S RECOMMENDATION, 1/2" RGS
- ⑨ (1) #8 BARE COPPER GROUND
- ⑩ (2) #22 AWG TWISTED PAIR, 3/4"C
- ⑪ (1) #2 GROUND, 1" C

NOTES:

1. CONDUIT AND WIRING IS SHOWN DIAGRAMATIC. ACTUAL LOCATION OF EQUIPMENT AND HARDWARE SHALL BE SHOWN IN SHOP DRAWINGS AND SHALL BE APPROVED BY THE ENGINEER.
2. CONTRACTOR SHALL MAINTAIN MINIMUM 36" CLEARANCE WHEN INSTALLING EQUIPMENT RACKS AND EQUIPMENT.
3. ALL CABLE TRAY AND EQUIPMENT SHALL HAVE GROUND WIRE INSTALLED SIZED AS PER ELECTRICAL CODE REQUIREMENTS.
4. SEE SHEETS COMM-114 THRU COMM-117 FOR FIBER OPTIC PATCHING AND TERMINATION INFORMATION.
5. ROUTE ALARM CABLE FROM ALARM OUTPUT DEVICES TO ALARM INPUT PANEL VIA CABLE TRAY. SEE SHEET COMM-78 FOR SHELTER ALARM SCHEMATIC.
6. COORDINATE SERVICE ENTRANCE AND CONDUIT PENETRATION LOCATIONS AS DETAILED PER SHELTER SITE PLAN.

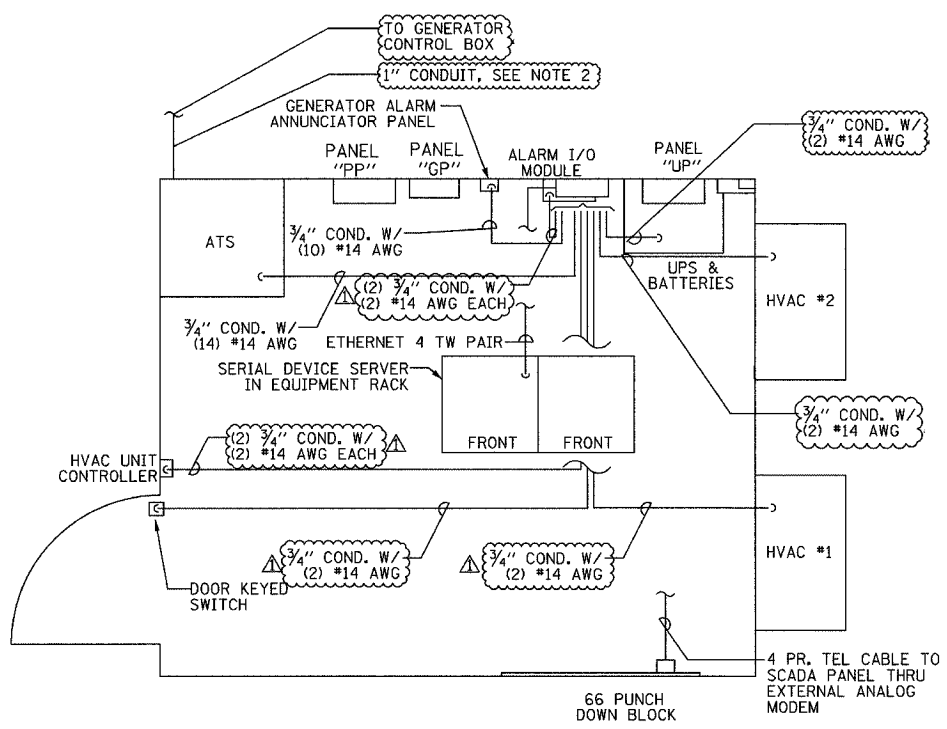
COMM-76

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) 31st STREET to I-57
NAME	DATE	
REVISION 1	12/17/04	EAST SHELTER (R03) EQUIPMENT AND ELECTRICAL LAYOUT
		SCALE: NOT TO SCALE
		DATE: October 29, 2004
		DRAWN BY: JM
		CHECKED BY: CS

Edwards AND Kelcey
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CHICAGO, IL 60606
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FAX: (312) 251-3015
WEB: WWW.EXCORP.COM

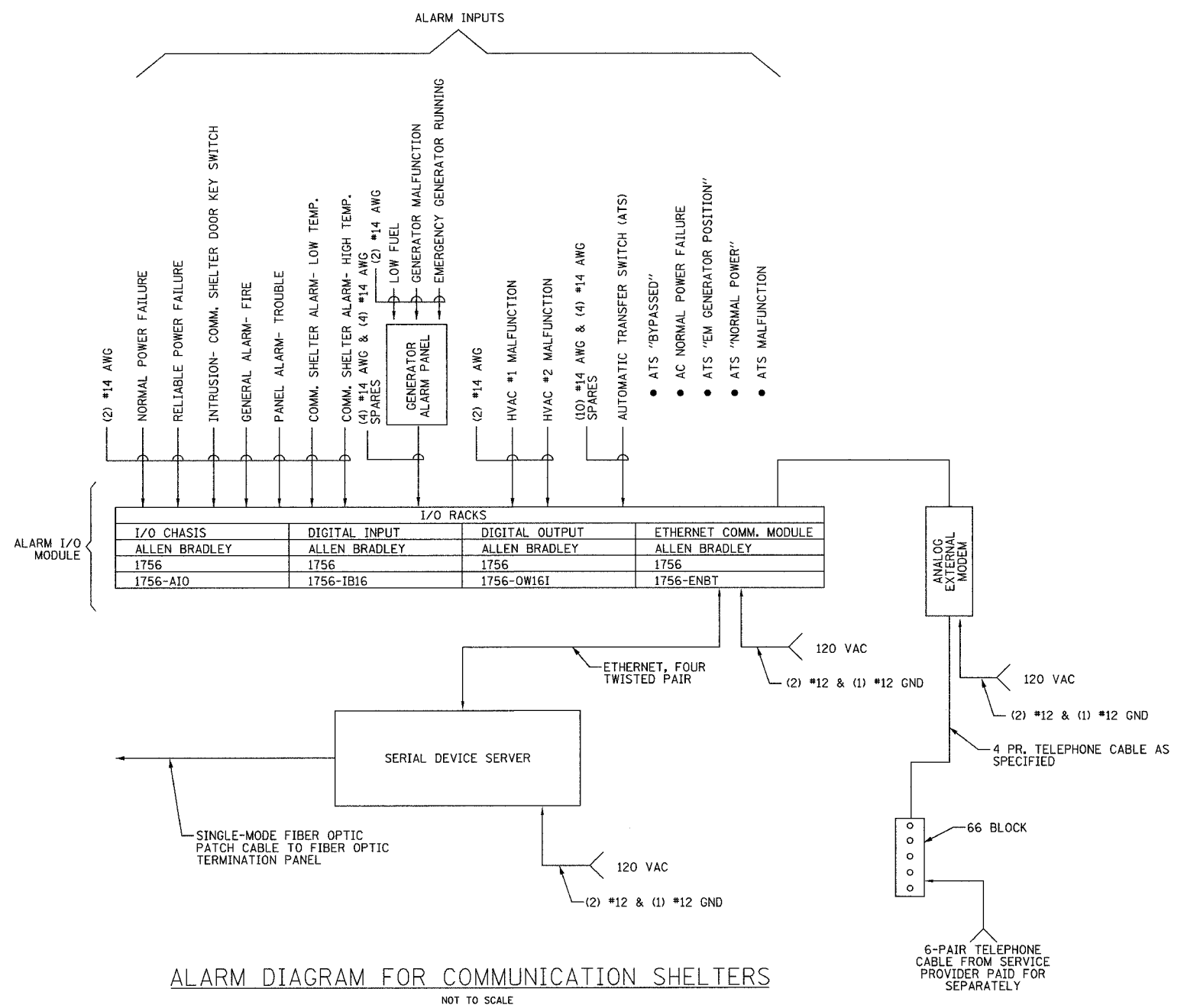
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	844
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62583				



ALARM WIRING LAYOUT
NOT TO SCALE

- NOTES:
1. ALL ALARM WIRE INSULATION SHALL BE THWN UNLESS NOTED OTHERWISE.
 2. QUANTITY OF ALARM & CONTROL WIRE SIZE PER MANUFACTURER'S RECOMMENDATION.



ALARM DIAGRAM FOR COMMUNICATION SHELTERS
NOT TO SCALE

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CHICAGO, IL 60606
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FAX: (312) 251-3015
WEB: WWW.EXCORP.COM

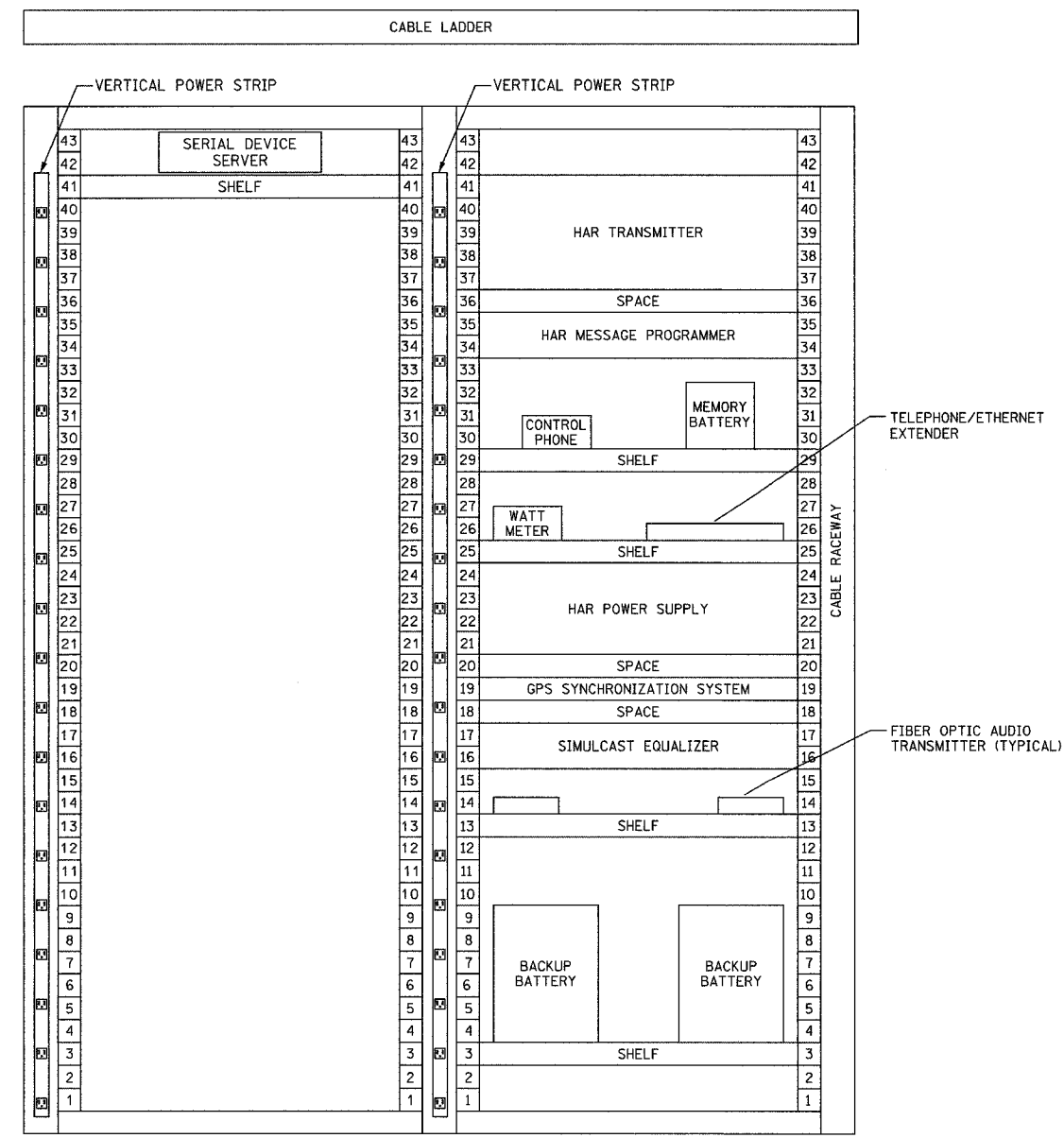
REVISIONS	
NAME	DATE
REVISION 1	12/17/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57
EAST SHELTER (R03)
ALARM SCHEMATIC
SCALE: NOT TO SCALE
DATE: October 29, 2004
DRAWN BY: JM
CHECKED BY: CS

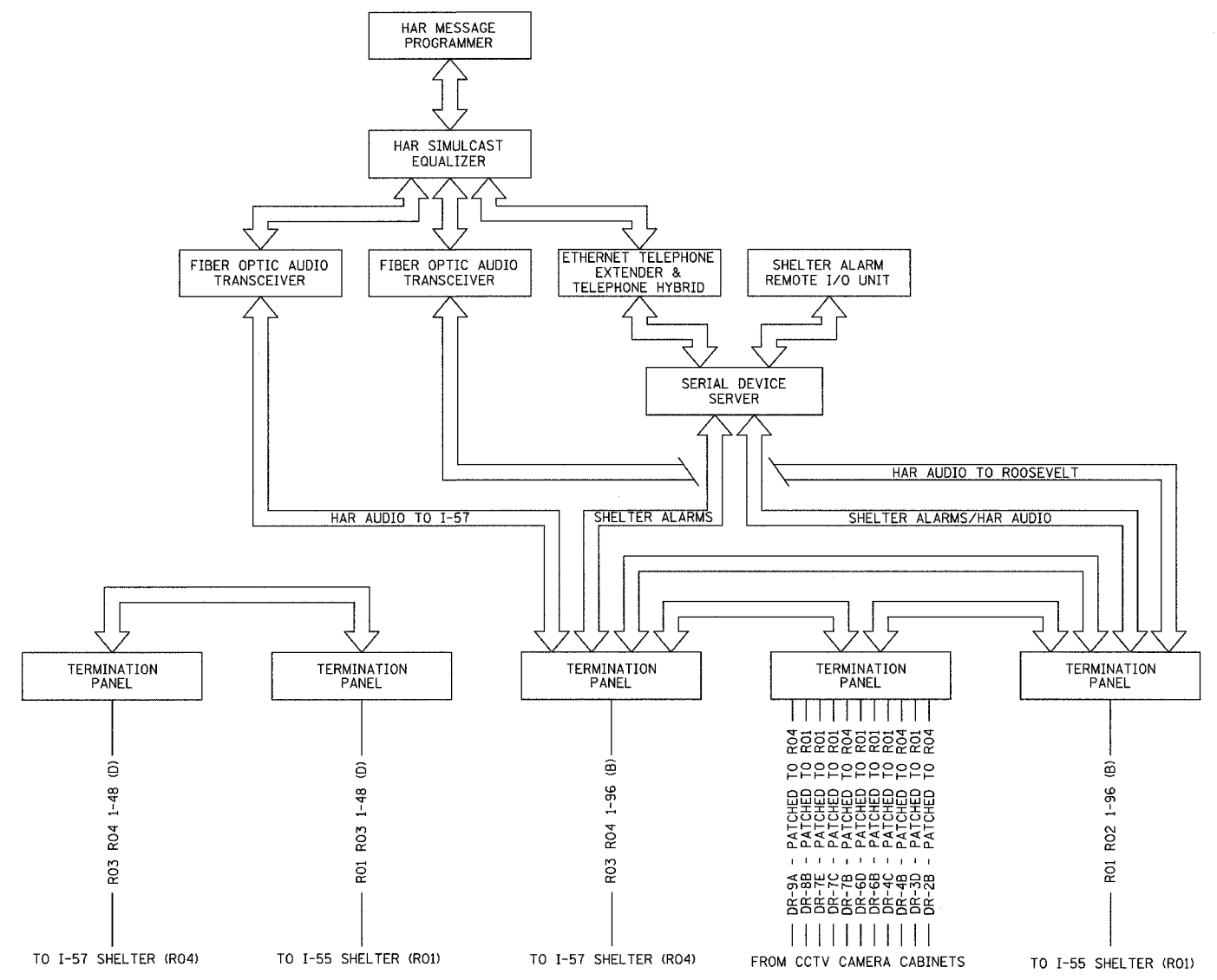
COMM-78

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	845
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62583				



EQUIPMENT RACK ELEVATION
NOT TO SCALE



EAST SHELTER (R03) INTERCONNECTION DIAGRAM
NOT TO SCALE

ABBREVIATIONS
(B) BACKBONE
(D) DISTRIBUTION
HAR HIGHWAY ADVISORY RADIO

NOTES:
1. SEE SHEETS COMM-114 THRU COMM-117 FOR FIBER OPTIC CABLE PATCHING AND TERMINATION DETAILS.
2. ALL INSTALLED HARDWARE SHALL HAVE ENGRAVED NAMEPLATES WITH AN ATTACHMENT METHOD AND DESIGNATION APPROVED BY THE ENGINEER.

REVISIONS	
NAME	DATE
REVISION 1	12/17/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO I-57

EAST SHELTER (R03)
EQUIPMENT INTERCONNECT DETAILS

SCALE: NOT TO SCALE
DATE: October 29, 2004
DRAWN BY: DHI
CHECKED BY: JEZ

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CHICAGO, IL 60606
PHONE: (312) 251-3000
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COMM-79

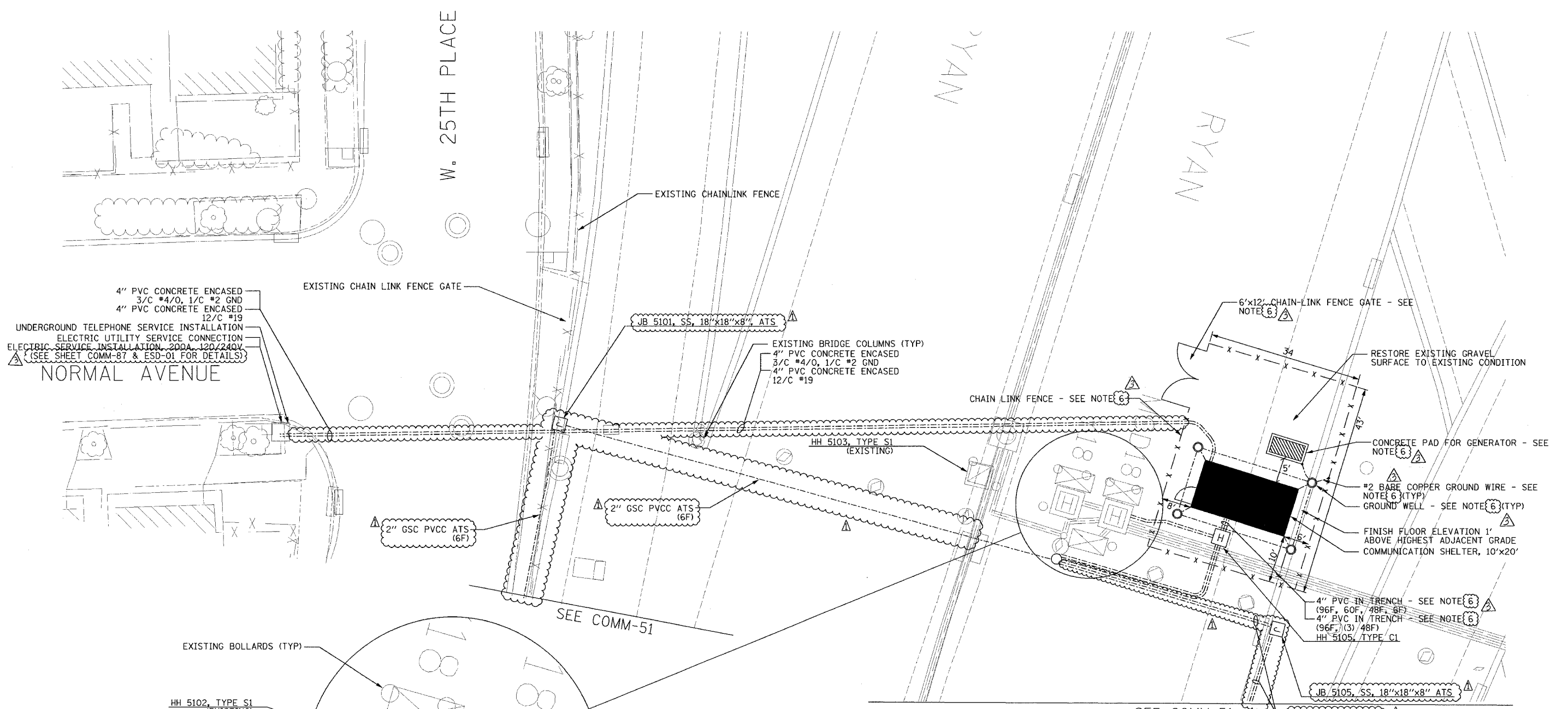
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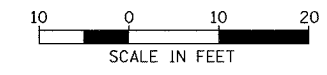
SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	851
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			



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- NOTES:**
- UNLESS OTHERWISE NOTED, ALL NOTED CONDUIT AND CABLE TO BE INSTALLED UNDER THIS CONTRACT.
 - SHELTER INSTALLED AT GRADE UNDERNEATH EXISTING DAN RYAN BRIDGE STRUCTURE.
 - FOR SHELTER FENCE AND GROUND DETAILS, SEE SHEET COMM-93 AND COMM-94.
 - FOR SHELTER FOUNDATION AND CONDUIT ENTRANCE DETAILS, SEE SHEET COMM-91 AND COMM-92.
 - FOR SHELTER EQUIPMENT AND ELECTRICAL LAYOUT DETAILS, SEE SHEET COMM-86.
 - WORK/MATERIALS PAID FOR AS PART OF SHELTER.
 - CONDUIT TO BE INSTALLED ATTACHED TO EXISTING BRIDGE PIER WITH A MINIMUM BENDING RADIUS OF 24" AT EITHER END. SEE DETAIL ME-07C FOR CLAMP DETAIL.
 - SEE SHEET DT-52 FOR ATTACHED CONDUIT AND JUNCTION BOX INSTALLATION DETAILS.
 - PAVEMENT AND SIDEWALK REPLACEMENT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE CONCRETE ENCASED CONDUIT INSTALLATION.
 - ALL WORK ASSOCIATED WITH THE INSTALLATION OF THE SHELTER UTILITY SERVICE FEED MUST BE COORDINATED WITH AND APPROVED BY COMED.
 - ALL MATERIALS AND LABOR FOR THE INSTALLATION OF THE CONCRETE ENCASED DUCTBANK FOR UTILITY SERVICE FEED MUST MEET ALL COMED REQUIREMENTS AND STANDARDS.



COMM-85

REVISIONS	
NAME	DATE
REVISION 1	12/17/04
REVISION	2/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57
 I-55 SHELTER (R01)
 SITE PLAN

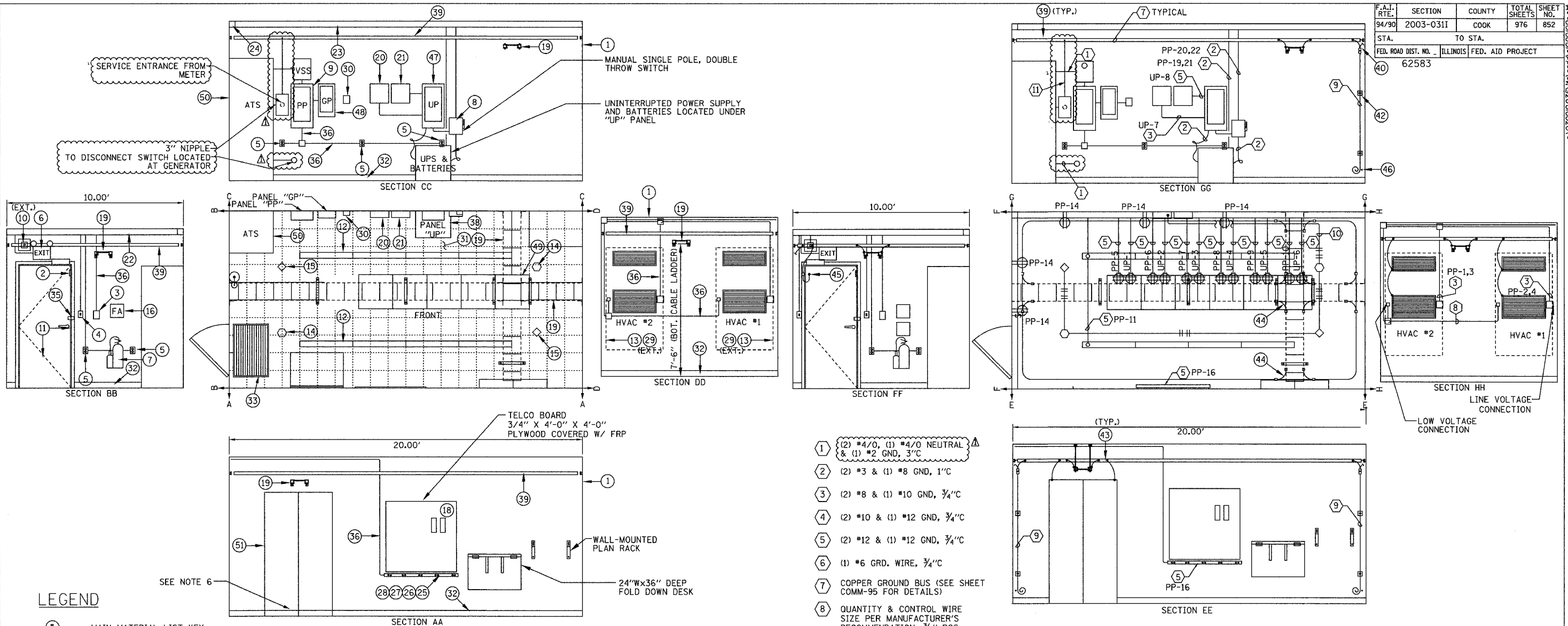
SCALE: 1"=10'
 DATE: October 29, 2004

DRAWN BY: DHI
 CHECKED BY: MJL

Edwards AND Kelcey
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 CHICAGO, IL 60606
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	852
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62583				



EQUIPMENT LAYOUT
NOT TO SCALE

ELECTRICAL LAYOUT
NOT TO SCALE

LEGEND

- ⊙ MAIN MATERIAL LIST KEY
- ⊕ ELECETRICAL NOTES KEY
- ◇ PHOTOELECTRIC DETECTOR
- IONIZATION DETECTOR
- ⊠ JUNCTION BOX
- ⊥ LIGHT SWITCH
- ⊕ QUAD RECEPTACLE
- ⊕ DUPLEX RECEPTACLE
- FLUORESCENT LIGHT FIXTURE
- CABLE TRAY
- COMMUNICATION EQUIPMENT RACK

- ① (2) #4/0, (1) #4/0 NEUTRAL & (1) #2 GND, 3" C
- ② (2) #3 & (1) #8 GND, 1" C
- ③ (2) #8 & (1) #10 GND, 3/4" C
- ④ (2) #10 & (1) #12 GND, 3/4" C
- ⑤ (2) #12 & (1) #12 GND, 3/4" C
- ⑥ (1) #6 GRD. WIRE, 3/4" C
- ⑦ COPPER GROUND BUS (SEE SHEET COMM-95 FOR DETAILS)
- ⑧ QUANTITY & CONTROL WIRE SIZE PER MANUFACTURER'S RECOMMENDATION, 3/4" RGS
- ⑨ (1) #8 BARE COPPER GROUND
- ⑩ (2) #22 AWG TWISTED PAIR, 3/4" C
- ⑪ (1) #2 GROUND, 1" C

NOTES:

1. CONDUIT AND WIRING IS SHOWN DIAGRAMATIC. ACTUAL LOCATION OF EQUIPMENT AND HARDWARE SHALL BE SHOWN IN SHOP DRAWINGS AND SHALL BE APPROVED BY THE ENGINEER.
2. CONTRACTOR SHALL MAINTAIN MINIMUM 36" CLEARANCE WHEN INSTALLING EQUIPMENT RACKS AND EQUIPMENT.
3. ALL CABLE TRAY AND EQUIPMENT SHALL HAVE GROUND WIRE INSTALLED SIZED AS PER ELECTRICAL CODE REQUIREMENTS.
4. SEE SHEETS COMM-121 THRU COMM-126 FOR FIBER OPTIC CABLE PATCHING AND TERMINATION DETAILS.
5. ROUTE ALARM CABLE FROM ALARM OUTPUT DEVICES TO ALARM INPUT PANEL VIA CABLE TRAY. SEE SHEET COMM-88 FOR NUMBER AND TYPE OF ALARM INPUTS.
6. COORDINATE CONDUIT ENTRANCE LOCATIONS AS DETAILED PER SHELTER SITE PLAN COMM-85.
7. SEE COMMUNICATION DRAWINGS SHEET COMM-90 FOR EQUIPMENT RACK LAYOUT.

ITEM	DESCRIPTION
1	PREFABRICATED 10' W x 12' L x 9' H (INTERIOR DIMENSION) CONCRETE EQUIPMENT SHELTER
2	DOOR INTRUSION SENSOR
3	DUAL HVAC UNIT CONTROLLER
4	SINGLE POLE LIGHT SWITCH
5	DUPLEX RECEPTACLE
6	COMBINED EMERGENCY LIGHT W/ BATTERY BACKUP
7	10 LB. CARBON DIOXIDE FIRE EXTINGUISHER, WALL MOUNTED
8	TWO POLE, DOUBLE THROW DISCONNECT SWITCH, 240 VAC, NEMA 1 ENCLOSURE
9	NORMAL POWER PANEL "PP", 120/240 VAC, 3W, 225 AMP PANEL
10	35W HIGH PRESSURE SODIUM, VANDAL RESISTANT EXTERIOR MOUNTED FLOODLIGHT, WITH PHOTOCELL
11	36" x 80" INSULATED HOLLOW METAL CORE DOOR AND FRAME
12	FLUORESCENT LIGHT, 2 LAMPS 30 WATTS EACH, 120 VOLT
13	AIR CONDITIONING UNIT W/ GRILLS
14	CETILING MOUNTED SMOKE DETECTOR (IONIZATION TYPE)
15	CETILING MOUNTED SMOKE DETECTOR (PHOTOELECTRIC TYPE)
16	FIRST AID KIT
17	(NOT USED)
18	85 ALARM BLOCKS, MODULE 50M - 1500W W/ 2 R66M 50 BLOCKS AND BLOCK COVERS
19	12" CABLE TRAY (SEE SHEET COMM-95 FOR DETAILS)
20	FIRE ALARM PANEL
21	ALARM I/O MODULE
22	4" x 4" x 10" WIREWAY
23	4" x 4" x 20" WIREWAY
24	4" x R" CORNER PIECE
25	6" RECEPTACLE STRIP W/ OUTLETS EVERY 1'
26	CONDUIT ADAPTER

ITEM	DESCRIPTION
27	ELBOW ADAPTER
28	END CAP
29	VANDAL PROOF CAGE FOR HVAC
30	REMOTE ANNUNCIATOR MODULE (PRE-PURCHASED)
31	FLOOR TILES - 1/2" x 12" x 12" COMMERCIAL TILE
32	BASE FINISH, 4" BLACK BASE COVER MOLD 10' x 12' SHELTER
33	24" x 36" RUBBER MAT
34	INSULATION MATERIAL FOR 10' x 20' x 9' FIRE RESISTANT R-19
35	1/2" x 2" x 2" ANGLE PLATES AT EXTERIOR DOOR AND WALL FOR VANDAL PROOF LOCK
36	3/2" CONDUIT
37	1/2" CONDUIT
38	UPS SYSTEM, 10KVA, 240 VAC INPUT, 120 VOLT, 10 OUTPUT (TO PAID FOR AS PART OF SHELTER)
39	INTERIOR COPPER GROUND BUS BAR (SEE SHEET COMM-95 FOR DETAILS)
40	INTERIOR GROUND SYSTEM - GROUND LEAD TO EXTERIOR GROUND SYSTEM
41	INTERIOR GROUND SYSTEM - NON-DIRECTIONAL SPLICE
42	INTERIOR GROUND SYSTEM - GROUND WALL SUPPORT
43	INTERIOR GROUND SYSTEM - GROUND BUS GROUND TAP
44	INTERIOR GROUND SYSTEM - CABLE LADDER BOND
45	INTERIOR GROUND SYSTEM - DOOR BONDING STRIP
46	INTERIOR GROUND SYSTEM - PVC 45° NIPPLE
47	UPS PANEL "UP", 120/240VAC, 2W, 100 AMP PANEL
48	STANDBY GENERAL PANEL "GP"
49	EQUIPMENT RACK (PAID FOR AS PART OF CCTV DISTRIBUTION SUBSYSTEM)
50	AUTOMATIC TRANSFER SWITCH (ATS)
51	WALL MOUNTED FIBER OPTIC TERMINATION PANEL

REVISIONS	
NAME	DATE
REVISION 1	12/17/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57

I-55 SHELTER (R01)
 EQUIPMENT AND ELECTRICAL LAYOUT

SCALE: NOT TO SCALE
 DATE: October 29, 2004

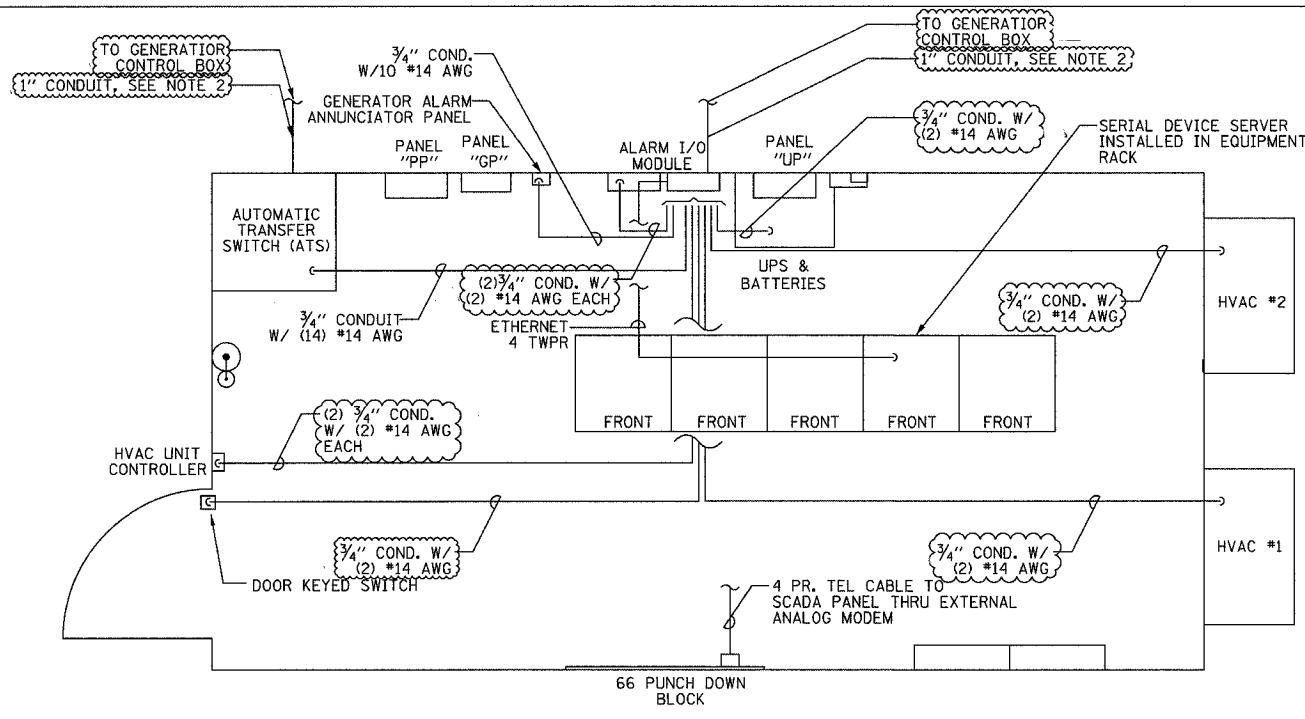
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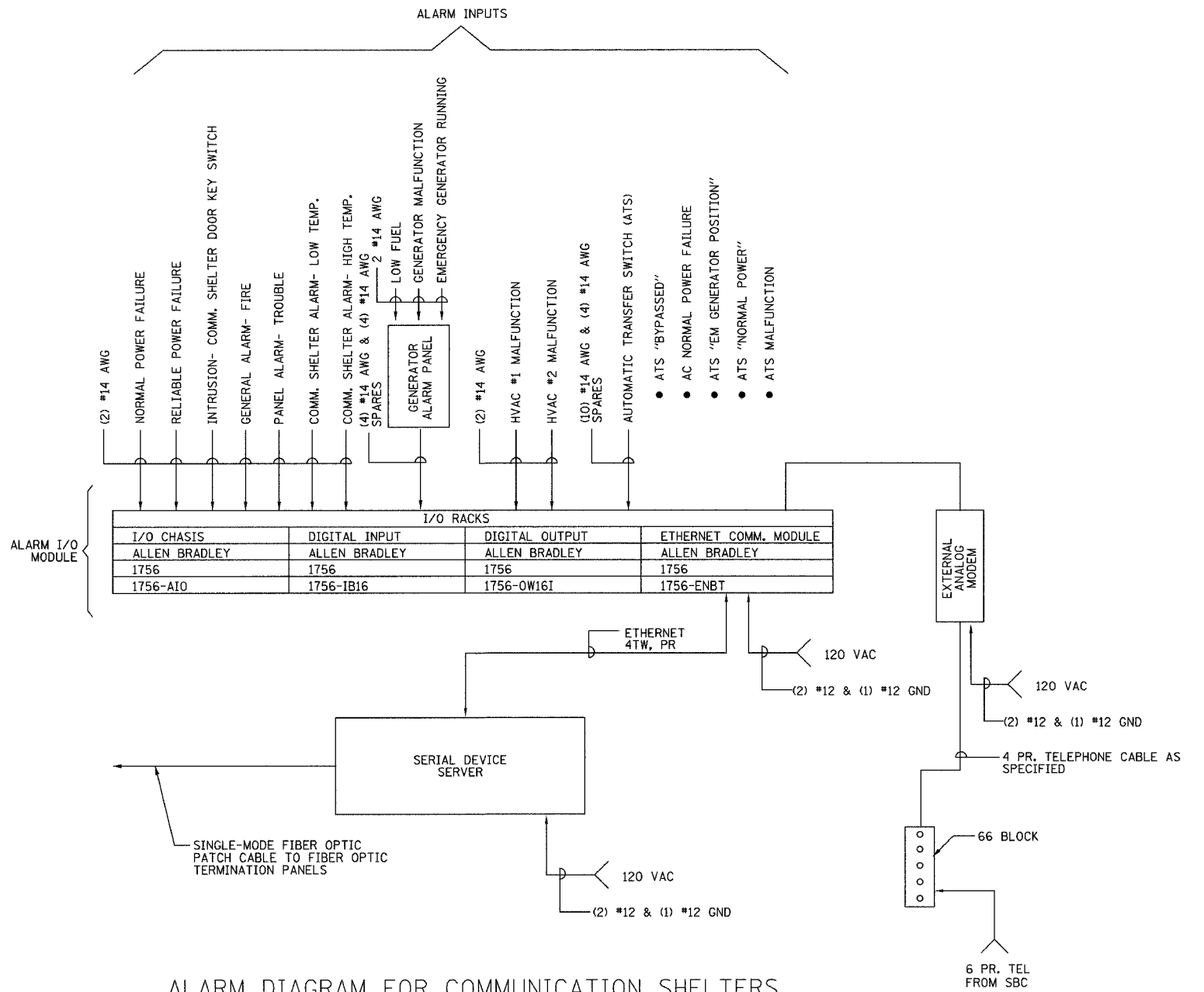
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	854
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62583				



ALARM WIRING LAYOUT
NOT TO SCALE

- NOTES:
1. ALL ALARM WIRE INSULATION SHALL BE THWN UNLESS NOTED OTHERWISE.
 2. QUANTITY OF ALARM & CONTROL WIRE SIZE PER MANUFACTURER'S RECOMMENDATION.



ALARM DIAGRAM FOR COMMUNICATION SHELTERS
NOT TO SCALE

COMM-88

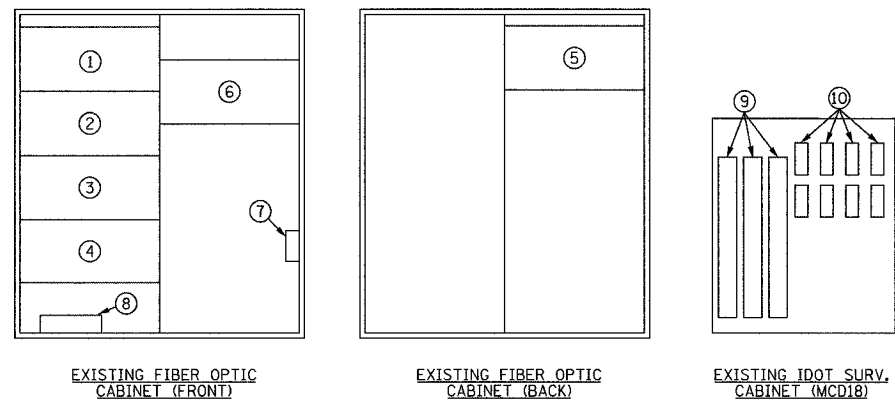
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REVISION 1	12/17/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57
I-55 SHELTER (R01)
ALARM SCHEMATIC
SCALE: NOT TO SCALE
DATE: October 29, 2004
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	855
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
	62583			



- EQUIPMENT IDENTIFICATION KEY**
- ① 48 FIBER TERMINATION PANEL (TO HALSTED FIBER HUT, FIBERS 1-48)
 - ② 48 FIBER TERMINATION PANEL (TO HALSTED FIBER HUT, FIBERS 49-96)
 - ③ 48 FIBER TERMINATION PANEL (TO MW HUT, FIBERS 1-48)
 - ④ 48 FIBER TERMINATION PANEL (TO STEVENSON, FIBERS 1-48)
 - ⑤ 48 FIBER TERMINATION PANEL (TO MLK DRIVE, FIBERS 1-48)
 - ⑥ T1 MULTIPLEXER/CHANNEL BANK
 - ⑦ FIBER OPTIC/T1 MEDIA CONVERTER
 - ⑧ FIBER OPTIC SPLICE CLOSURE
 - ⑨ TYPE-66 PUNCH DOWN BLOCK (TYP)
 - ⑩ TERMINATION BLOCKS (TYP)

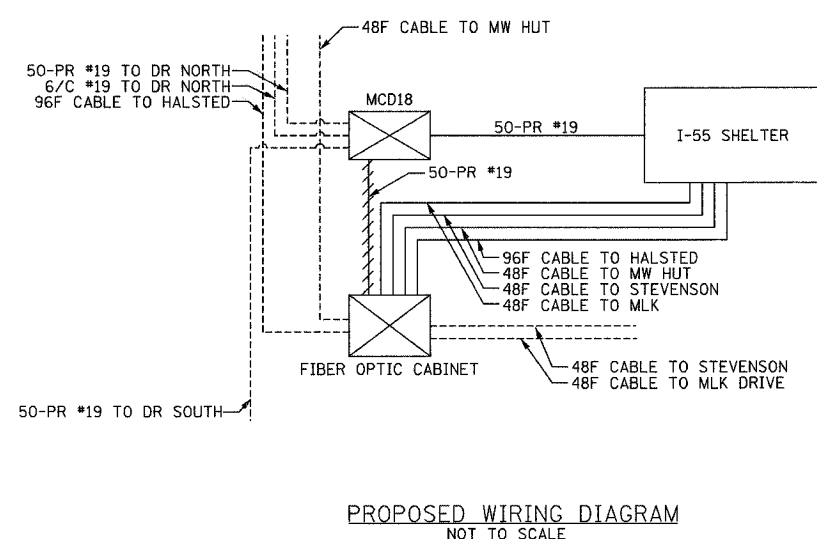
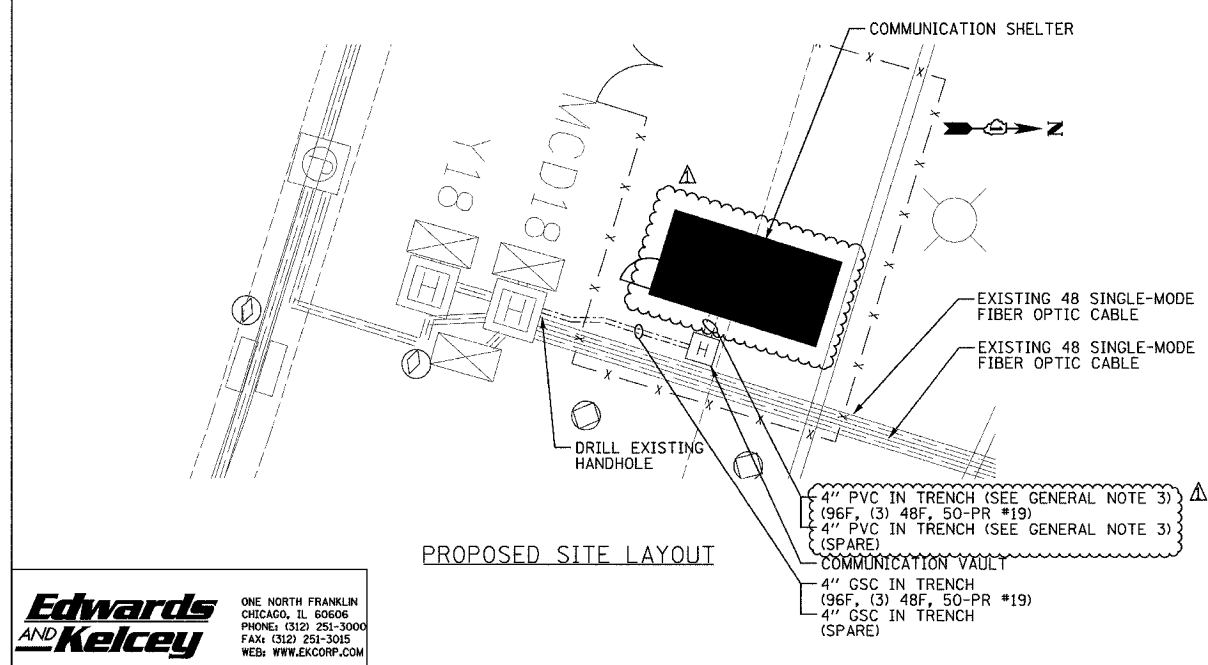
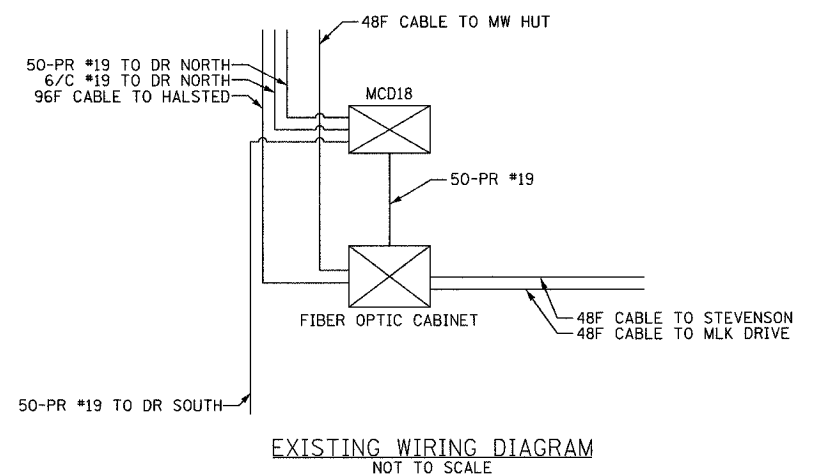
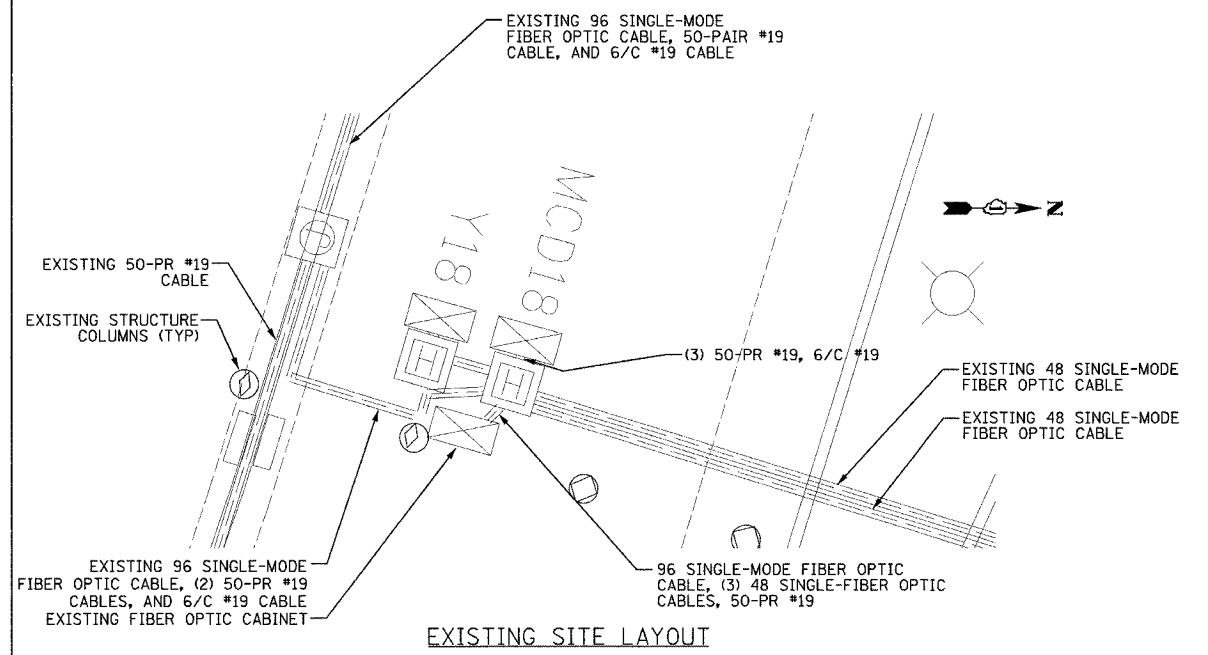
- SYMBOLS**
- ⚡ CABLE TO BE REMOVED
- ABBREVIATIONS**
- DR DAN RYAN
 - MLK MARTIN LUTHER KING
 - MW MICROWAVE
 - PR PAIR

- GENERAL NOTES**
1. SEE SHEET COMM-85 FOR I-55/I-94 COMMUNICATION SHELTER SITE LAYOUT.
 2. THIS SHEET DETAILS ONLY THE CUTOVER STAGING PLANS FOR THE I-55/DAN RYAN COMMUNICATION SHELTER. SEE COMMUNICATION AND CCTV SHEETS FOR ALL EQUIPMENT, CONDUIT, AND CABLE INSTALLATION AT THE SHELTER.

- CONSTRUCTION PHASING:**
1. THE SEQUENCES OF WORK DO NOT IDENTIFY EVERY DETAIL OF THE WORK TO BE DONE NOR DO THEY DEFINE THE METHODS AND MATERIALS TO BE USED, EXCEPT AS EXPLICITLY REQUIRED BY IDOT OR OTHER AGENCIES HAVING JURISDICTION.
 2. WORK THAT IMPACTS THE NORMAL OPERATION OF THE TRAFFIC MANAGEMENT OR COMMUNICATIONS SYSTEMS SHALL ONLY BE EXECUTED ON WEEKENDS FROM 10 PM FRIDAY EVENING TO 4 AM MONDAY MORNING. HOLIDAY AND SPECIAL EVENT WEEKENDS WILL BE EXCLUDED. THE CONTRACTOR SHALL COORDINATE AND RECEIVE PRIOR APPROVAL FROM THE ENGINEER FOR ALL WORK THAT COULD DEGRADE OR IMPAIR THE OPERATIONAL SYSTEMS. REQUESTS FOR APPROVAL SHALL BE MADE TO THE ENGINEER A MINIMUM OF 72 HOURS PRIOR TO THE ACTUAL COMMENCEMENT OF WORK.

- SEQUENCE OF WORK - PRELIMINARY**
1. THE CONTRACTOR SHALL INSTALL THE I-55/DAN RYAN COMMUNICATION SHELTER PER THE PLANS AND SPECIAL PROVISIONS INCLUDING ALL THE UNDERGROUND CONDUIT, HANDHOLES, COMMUNICATION VAULTS, AND ELECTRIC SERVICE. SEE SHEETS COMM-85 THRU COMM-90 FOR DETAILS.
 2. DRILL EXISTING HAND HOLE AS IDENTIFIED ON THE PLANS. INSTALL TWO (2) 4" GSC CONDUITS IN TRENCH BETWEEN DRILLED HAND HOLE AND NEW COMMUNICATION VAULT AS SHOWN ON THE PLANS.
 3. INSTALL THE WALL MOUNTED FIBER OPTIC TERMINATION PANELS IN THE COMMUNICATION SHELTER AS IDENTIFIED ON SHEET COMM-86.
 4. INSTALL ONE (1) 96 SINGLE-MODE FIBER OPTIC CABLE AND THREE (3) 48 SINGLE-MODE FIBER OPTIC CABLES FROM THE SHELTER TO THE EXISTING FIBER OPTIC CABINET. TERMINATE THE FIBER OPTIC CABLES IN THE SHELTER ON THE WALL MOUNTED TERMINAL PANELS.
 5. PREPARE EQUIPMENT RACK SPACE IN THE SHELTER FOR THE EXISTING T1 MULTIPLEXER/CHANNEL BANK AND EXISTING T1/FIBER OPTIC MEDIA CONVERTER. SEE SHEET COMM-86 AND COMM-90 FOR PROPOSED SHELTER EQUIPMENT LAYOUT.
 6. INSTALL ONE (1) 50-PAIR COPPER TWISTED CABLE FROM EXISTING IDOT CABINET MCD18 TO THE SHELTER EQUIPMENT RACK SPACE IDENTIFIED IN STEP PRELIM-5.

- SEQUENCE OF WORK - CUTOVER**
1. DISCONNECT THE EQUIPMENT FROM THE POWER IN FIBER OPTIC CABINET AND MCD18 CABINET.
 2. DISCONNECT EXISTING FIBER OPTIC CABLES IN FIBER OPTIC CABINET FROM EXISTING TERMINATION PANELS. SPLICE NEW FIBER OPTIC CABLES IDENTIFIED IN STEP PRELIM-4 TO EXISTING FIBER OPTIC CABLES IN FIBER OPTIC CABINET USING FIBER OPTIC SPLICE CLOSURE AS IDENTIFIED IN THE SPECIAL PROVISIONS.
 3. MOVE EXISTING T1 MULTIPLEXER/CHANNEL BANK AND T1/FIBER OPTIC MEDIA CONVERTER FROM FIBER OPTIC CABINET TO SHELTER EQUIPMENT RACK IDENTIFIED IN STEP PRELIM-5. DOCUMENT THE FIBERS USED BY THE T1/FIBER OPTIC MEDIA CONVERTER PRIOR TO DISCONNECTING THE FIBER FROM THE EQUIPMENT.
 4. INSTALL FIBER OPTIC PATCH CABLES FROM WALL MOUNTED TERMINATION PANEL TO T1/FIBER OPTIC MEDIA CONVERTER CONNECTING THE EQUIPMENT TO THE SAME FIBERS IDENTIFIED IN STEP CUTOVER-3.
 5. REMOVE EXISTING 50-PAIR #19 CABLE BETWEEN FIBER OPTIC CABINET AND CABINET MCD18. DOCUMENT THE EXISTING TWISTED PAIR CONNECTIONS.
 6. CONNECT 50-PAIR CABLE, AS IDENTIFIED IN STEP PRELIM-6, TO THE PUNCH DOWN BLOCKS IN CABINET MCD18, AS NOTED IN STEP CUTOVER-5.
 7. CONNECT 50-PAIR CABLE, IDENTIFIED IN STEP PRELIM-6, TO THE T1 MULTIPLEXER/CHANNEL BANK IN THE SHELTER EQUIPMENT RACK.
 8. CONNECT T1 MULTIPLEXER/CHANNEL BANK TO T1/FIBER OPTIC MEDIA CONVERTER.
 9. APPLY POWER TO THE EQUIPMENT IDENTIFIED IN STEP CUTOVER-3.
 10. RESTORE POWER TO FIBER OPTIC CABINET AND CABINET MCD18.



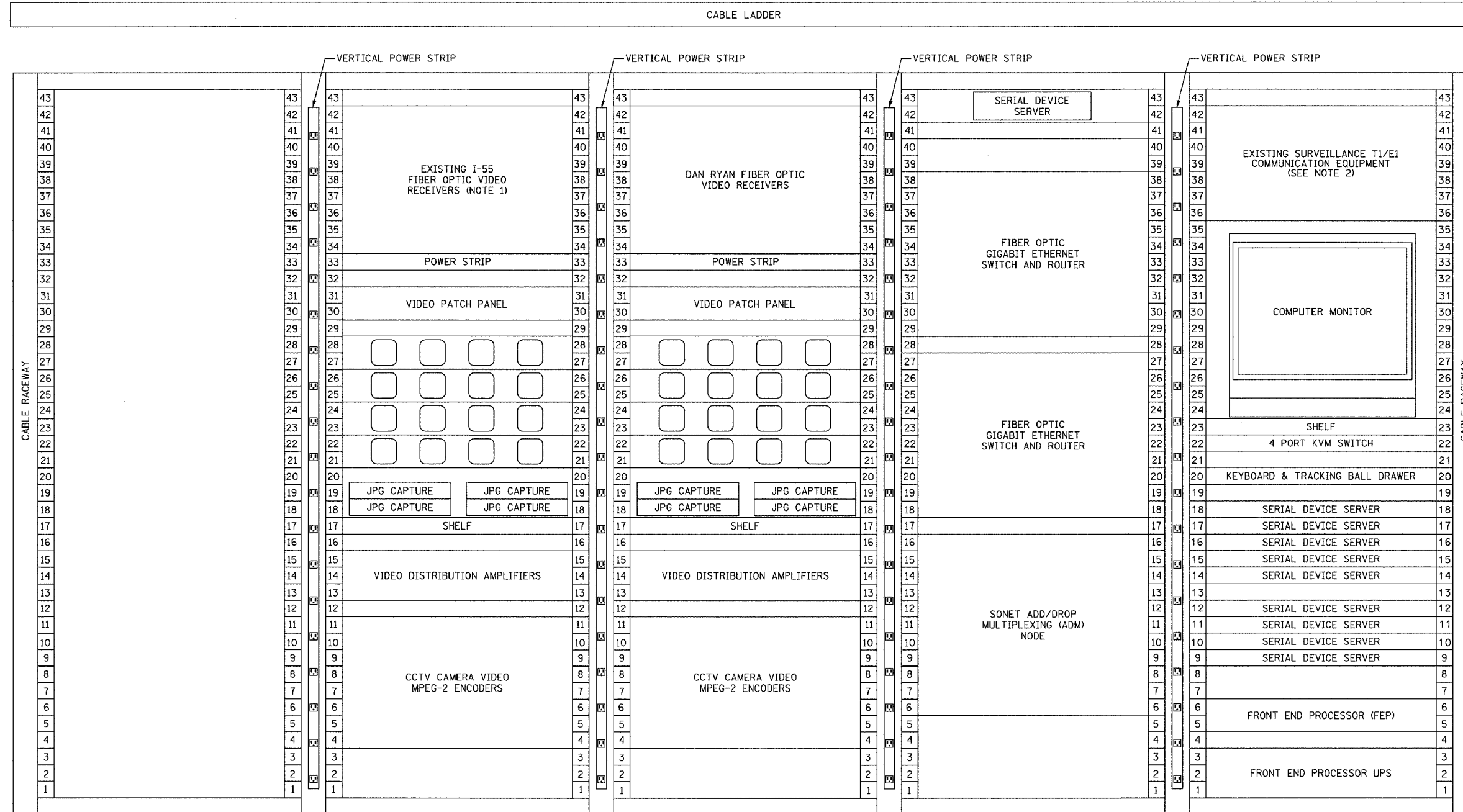
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REVISION 1	12/17/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET TO I-57
 I-55 SHELTER (R01)
 CUTOVER STAGING PLAN
 SCALE: NOT TO SCALE
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: JEZ

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	856
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62583				



EQUIPMENT RACK ELEVATION
NOT TO SCALE

- ABBREVIATIONS**
- (B) BACKBONE
 - (D) DISTRIBUTION
 - CCTV CLOSED CIRCUIT TELEVISION
 - KVM KEYBOARD/VIDEO/MOUSE

- NOTES:**
1. EXISTING EQUIPMENT RELOCATED FROM THE TRAFFIC SYSTEM CENTER (TSC).
 2. EXISTING EQUIPMENT RELOCATED FROM IDOT FIBER OPTIC CABINET. SEE SHEET COMM-89 FOR DETAILS.
 3. ALL INSTALLED HARDWARE SHALL HAVE ENGRAVED NAMEPLATES WITH AN ATTACHMENT METHOD AND DESIGNATION APPROVED BY THE ENGINEER.

REVISIONS	
NAME	DATE
REVISION 1	12/17/04

COMM-90

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO I-57

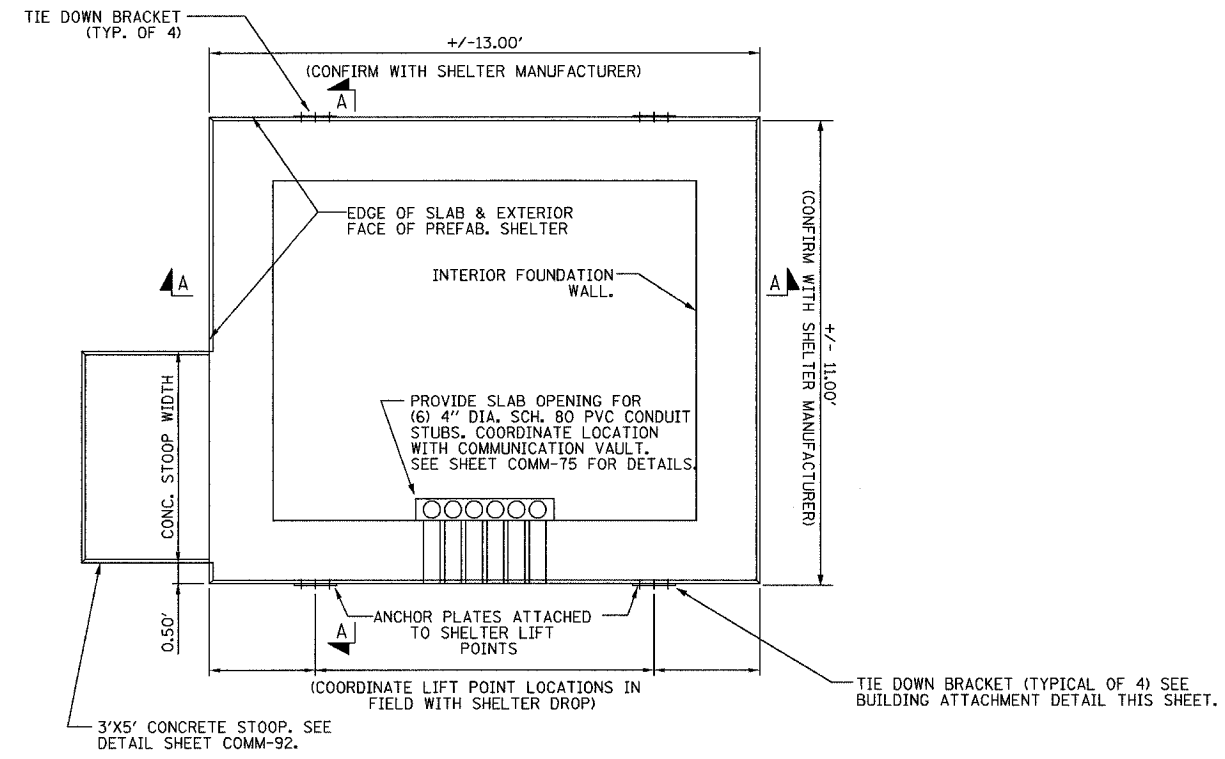
I-55 SHELTER (R01)
EQUIPMENT RACK ELEVATION

SCALE: NOT TO SCALE DRAWN BY: DHI
DATE: October 29, 2004 CHECKED BY: JEZ

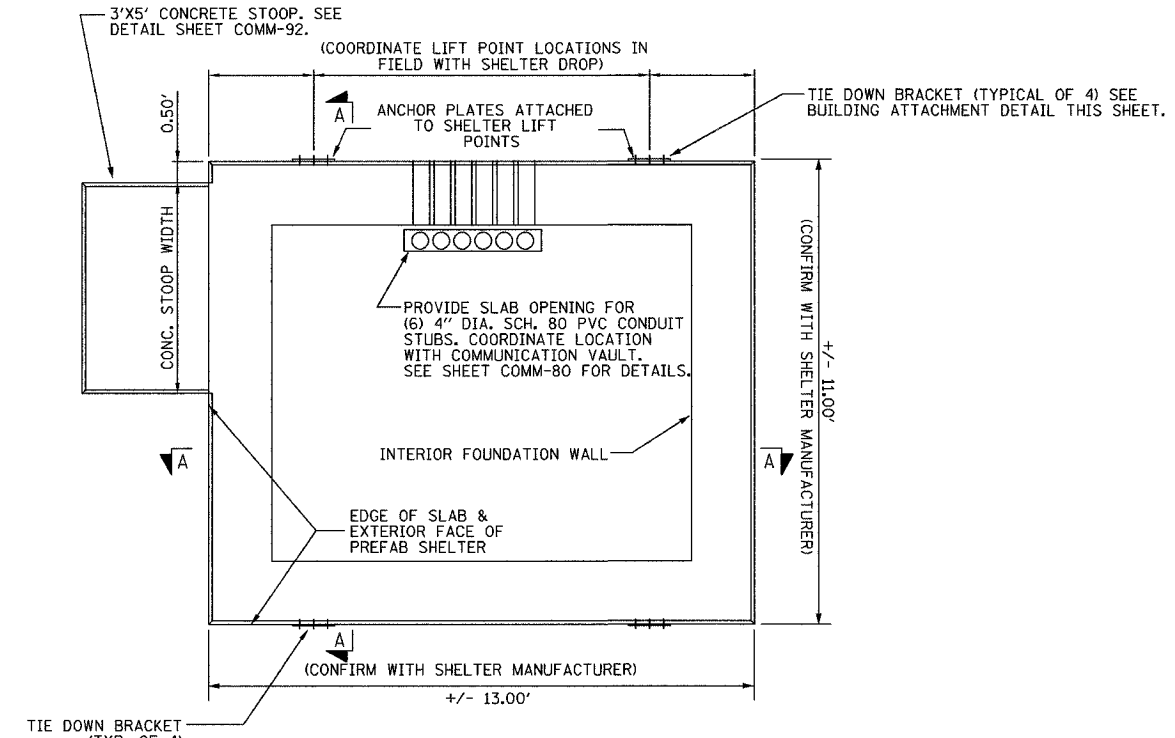


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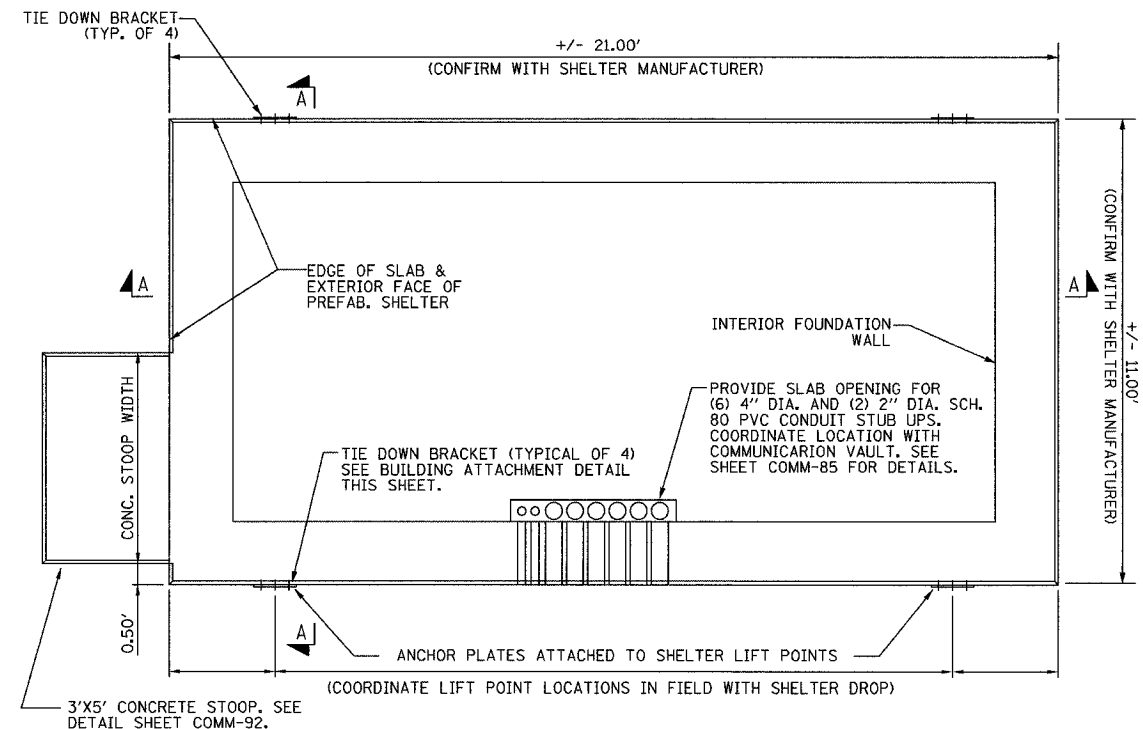
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
	62583			



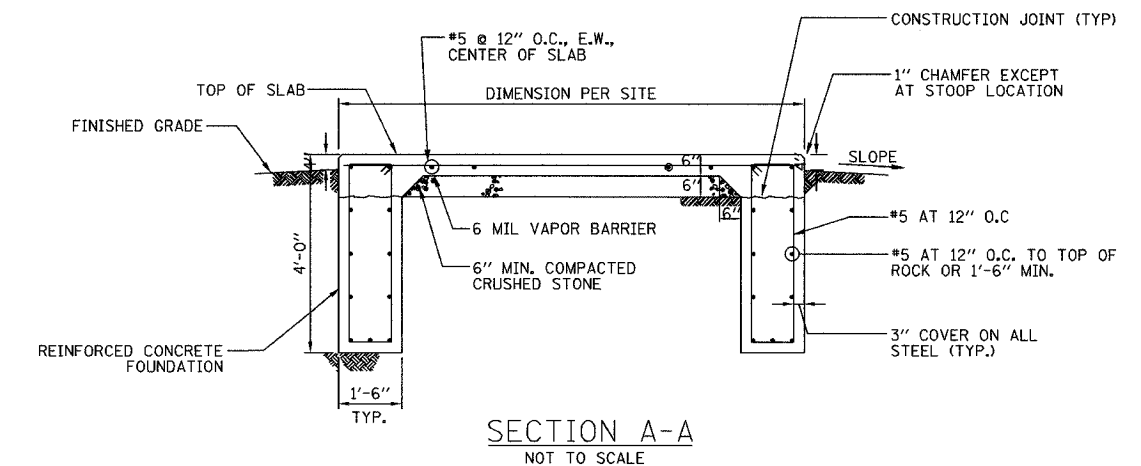
EAST SKYWAY SHELTER (R03) FOUNDATION PLAN
NOT TO SCALE



MAINTENANCE YARD SHELTER (R02) FOUNDATION PLAN
NOT TO SCALE



I-55 SHELTER (R01) FOUNDATION PLAN
NOT TO SCALE



SECTION A-A
NOT TO SCALE

- NOTES:
- CONTRACTOR SHALL DEBURR ALL SHARP EDGES AND HOLES.
 - SURFACING OF FINISHED SLAB SHALL BE LEVEL & FLAT WITHIN $\pm 1/4"$.
 - CONTRACTOR SHALL COORDINATE THE INSTALLATION OF SHELTER ON TO ITS FOUNDATION WITH THE SHELTER FABRICATOR.
 - ALL REINFORCING BARS SHALL BE EPOXY COATED AND SHALL BE WIRE LASHED AT ALL INTERSECTIONS.
 - IF ROCK IS ENCOUNTERED, CONTRACTOR SHALL CONTACT ENGINEER IMMEDIATELY. DO NOT PROCEED UNTIL ENGINEER ISSUES REVISED FOUNDATION DESIGN BASED ON SUBSURFACE CONDITIONS.
 - COORDINATE CONDUIT ENTRY LOCATION WITH ENGINEER PER SITE PLAN DETAIL SHEET AND COMMUNICATION SHELTER FOUNDATION.

REVISIONS	
NAME	DATE

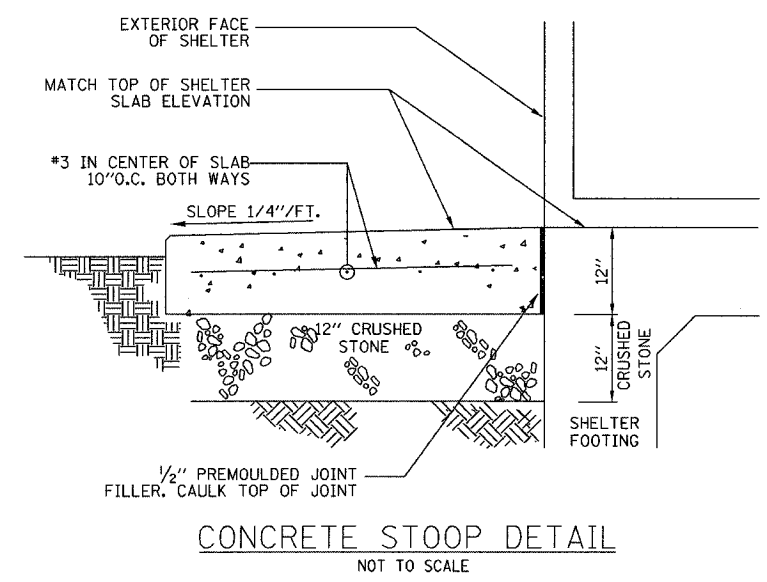
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F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO I-57
SHELTER FOUNDATION DETAILS
(SHEET 1 OF 2)

SCALE: NOT TO SCALE
DATE: October 29, 2004
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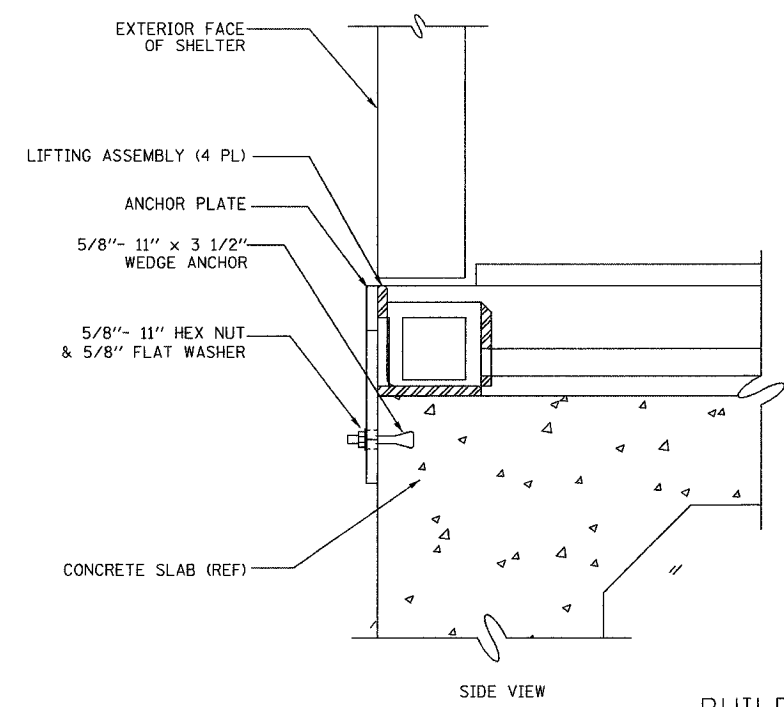
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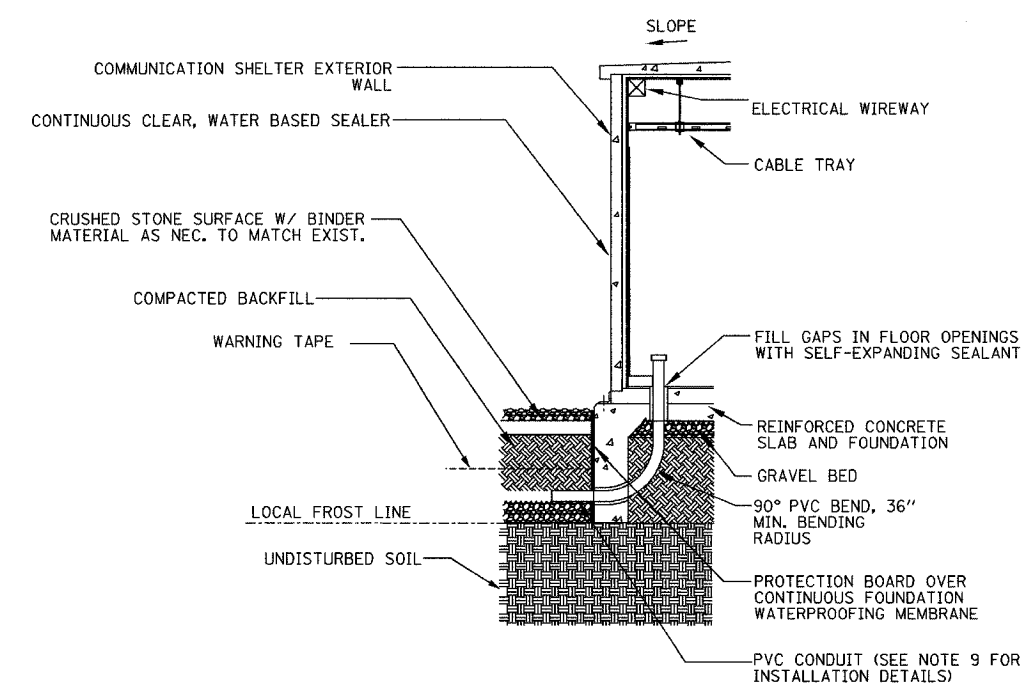
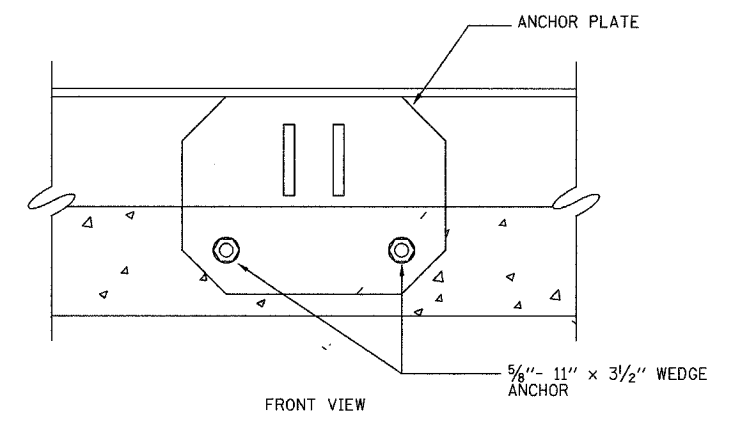
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-031I	COOK	976	858
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
62583				



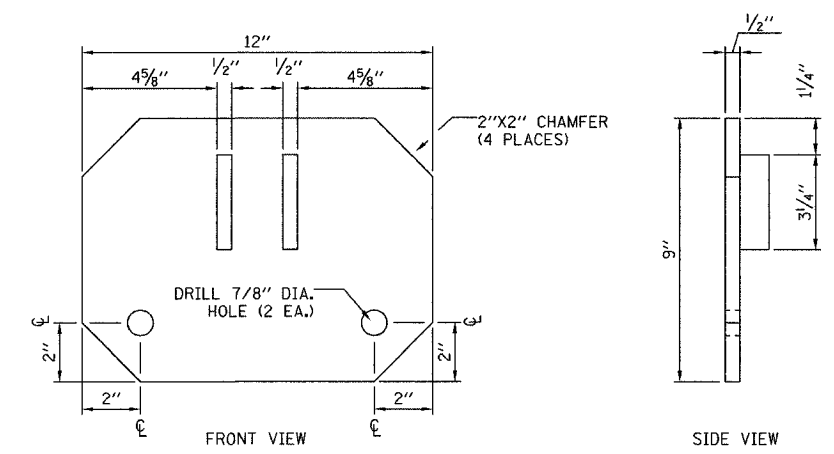
CONCRETE STOOP DETAIL
NOT TO SCALE



BUILDING ATTACHMENT DETAIL
NOT TO SCALE



CONDUIT ENTRANCE DETAIL
NOT TO SCALE



ANCHOR PLATE DETAIL
NOT TO SCALE

- NOTES:**
1. FOR ANCHOR PLATES, USE 1/2" THICK A36 STEEL.
 2. FINISH: ZINC HOT-DIP GALVANIZED PER ASTM A123.
 3. DEBURR ALL SHARP EDGES AND HOLES.
 4. ANCHOR PLATES PROVIDED BY SHELTER MANUFACTURER.
 5. SURFACING OF FINISHED SLAB SHALL BE LEVEL & FLAT WITHIN +1/4".
 6. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF SHELTER ON TO ITS FOUNDATION WITH THE SHELTER FABRICATOR, MAKE ALL CONNECTIONS NECESSARY & INSTALL EQUIPMENT AS INDICATED.
 7. IF ROCK IS ENCOUNTERED, CONTACT ENGINEER IMMEDIATELY. DO NOT PROCEED UNTIL ENGINEER ISSUES REVISED FOUNDATION DESIGN BASED ON SUBSURFACE CONDITIONS.
 8. COORDINATE CONDUIT ENTRY LOCATION WITH ENGINEER PER SITE PLAN DETAIL SHEET AND COMMUNICATION SHELTER FOUNDATION.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57
 SHELTER FOUNDATION DETAILS
 (SHEET 2 OF 2)

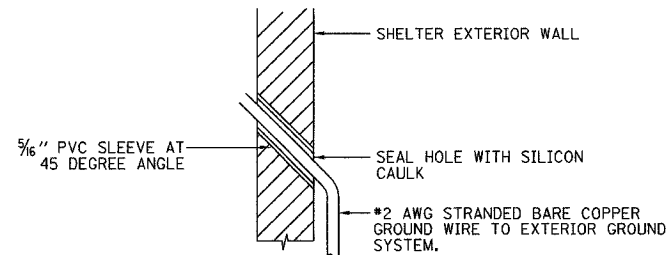
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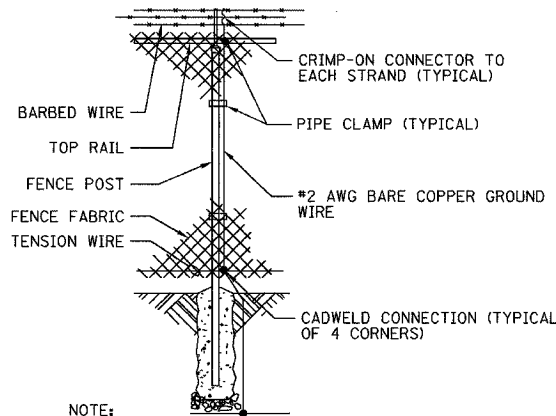
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	859
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62583				



WALL GROUND PENETRATION DETAIL
NOT TO SCALE



NOTE:
INSTALL BRAIDED STRAP AT FENCE GATES

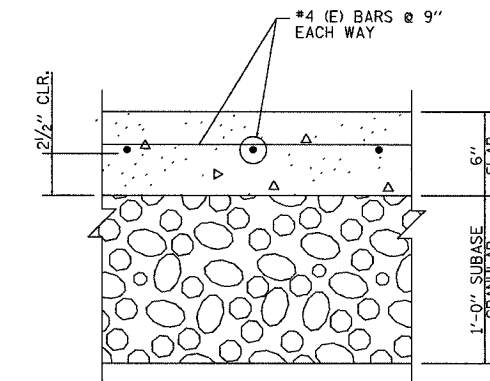
FENCE GROUNDING
NOT TO SCALE

NOTES:

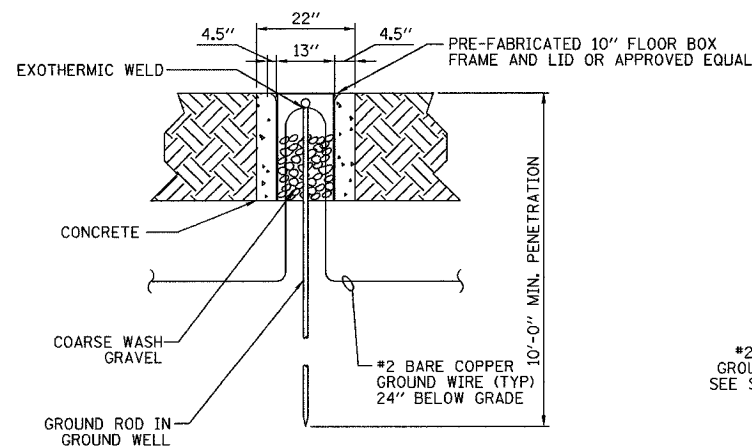
1. PROVIDE A COMPLETE AND CONTINUOUS GROUND SYSTEM IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.
2. BOND TO THE INTERIOR GROUND BUS ANY METAL OBJECTS PASSING OR CROSSING WITHIN ONE FOOT OF THE RING. ADDITIONAL GROUNDING IS SITE SPECIFIC AND SHALL BE SHOWN ON INTERIOR ELECTRICAL LAYOUT.
3. DETAIL SHOWS INSTALLATION IN UNPAVED AREA. WHEN INSTALLING IN A PAVED AREA INCORPORATE GROUND WELL IN THE POUR. (GROUND WELLS SHALL NOT BE INSTALLED IN VEHICULAR TRAFFIC AREAS)
4. GROUND WELLS ARE REQUIRED AT EVERY GROUND ROD.
5. WEIGHTS OF ALL FENCE PIPE MEMBERS SHALL MEET THE MINIMUM REQUIREMENTS OF A.S.A. SCHEDULE 40.
6. BARBED WIRE EXTENSION ARMS SHALL BE ANGLED FROM THE VERTICAL.
7. GATE JUMPER SHALL BE #4/0 AWG WELDING CABLE OR FLEXIBLE COPPER BRAIDE WITH SLEEVES ON EACH END FOR EXOTHERMIC WELDING.
8. GATE JUMPER SHALL BE INSTALLED SO THAT IT WILL NOT BE SUBJECTED TO DAMAGING STRAIN WHEN GATE IS FULLY OPEN IN EITHER DIRECTION.

GROUND WIRE SIZES			
DESCRIPTION	WIRE	INSULATION/ COATING	SOLID OR STRANDED
EXTERIOR RING AND BELOW GROUND CONNECTIONS	#2	BARE	STRANDED
AC SERVICE GRND.	#2	INSULATED	STRANDED
ALL BONDING JUMPERS	#2	INSULATED	STRANDED

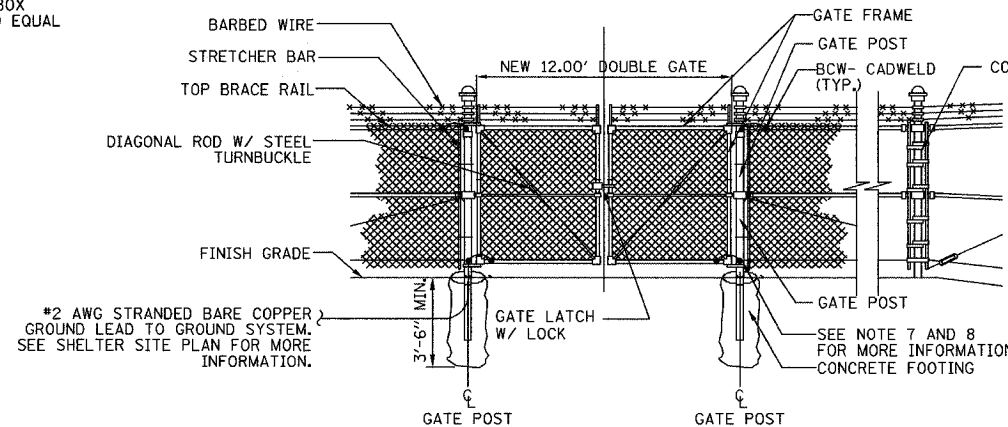
INSULATION WHERE SPECIFIED SHALL BE THWN, COLOR CODED GREEN



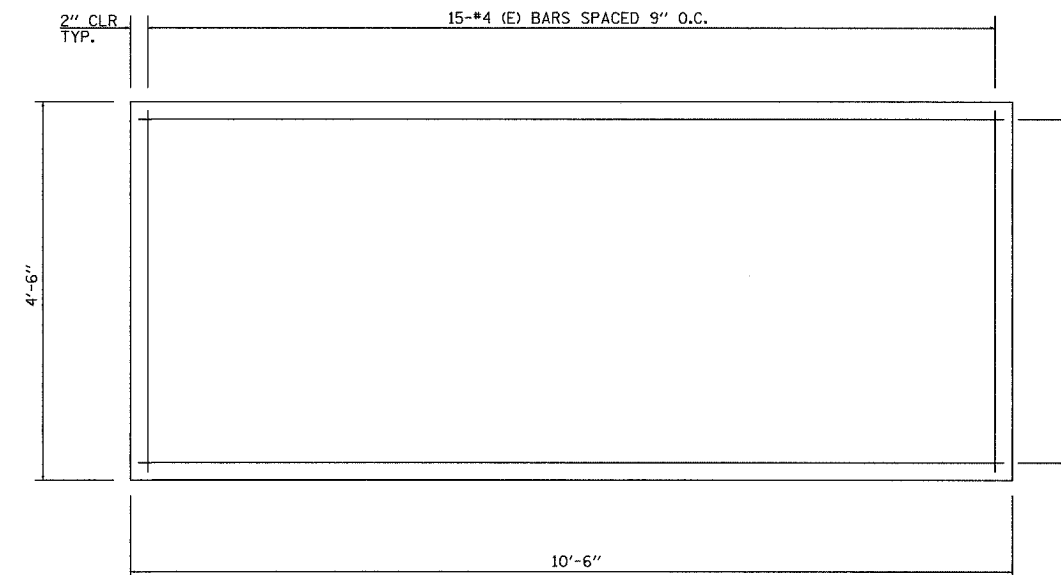
TYPICAL GENERATOR CONCRETE PAD SECTION



GROUND WELL DETAIL
NOT TO SCALE

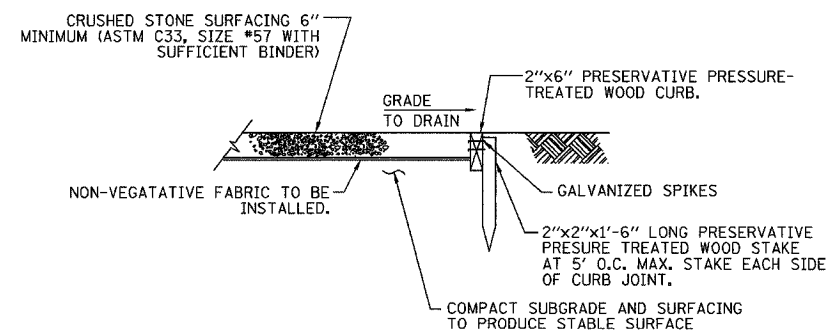


CHAIN LINK FENCE
NOT TO SCALE

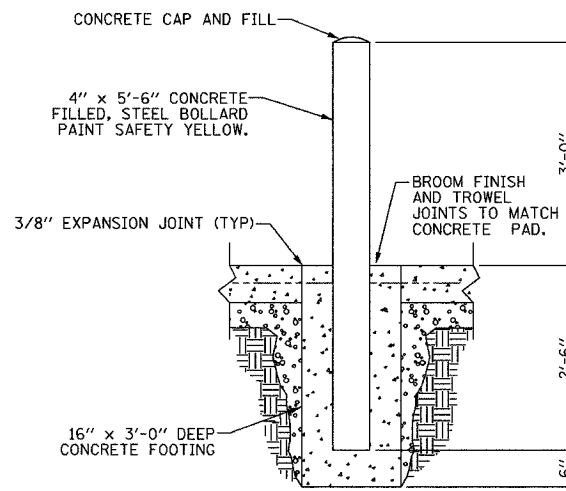


GENERATOR CONCRETE PAD PLAN

f_c = 3500 psi
ALL BARS DESIGNATED "(E)" SHALL BE EPOXY COATED



WEED BARRIER DETAIL
NOT TO SCALE



CONCRETE BOLLARD DETAIL
NOT TO SCALE

Edwards AND Kelcey
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CHICAGO, IL 60606
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57

SHELTER DETAILS
(SHEET 1 OF 2)

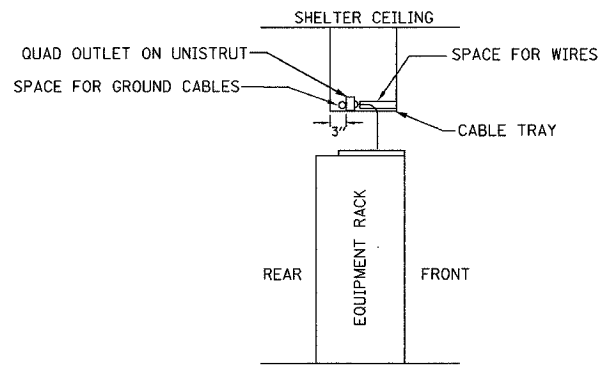
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DATE: October 29, 2004

DRAWN BY: JM
CHECKED BY: CS

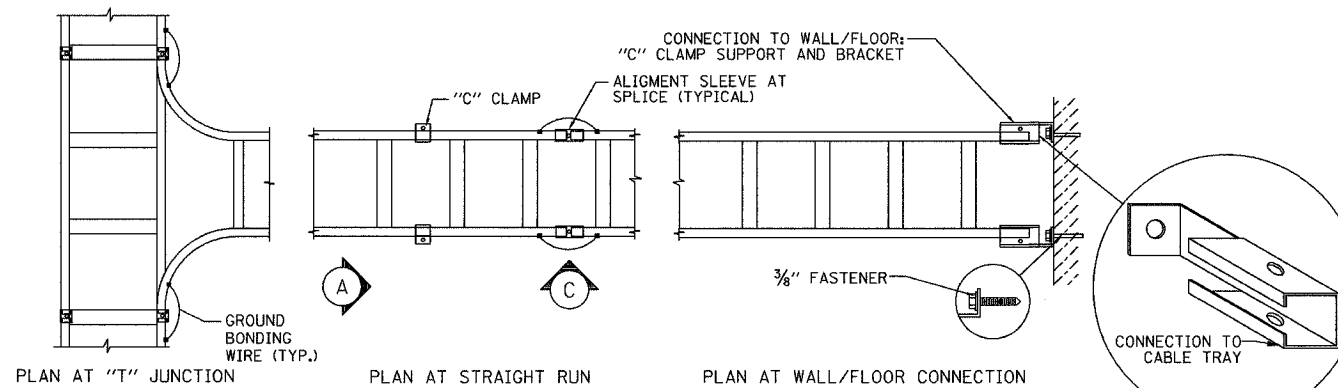
COMM-93

11/23/2004 07:29:22 AM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62583				

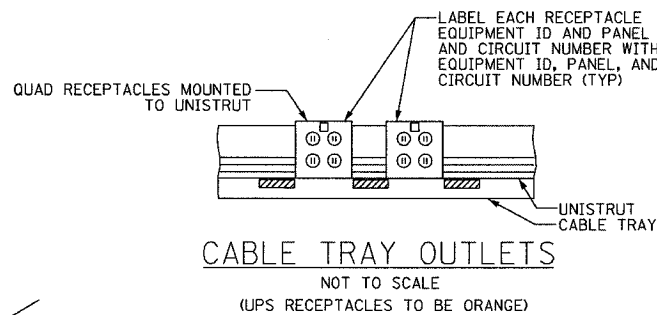


TYPICAL EQUIPMENT RACK CROSS SECTION
NOT TO SCALE

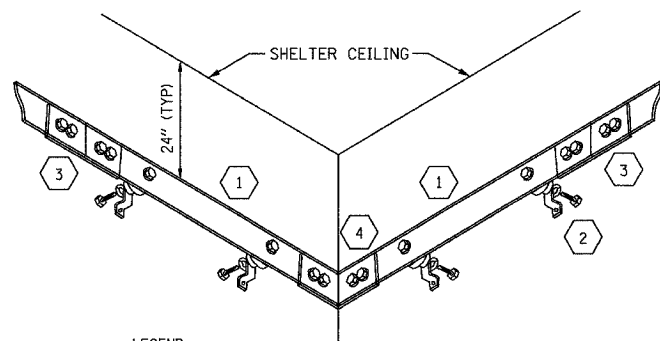


CABLE TRAY- DETAILED PLAN VIEW
NOT TO SCALE

- NOTES:
1. ALL BENDS IN THE INTERIOR GROUND WIRE SHALL BE 12-INCH NOMINAL AND 8-INCH MINIMUM.
 2. INSTALL INTERIOR GROUND BUS 7' 6" FROM THE FLOOR AND NOT CLOSER THAN 3" FROM THE CEILING UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
 3. EACH SECTION OF INTERIOR CABLE TRAY SHALL BE BONDED TOGETHER USING TWO #6 AWG JUMPERS (ONE ON EACH SIDE) TO FORM AN ELECTRICALLY CONTINUOUS TRAY.
 4. ALL GROUNDING CONNECTIONS TO THE GROUND BUS AND EQUIPMENT SHALL BE MADE WITH DOUBLE HOLE HYDRAULICALLY INDENTED LUGS.



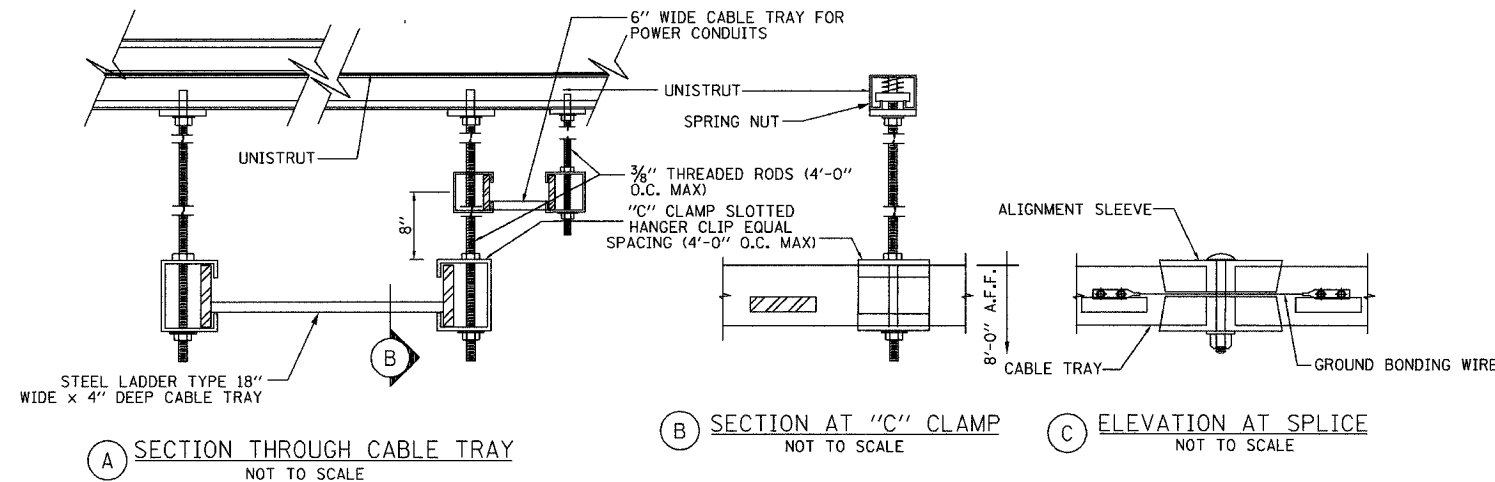
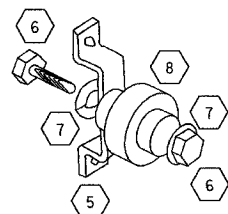
CABLE TRAY OUTLETS
NOT TO SCALE
(UPS RECEPTACLES TO BE ORANGE)



LEGEND

- 1 1/4" X 4" X (LENGTH) COPPER GROUND BAR
- 2 STAND-OFF INSULATORS, MOUNTING BRACKETS AND HARDWARE
- 3 2" X 6" SPLICE PLATE
- 4 (1/4" THICK) 2" WIDE -90 DEGREE ELBOW
- 5 STAINLESS STEEL MOUNTING BRACKET
- 6 3/4" HEX HEAD CAP SCREW (2 PER MOUNT)
- 7 LOCK WASHER AND FLAT WASHER (2 PER MOUNT)
- 8 2" X 2" STAND-OFF INSULATOR

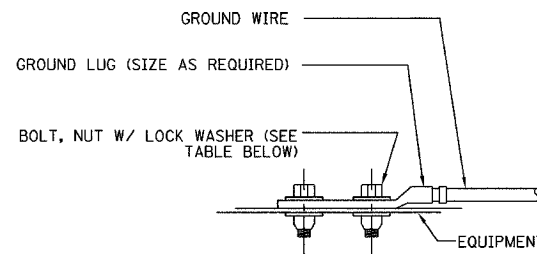
GROUND BUS SYSTEM
NOT TO SCALE



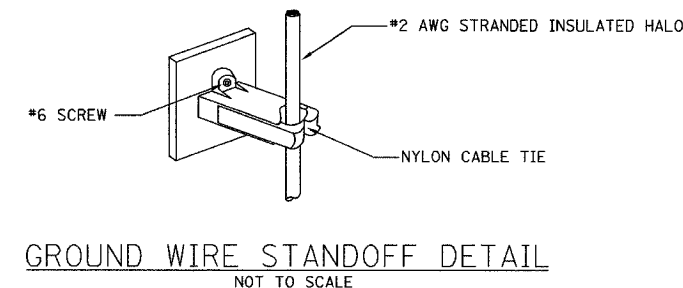
SECTION THROUGH CABLE TRAY
NOT TO SCALE

SECTION AT "C" CLAMP
NOT TO SCALE

ELEVATION AT SPLICE
NOT TO SCALE



TYPICAL EQUIPMENT GROUND CONNECTION
NOT TO SCALE



GROUND WIRE STANDOFF DETAIL
NOT TO SCALE

WIRE SIZE	LUG #	BOLT SIZE
#4/0	53212	1/2" - 20 NC x 1/2" S.S. BOLT & NUT W/LOCK WASHERS
#2	53207	1/4" - 20 NC x 1/2" S.S. BOLT & NUT W/LOCK WASHERS
#6	53205	1/4" - 20 NC x 1/2" S.S. BOLT & NUT W/LOCK WASHERS

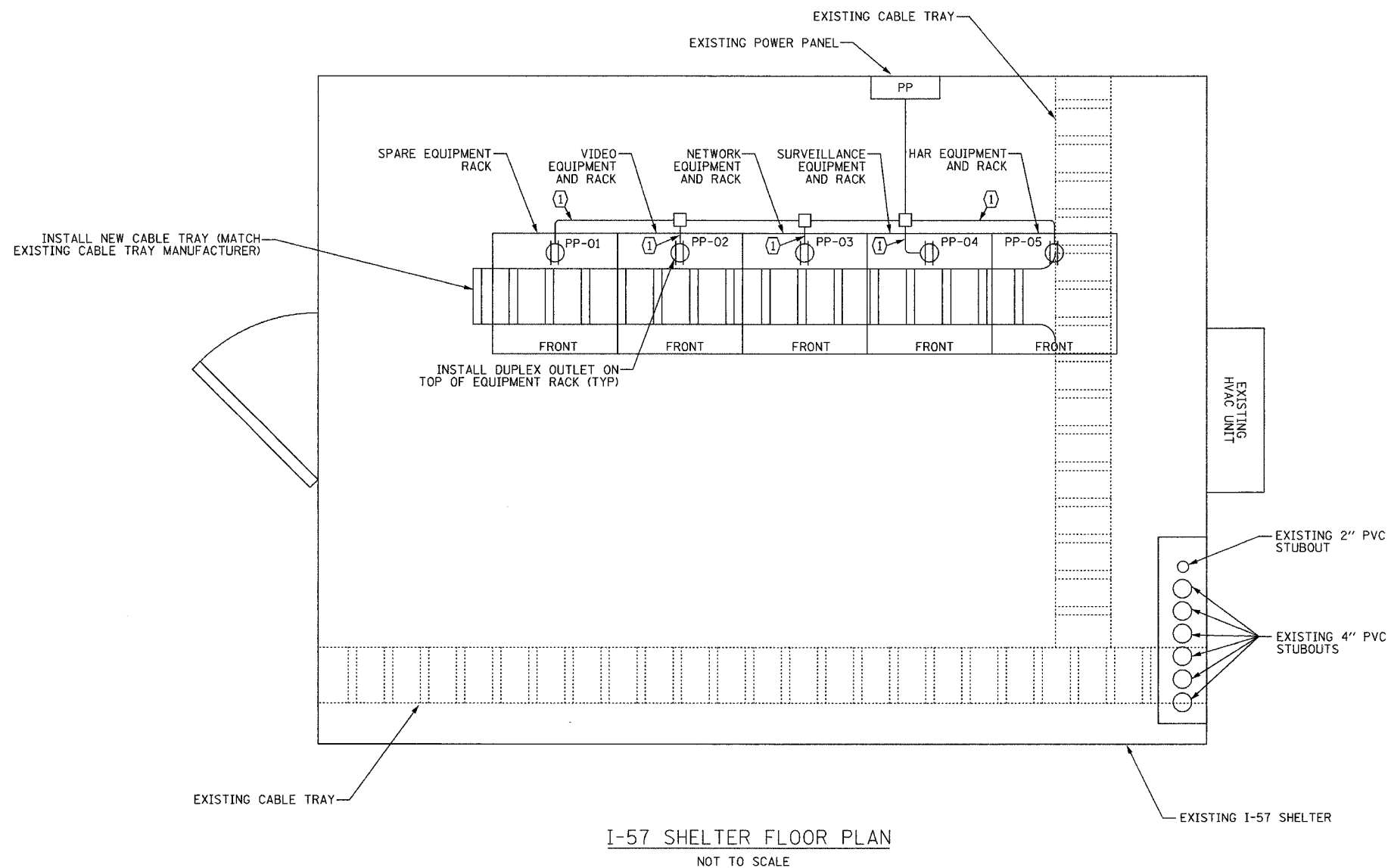
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57

SHELTER DETAILS
(SHEET 2 OF 2)

SCALE: NOT TO SCALE
DATE: October 29, 2004

DRAWN BY: JM
CHECKED BY: CS



I-57 SHELTER FLOOR PLAN
NOT TO SCALE

NOTES:

- EQUIPMENT LAYOUT BASED ON PRELIMINARY SHELTER INSPECTION. CONTRACTOR MAY NEED TO FIELD LOCATE EQUIPMENT RACKS AND EQUIPMENT. COORDINATE WITH THE ENGINEER THE FINAL LOCATION OF ALL EQUIPMENT.
- CONTRACTOR SHALL MAINTAIN A MINIMUM OF 36" CLEARANCE WHEN INSTALLING NEW RACKS AND EQUIPMENT.

(1) (2) #12, (1) #12 GND, 3/4" EMT CONDUIT

REVISIONS	
NAME	DATE

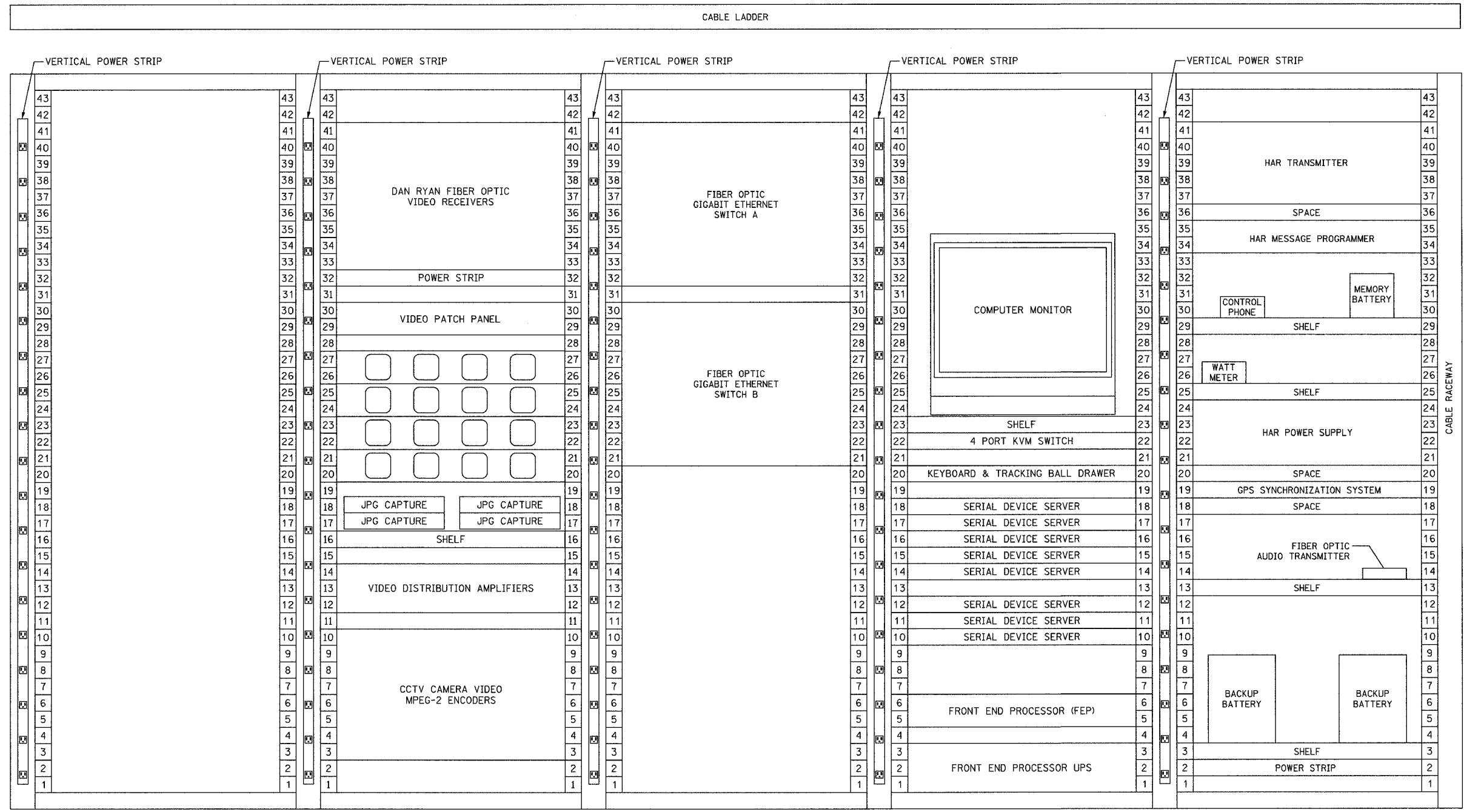
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57

I-57 SHELTER (R04)
EQUIPMENT LAYOUT

SCALE: NOT TO SCALE
DATE: October 29, 2004

DRAWN BY: DHI
CHECKED BY: JEZ

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	862
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62583				



ABBREVIATIONS
 (B) BACKBONE
 (D) DISTRIBUTION
 FO FIBER OPTIC
 HAR HIGHWAY ADVISORY RADIO
 KVM KEYBOARD/VIDEO/MOUSE

NOTES:
 1. FOR I-57 SHELTER CCTV DISTRIBUTION SUBSYSTEM WIRING DIAGRAM, SEE SHEET COMM-71.
 2. FOR I-57 SHELTER TRAFFIC SUVEILLANCE SYSTEM WIRING DIAGRAM, SEE SHEET COMM-73.
 3. ALL INSTALLED HARDWARE SHALL HAVE ENGRAVED NAMEPLATES WITH AN ATTACHMENT METHOD AND DESIGNATION APPROVED BY THE ENGINEER.

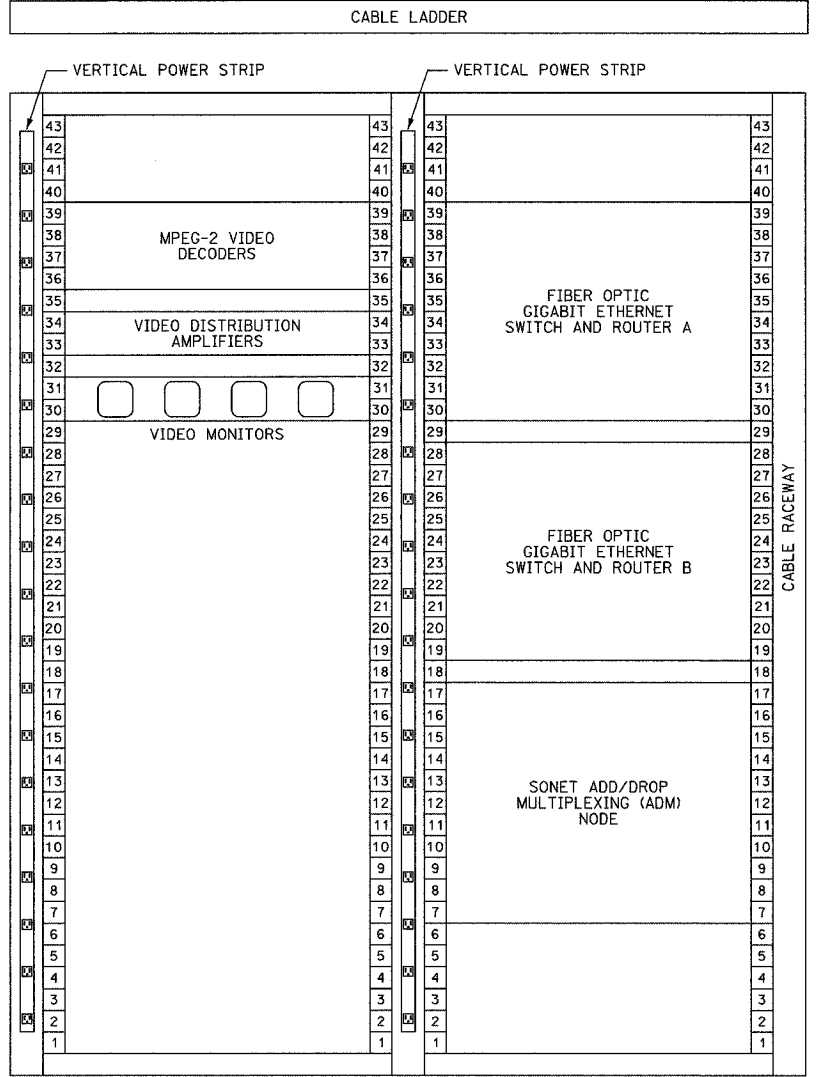
REVISIONS	
NAME	DATE
REVISION 1	12/17/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57
 I-57 SHELTER (R04)
 EQUIPMENT RACK ELEVATION
 SCALE: NOT TO SCALE
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: JEZ

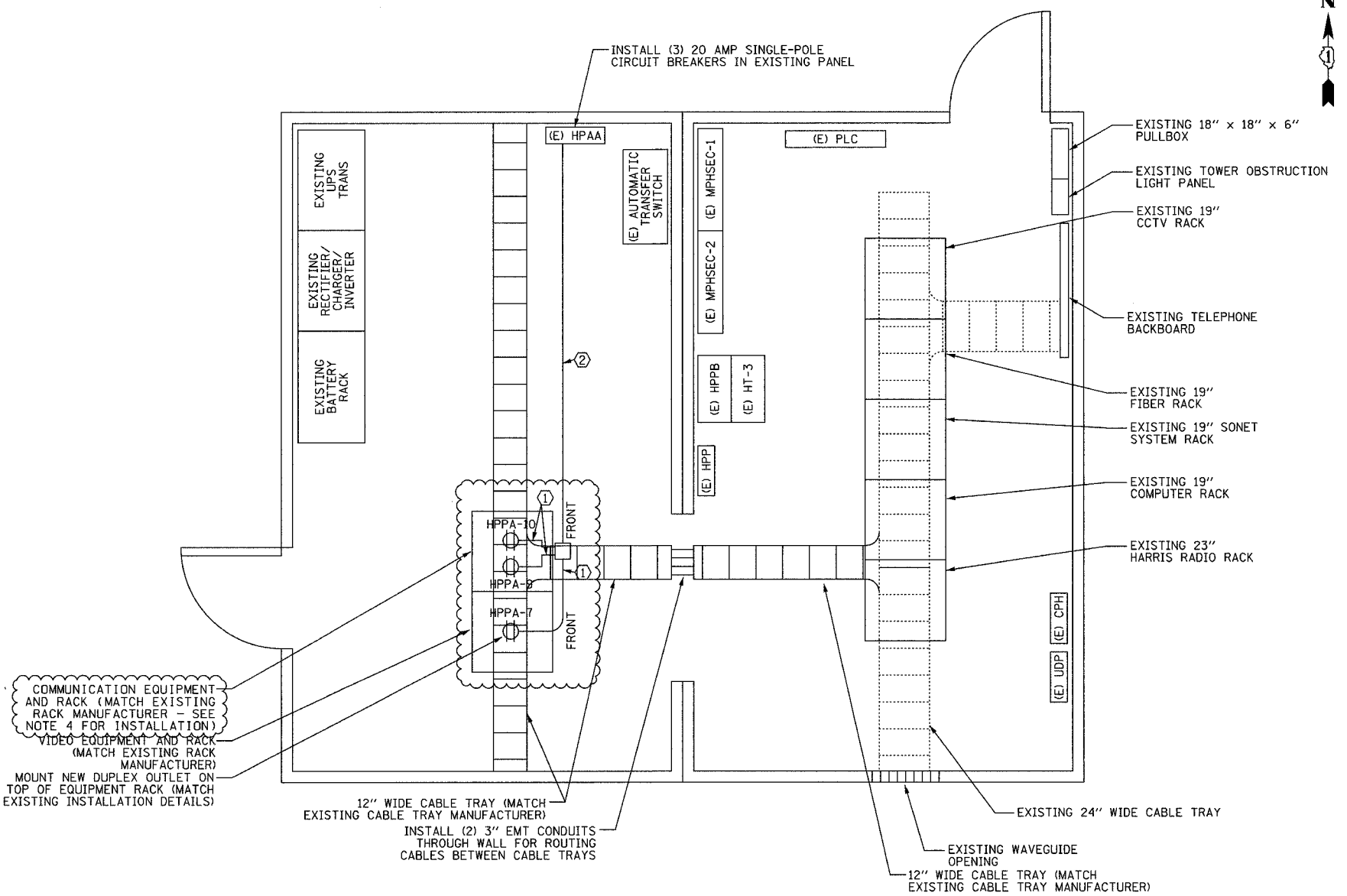
Edwards AND Kelcey
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 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EXCORP.COM

COMM-96

12/15/2004 01:51:33 PM

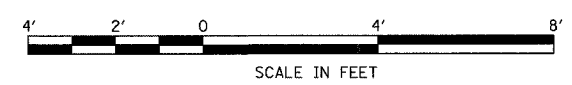


EQUIPMENT RACK ELEVATION
NOT TO SCALE



- ① (2) #12 & (1) #12 GND, 3/4" C
- ② (2) [(2) #12 & (1) #12 GND], 1" C
- ⊕ DUPLEX RECEPTACLE
- (E) EXISTING EQUIPMENT

EQUIPMENT LAYOUT PLAN

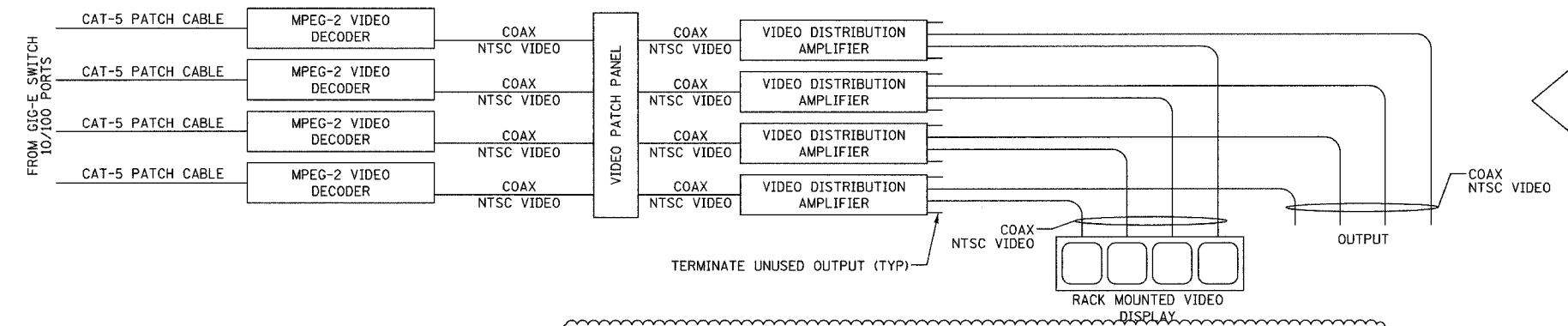


- NOTES:
- UNLESS OTHERWISE NOTED, ALL EQUIPMENT IS TO BE INSTALLED UNDER THIS CONTRACT.
 - FOR EQUIPMENT WIRING DIAGRAM, SEE SHEET COMM-98.
 - CONTRACTOR SHALL MAINTAIN A MINIMUM OF 36" CLEARANCE WHEN INSTALLING NEW RACKS AND EQUIPMENT.
 - INSTALL GIGABIT ETHERNET SWITCHES ON SEPARATE ELECTRICAL CIRCUITS.
 - ALL INSTALLED EQUIPMENT SHALL HAVE ENGRAVED NAMEPLATES WITH AN ATTACHMENT METHOD AND DESIGNATION APPROVED BY THE ENGINEER.

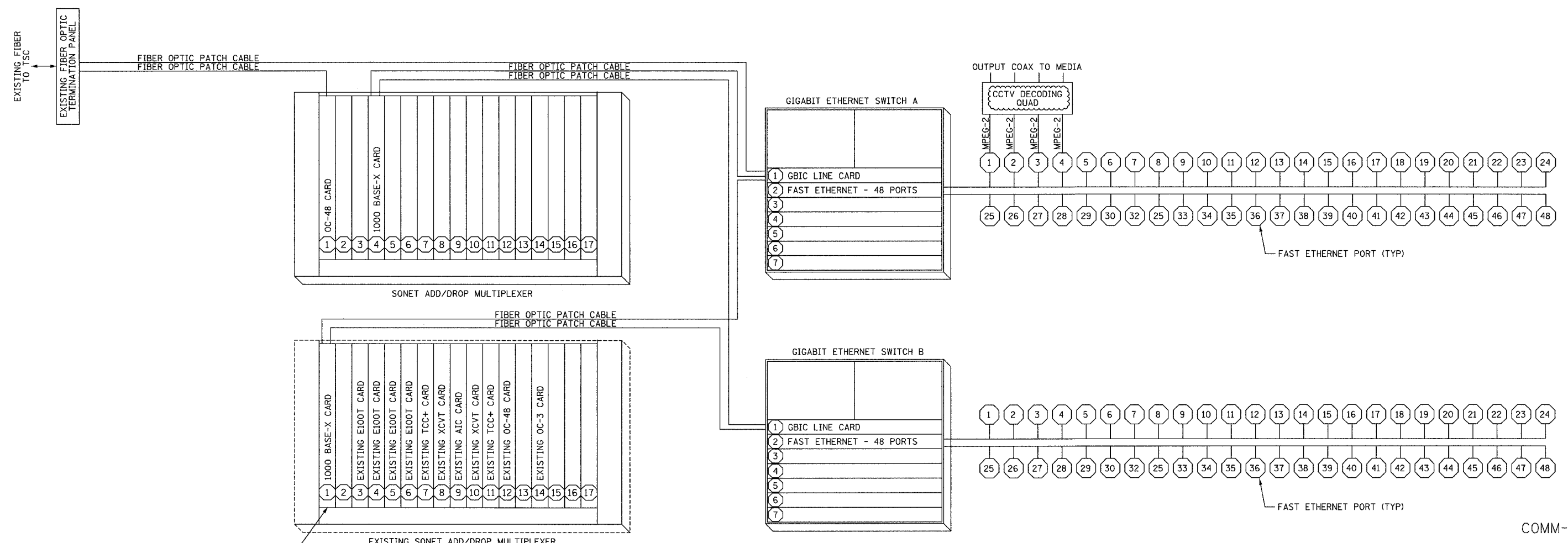
REVISIONS	
NAME	DATE
REVISION 1	12/17/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57
HILLSIDE SHELTER
EQUIPMENT LAYOUT
SCALE: NOT TO SCALE
DATE: October 29, 2004
DRAWN BY: DHI
CHECKED BY: JEZ

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	864
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62583				



ONE-LINE DIAGRAM FOR CCTV DECODING QUAD
NOT TO SCALE



EQUIPMENT INTERCONNECT DIAGRAM
NOT TO SCALE

INSTALL NEW CARD IN EXISTING SONET MULTIPLEXER

- NOTES:
1. THIS DRAWING PROVIDES AN OVERVIEW OF THE CCTV EQUIPMENT INTERCONNECTS AT THE SHELTER.
 2. CONTRACTOR SHALL PROVIDE NECESSARY POWER CONNECTIONS TO THE EQUIPMENT.
 3. EACH CCTV DECODING QUAD SHALL BE FULLY EQUIPPED WITH ALL HARDWARE.

Edwards AND Kelcey
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CHICAGO, IL 60606
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FAX: (312) 251-3015
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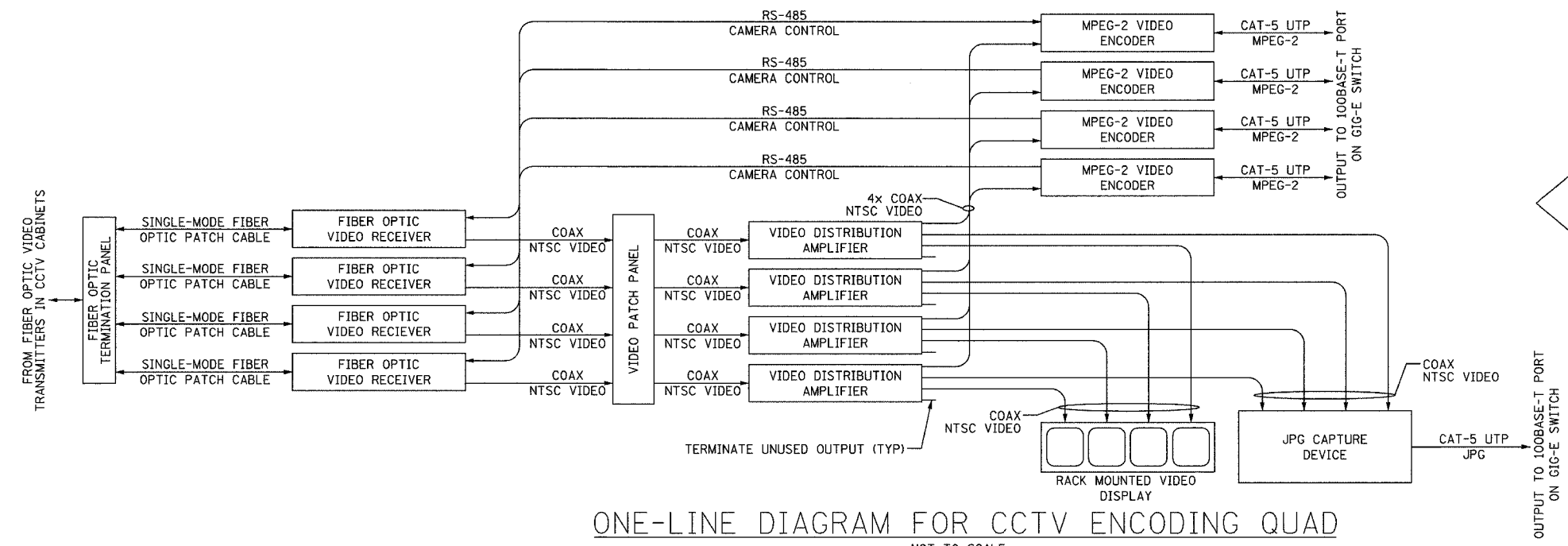
REVISIONS	
NAME	DATE
REVISION 1	12/17/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO I-57
HILLSIDE SHELTER
EQUIPMENT WIRING DIAGRAM
SCALE: NOT TO SCALE
DATE: October 29, 2004
DRAWN BY: DHI
CHECKED BY: JEZ

COMM-98

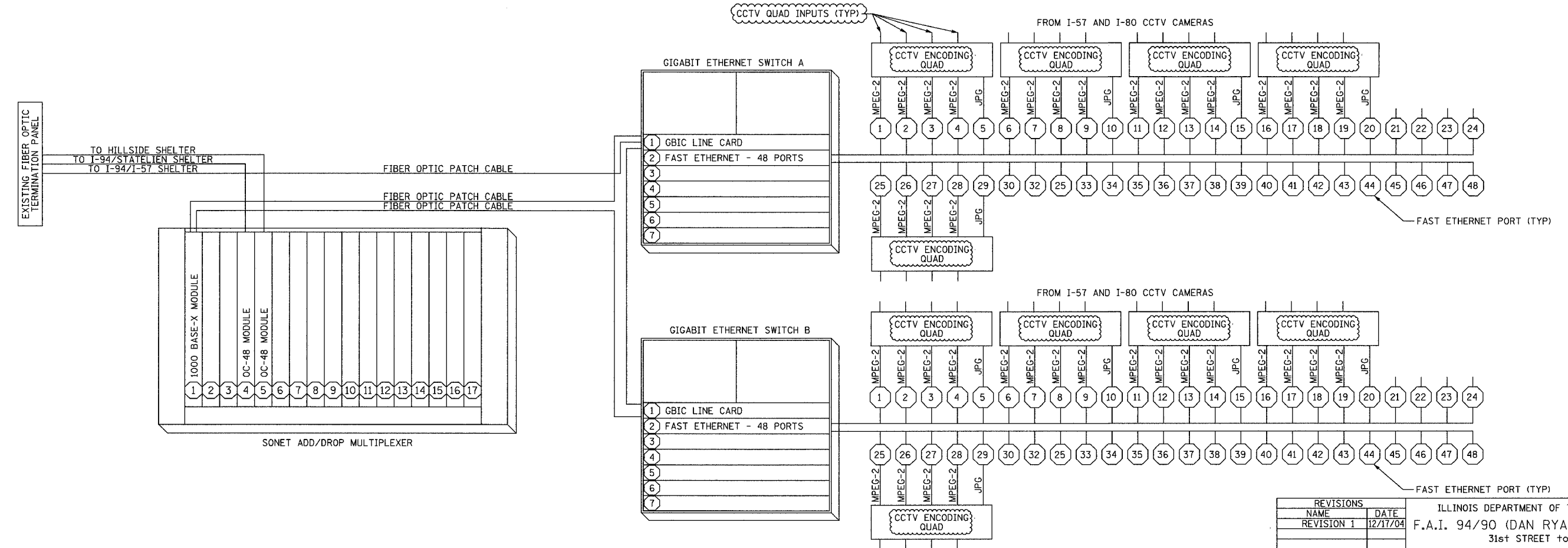
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62583				



ONE-LINE DIAGRAM FOR CCTV ENCODING QUAD
NOT TO SCALE

- NOTES:
1. THIS DRAWING IS FOR REFERENCE ONLY AND PROVIDES AN OVERVIEW OF THE CCTV EQUIPMENT INTERCONNECTS AT THE SHELTER.
 2. CONTRACTOR SHALL PROVIDE NECESSARY POWER CONNECTIONS TO THE EQUIPMENT.
 3. EACH CCTV ENCODING QUAD SHALL BE FULLY EQUIPPED WITH HARDWARE.



EQUIPMENT INTERCONNECT DIAGRAM
NOT TO SCALE

REVISIONS	
NAME	DATE
REVISION 1	12/17/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57

I-294/I-57 SHELTER
WIRING DIAGRAM

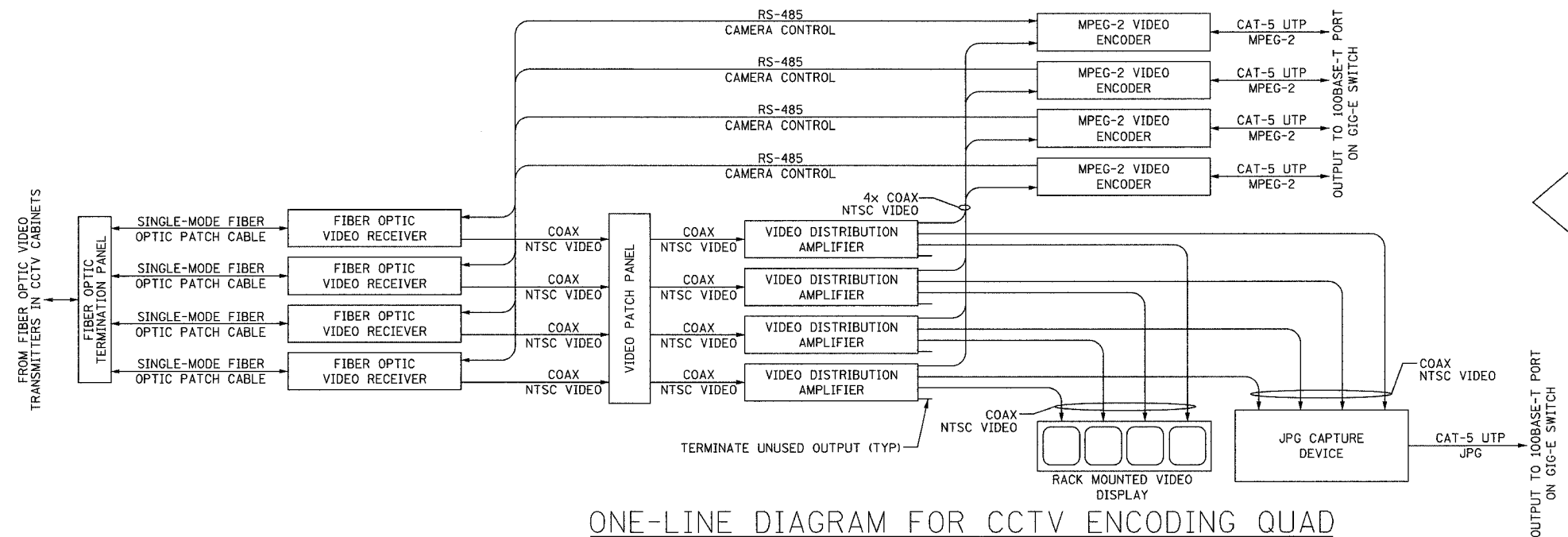
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DRAWN BY: DHI
CHECKED BY: JEZ

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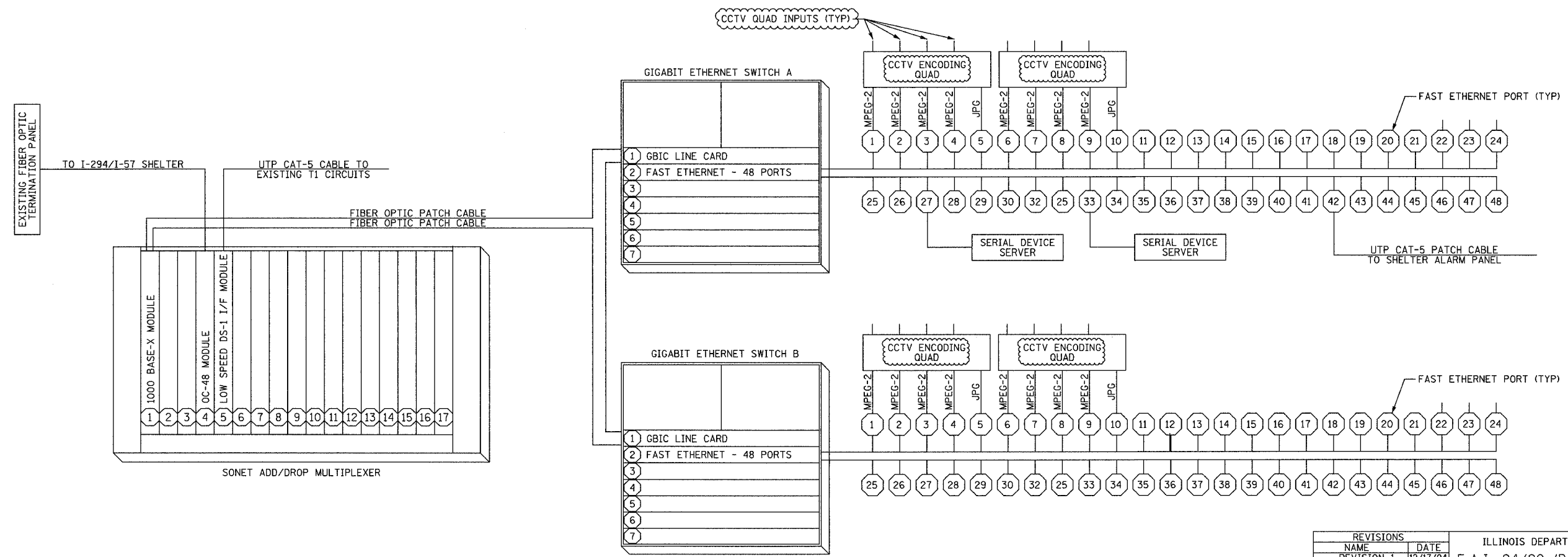
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94/90	2003-0311	COOK	976	866
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62583				

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ONE-LINE DIAGRAM FOR CCTV ENCODING QUAD
NOT TO SCALE

- NOTES:
1. THIS DRAWING IS FOR REFERENCE ONLY AND PROVIDES AN OVERVIEW OF THE CCTV EQUIPMENT INTERCONNECTS AT THE SHELTER.
 2. CONTRACTOR SHALL PROVIDE NECESSARY POWER CONNECTIONS TO THE EQUIPMENT.
 3. EACH CCTV ENCODING QUAD SHALL BE FULLY EQUIPPED WITH ALL HARDWARE.



EQUIPMENT INTERCONNECT DIAGRAM
NOT TO SCALE

REVISIONS	
NAME	DATE
REVISION 1	12/17/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57

I-94/STATELINE SHELTER
WIRING DIAGRAM

SCALE: NOT TO SCALE
DATE: October 29, 2004

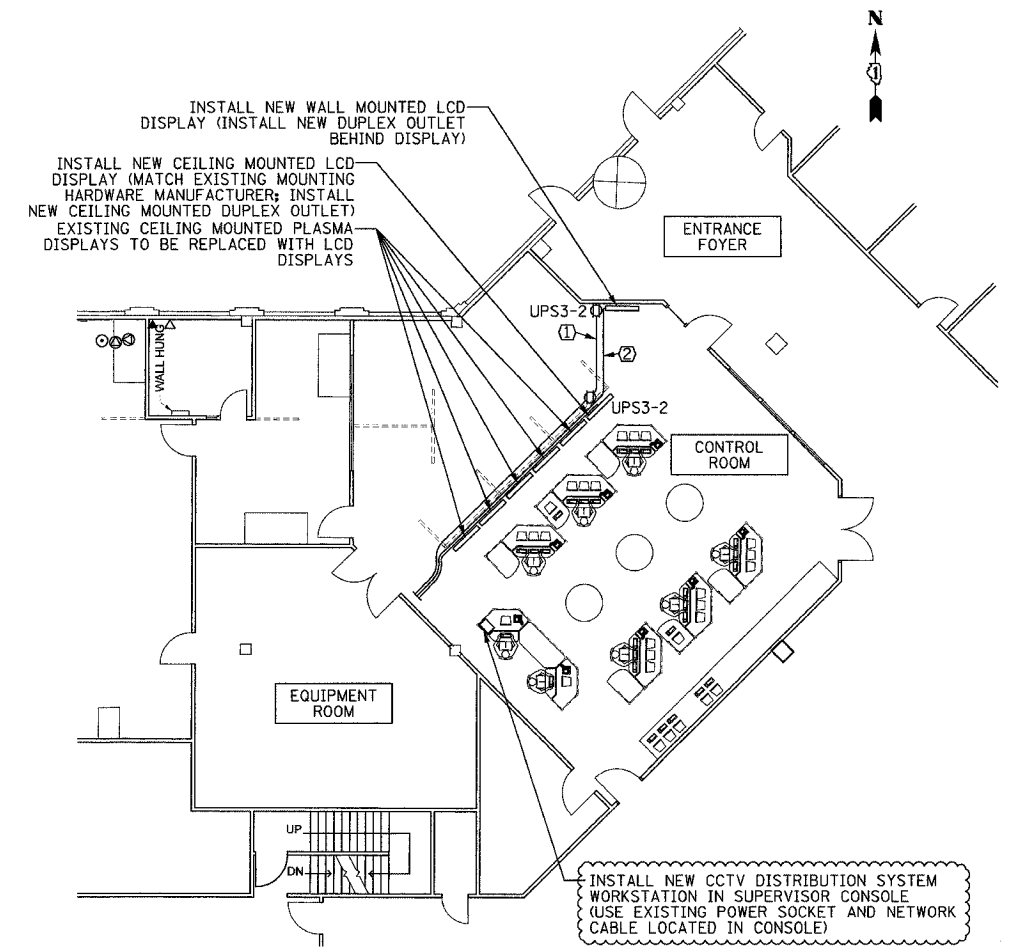
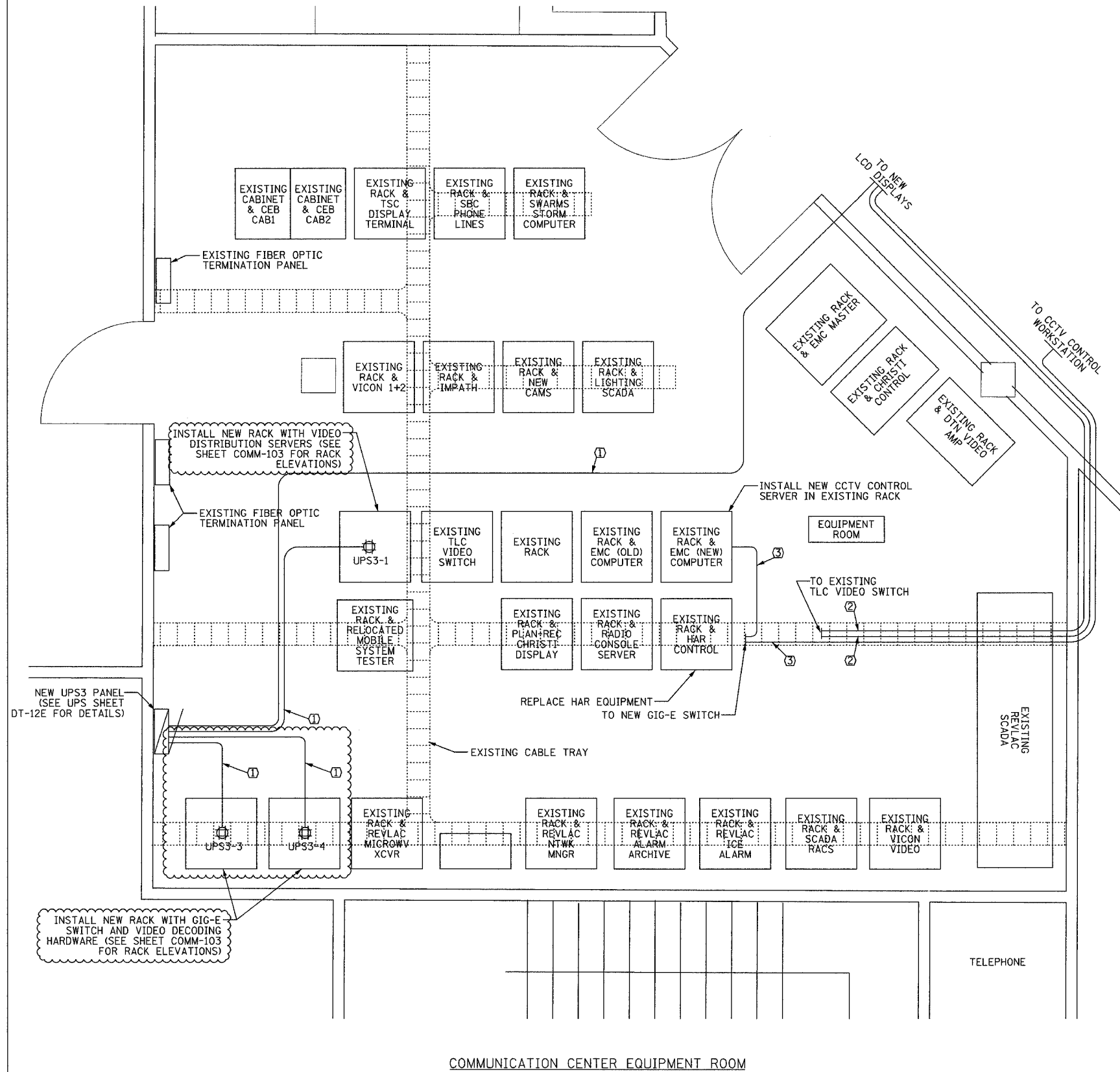
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CHECKED BY: JEZ

COMM-100

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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-031I	COOK	976	867
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			

- NOTES:
- EQUIPMENT LOCATIONS ARE BASED ON CURRENT CONDITIONS AND ARE ANTICIPATED TO CHANGE. THE CONTRACTOR SHALL COORDINATE THE ACTUAL LOCATION OF NEW EQUIPMENT WITH SITE PERSONNEL, SUBJECT TO THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHOULD ANTICIPATE THAT CHANGES TO THE LOCATION DO NOT AFFECT OVERALL SCOPE OF WORK OR MATERIALS FURNISHED.
 - CONTRACTOR SHALL PROVIDE ADDITIONAL CABLE TO MOVE RACKS FORWARD TO PROVIDE ACCESS TO REAR OF CABINET.
 - MOBILE SYSTEM TESTER TO BE RELOCATED BY IDOT.
- ① (2) #12 & (1) #12 GND, 3/4" C
 ② PLENUM RATED COAX CABLE
 ③ PLENUM RATED CAT-5 CABLE



COMMUNICATION CENTER MAIN FLOOR

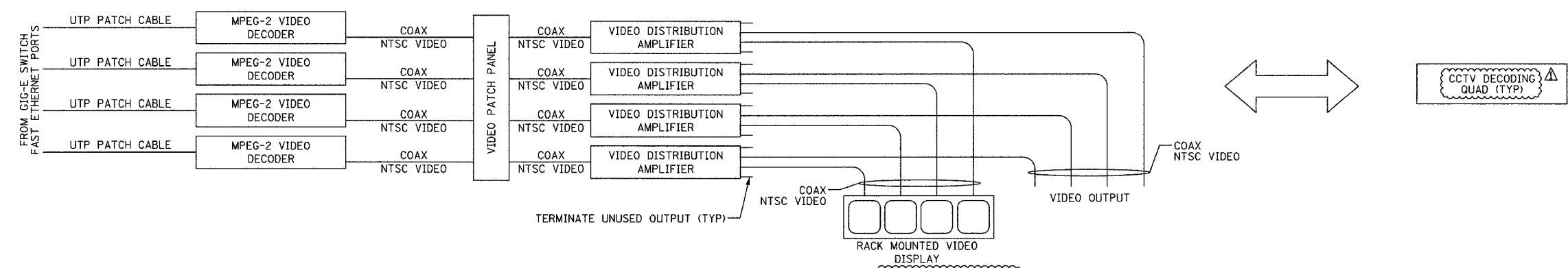
COMM-101

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) 31st STREET to I-57 COMMUNICATIONS CENTER (SCHAUMBURG) SITE PLAN
NAME	DATE	
REVISION 1	12/17/04	SCALE: NOT TO SCALE DATE: October 29, 2004 DRAWN BY: DHI CHECKED BY: JEZ

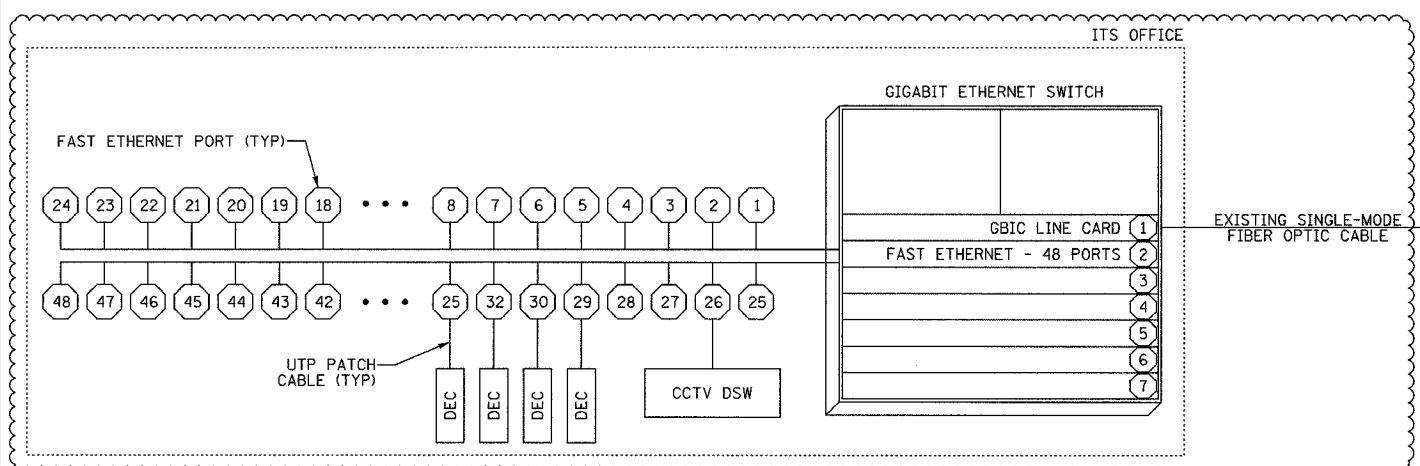
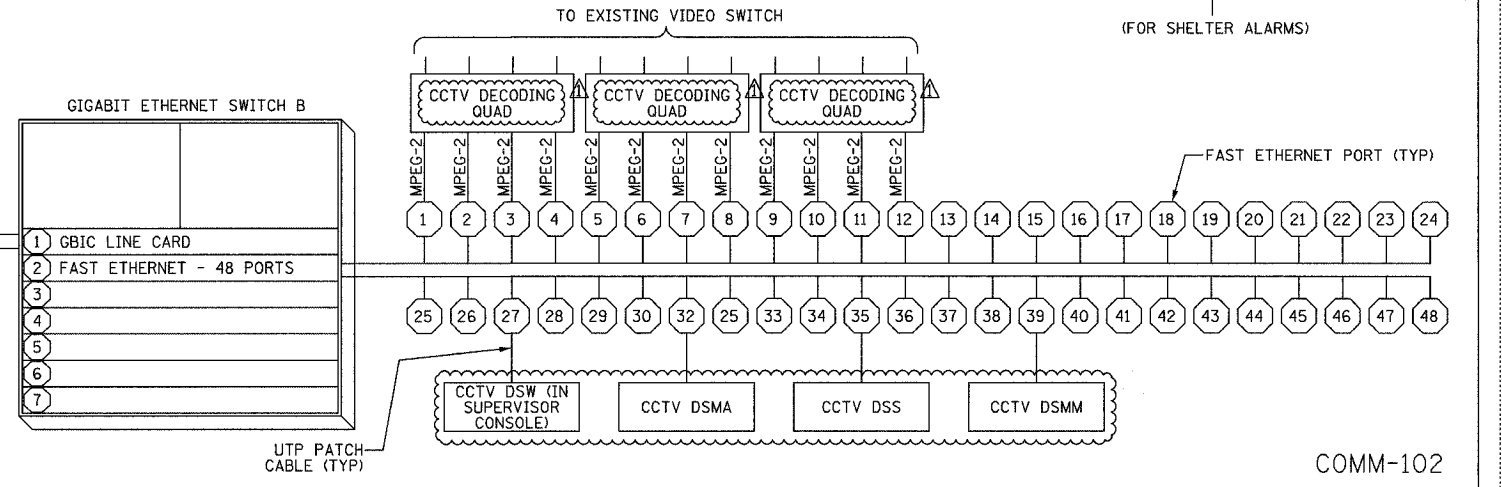
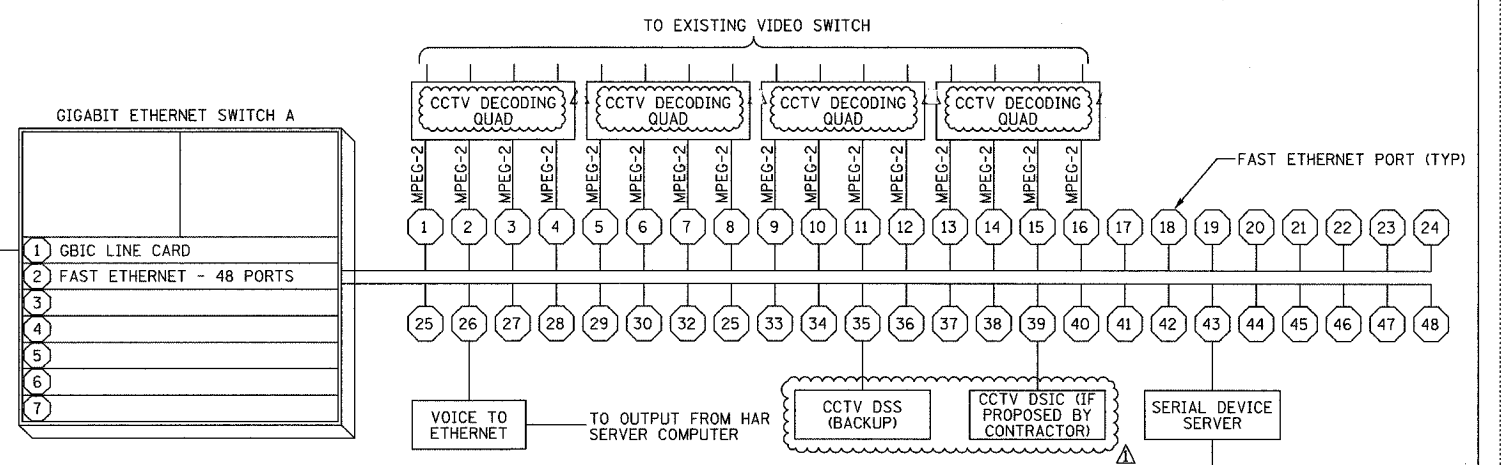
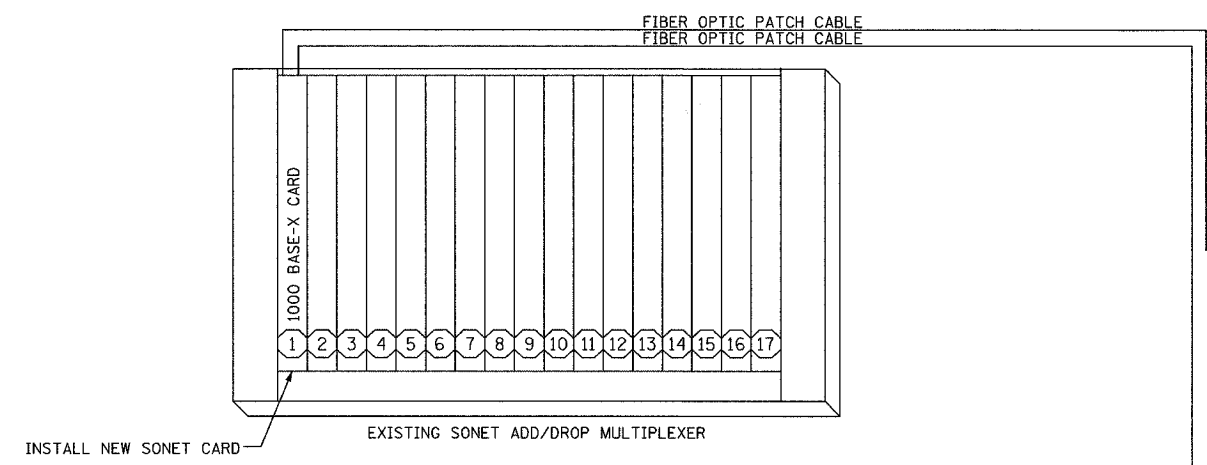
Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EKCORP.COM

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	868
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62583				



ONE-LINE DIAGRAM FOR CCTV DECODING QUAD
NOT TO SCALE



EQUIPMENT INTERCONNECT DIAGRAM
NOT TO SCALE

- NOTES:
1. THIS DRAWING IS FOR REFERENCE ONLY AND PROVIDES AN OVERVIEW OF THE CCTV EQUIPMENT INTERCONNECTS AT THE COMMUNICATION SHELTER.
 2. CONTRACTOR SHALL PROVIDE NECESSARY POWER CONNECTIONS TO THE EQUIPMENT.
 3. EACH CCTV DECODING QUAD SHALL BE FULLY EQUIPPED WITH ALL HARDWARE.

LEGEND:

DEC	MPEG-2 DECODER
DSIC	DISTRIBUTION SYSTEM IMAGE CAPTURE
DSMA	DISTRIBUTION SYSTEM VIDEO MANAGEMENT & ARCHIVING
DSMM	DISTRIBUTION SYSTEM MAINTENANCE MONITOR
DSS	DISTRIBUTION SYSTEM SERVER
DSW	DISTRIBUTION SYSTEM WORKSTATION

REVISIONS	
NAME	DATE
REVISION 1	12/17/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57

SCHAUBURG COMMUNICATION CENTER
EQUIPMENT WIRING DIAGRAM

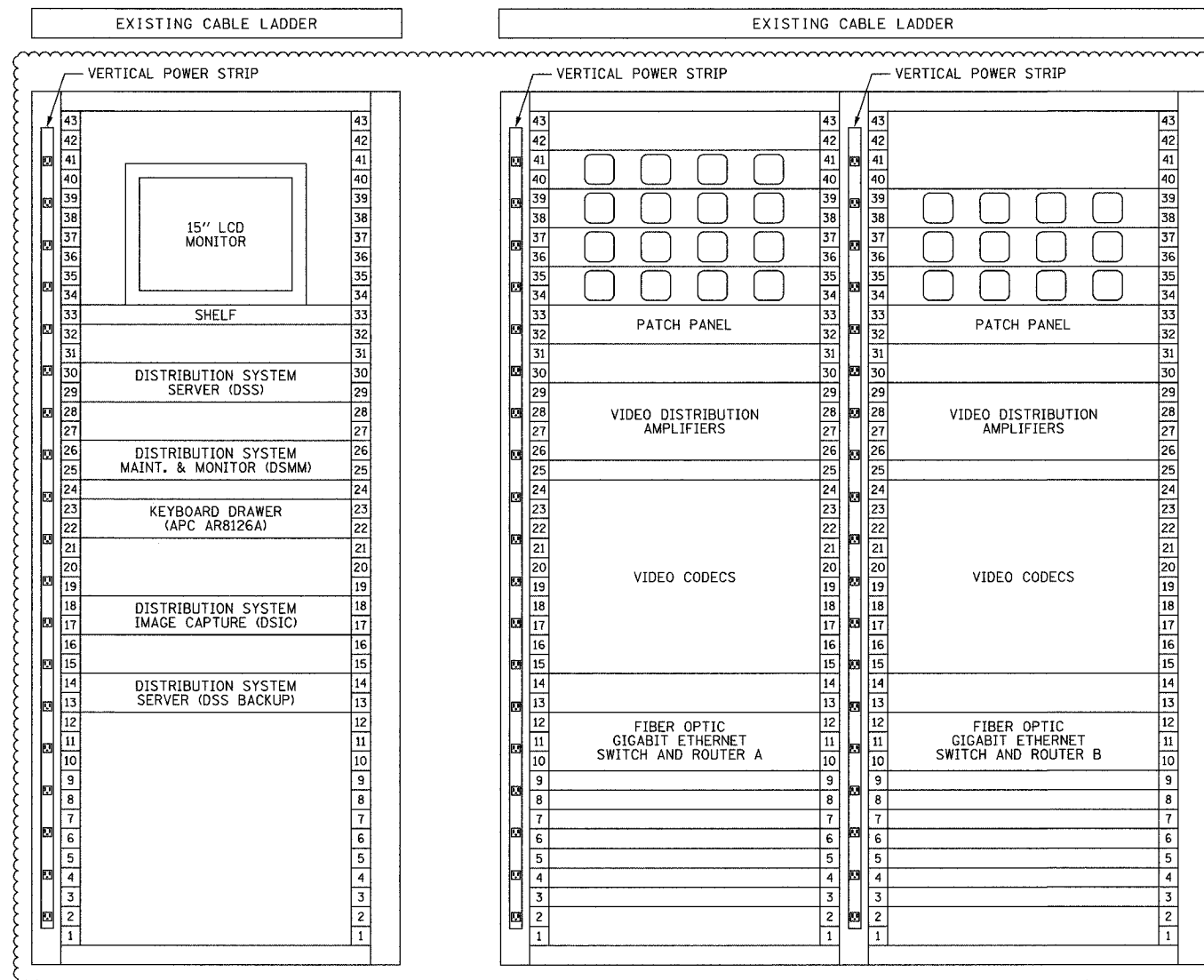
SCALE: NOT TO SCALE
DATE: October 29, 2004

DRAWN BY: DHI
CHECKED BY: JEZ



12/15/2004 01:52:15 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	869
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62583				



EQUIPMENT RACK ELEVATION
NOT TO SCALE

NOTES:
1. ALL INSTALLED HARDWARE SHALL HAVE ENGRAVED NAMEPLATES WITH AN ATTACHMENT METHOD AND DESIGNATION APPROVED BY THE ENGINEER.

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ONE NORTH FRANKLIN
CHICAGO, IL 60606
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FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

LEGEND:
DSIC DISTRIBUTION SYSTEM IMAGE CAPTURE
DSMA DISTRIBUTION SYSTEM VIDEO MANAGEMENT & ARCHIVING
DSMM DISTRIBUTION SYSTEM MAINTENANCE MONITOR
DSS DISTRIBUTION SYSTEM SERVER
DSW DISTRIBUTION SYSTEM WORKSTATION

REVISIONS	
NAME	DATE
REVISION 1	12/17/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57
SCHAUMBURG COMMUNICATION CENTER
EQUIPMENT RACK ELEVATION
SCALE: NOT TO SCALE
DATE: October 29, 2004
DRAWN BY: DHI
CHECKED BY: JEZ

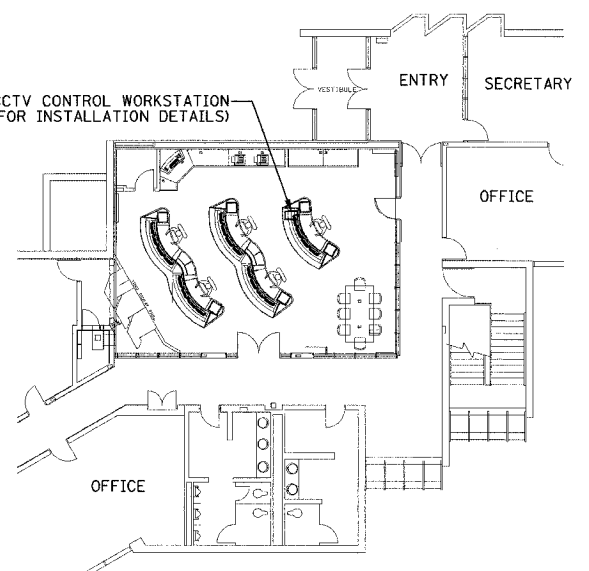
COMM-103

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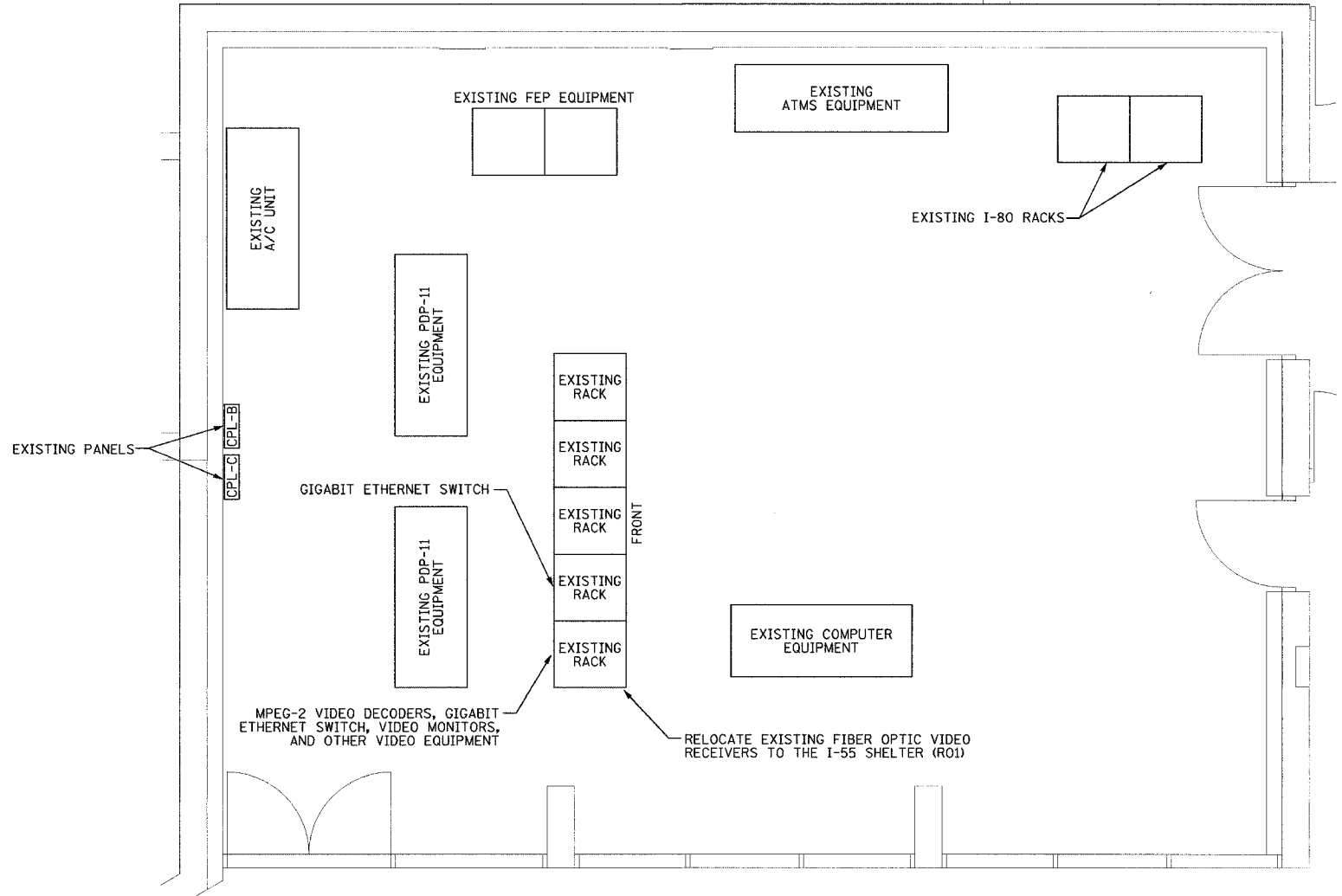
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2003-0311	COOK	976	870
STA. TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		
62583			



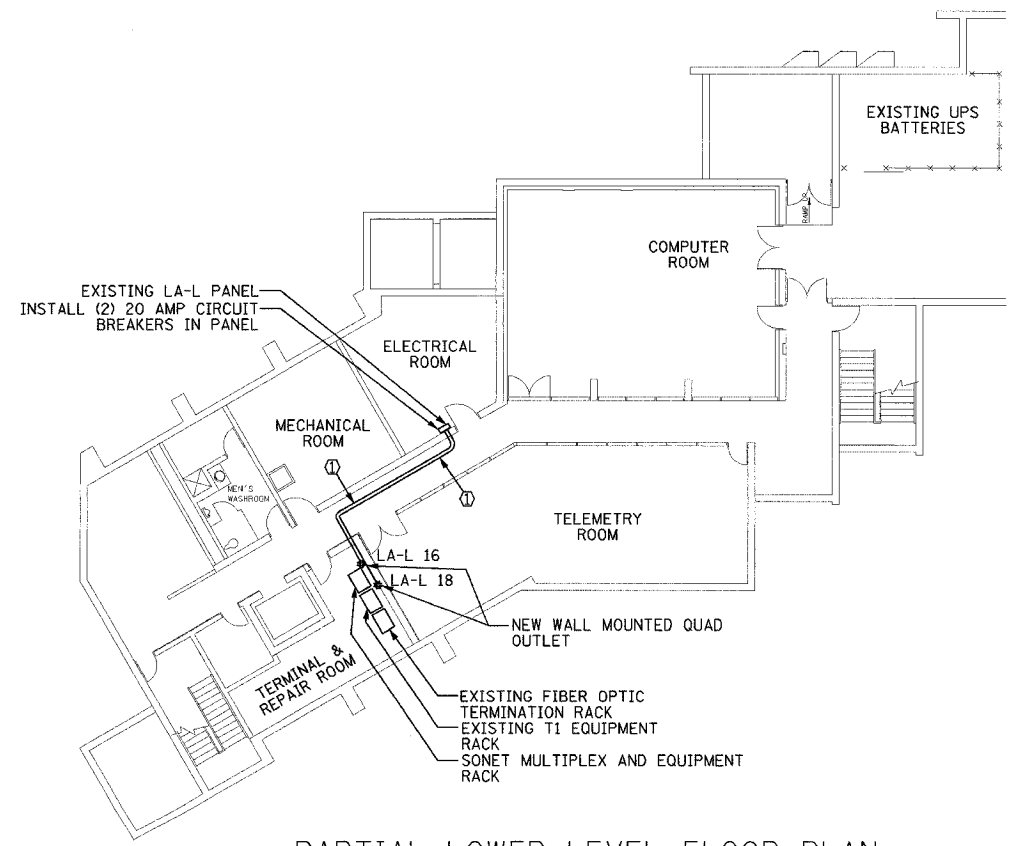
NEW CCTV CONTROL WORKSTATION
(SEE NOTE 3 FOR INSTALLATION DETAILS)



PARTIAL MAIN LEVEL FLOOR PLAN



COMPUTER ROOM



PARTIAL LOWER LEVEL FLOOR PLAN

① (2) #12 & (1) #12 GND, 3/4" C

Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EKCORP.COM

- NOTES:
- CONTRACTOR SHALL COORDINATE THE FINAL LOCATION OF ALL EQUIPMENT WITH THE ENGINEER.
 - UNLESS OTHERWISE NOTED, ALL EQUIPMENT IS TO BE INSTALLED UNDER THIS CONTRACT.
 - CCTV CONTROL WORKSTATION SHALL USE EXISTING POWER AND DATA PORTS LOCATED IN CONSOLE.

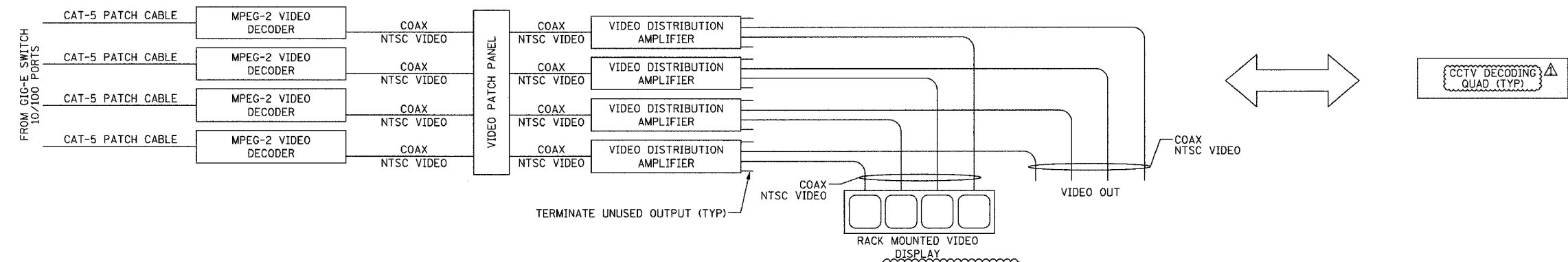
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57
 TRAFFIC SYSTEMS CENTER (TSC)
 SITE PLAN
 SCALE: NOT TO SCALE
 DATE: October 29, 2004
 DRAWN BY: DHI
 CHECKED BY: JEZ

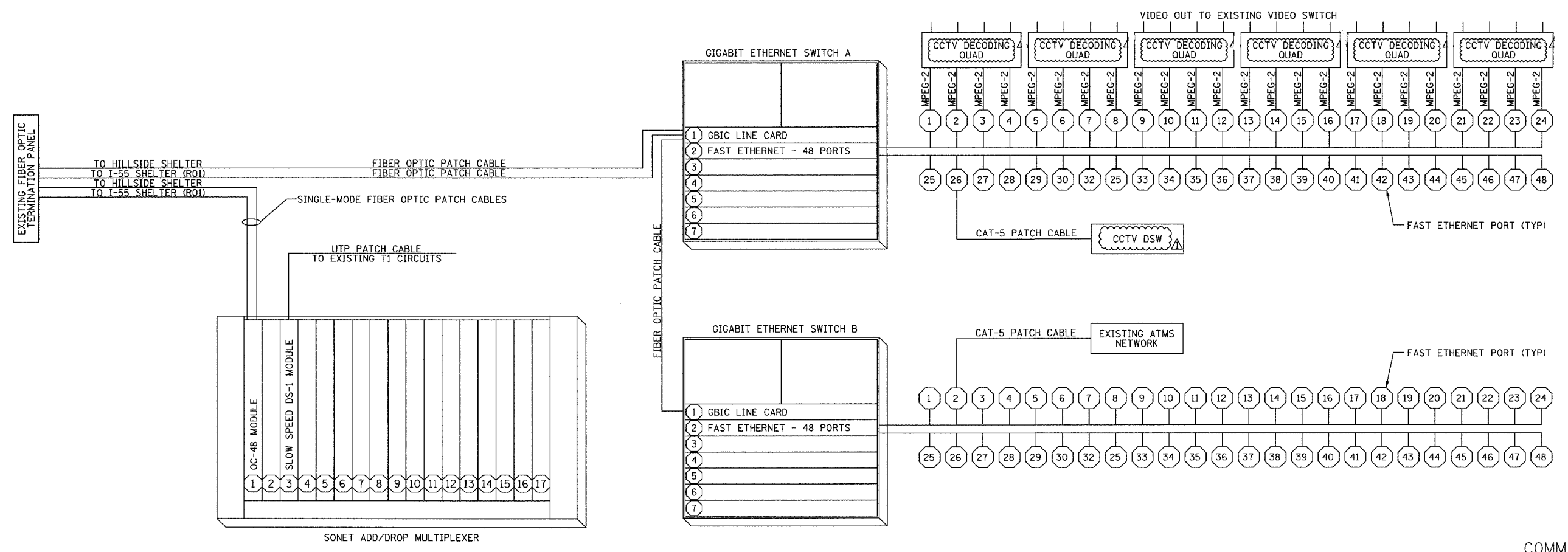
COMM-104

11/23/2004 07:30:27 AM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	871
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62583				



ONE-LINE DIAGRAM FOR CCTV DECODING QUAD
NOT TO SCALE



EQUIPMENT INTERCONNECT DIAGRAM
NOT TO SCALE

- NOTES:
- THIS DRAWING IS FOR REFERENCE ONLY AND PROVIDES AN OVERVIEW OF THE CCTV EQUIPMENT INTERCONNECTS AT THE COMMUNICATION SHELTER.
 - CONTRACTOR SHALL PROVIDE NECESSARY POWER CONNECTIONS TO THE EQUIPMENT.
 - ALL CCTV DECODING QUADS SHALL BE FULLY EQUIPPED WITH ALL HARDWARE.

LEGEND:
DSW DISTRIBUTION SYSTEM WORKSTATION

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

REVISIONS	
NAME	DATE
REVISION 1	12/17/04

COMM-105

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET TO I-57

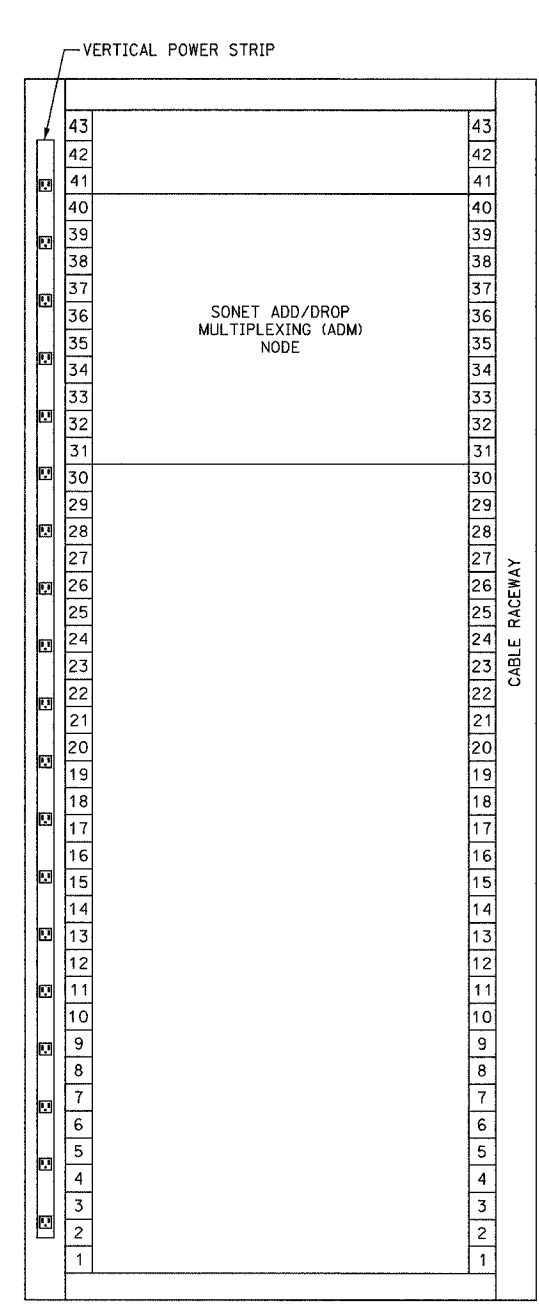
TRAFFIC SYSTEMS CENTER (TSC)
WIRING DIAGRAM

SCALE: NOT TO SCALE
DATE: October 29, 2004

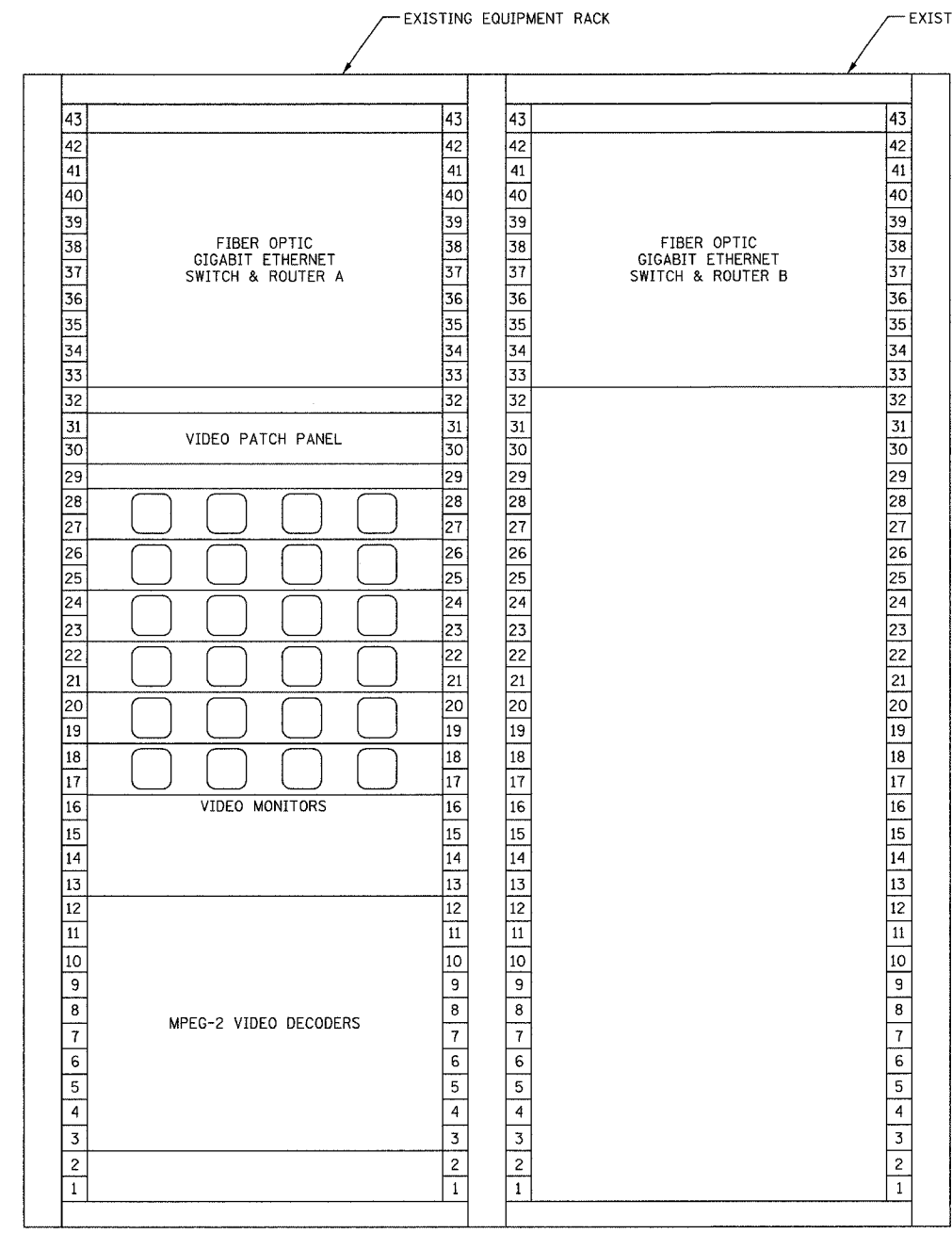
DRAWN BY: DHI
CHECKED BY: JEZ

12/15/2004 04:52:16 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-031I	COOK	976	872
STA.	TO STA.			
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				
62583				



TERMINAL & REPAIR ROOM
EQUIPMENT RACK LAYOUT
NOT TO SCALE



COMPUTER ROOM
EQUIPMENT RACK LAYOUT
NOT TO SCALE

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

ABBREVIATIONS
FOVT FIBER OPTIC VIDEO TRANSCEIVER

NOTES:
1. ALL INSTALLED HARDWARE SHALL HAVE ENGRAVED NAMEPLATES WITH AN ATTACHMENT METHOD AND DESIGNATION APPROVED BY THE ENGINEER.

REVISIONS	
NAME	DATE
REVISION 1	12/17/04

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57

TRAFFIC SYSTEMS CENTER (TSC)
RACK ELEVATION

SCALE: NOT TO SCALE
DATE: October 29, 2004

DRAWN BY: DHI
CHECKED BY: JEZ

COMM-106

12/15/2004 04:52:16 PM

* pgs 873-875 are deleted *

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-031I	COOK	976	876
STA.	TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	
62583			

P:030009.035 VTS:CAD:01.02062E.SHT

FIBER OPTIC CABLE R02 R04, 1-48, DIST		TERMINATION	FUNCTION	COMMENTS
1N	SERIAL DEVICE SERVER		TX	SURVEILLANCE CIRCUIT: DR-R04-SURV-01
2N	SERIAL DEVICE SERVER		RX	
3N			BACKUP	
4N			BACKUP	
5N				SURVEILLANCE CIRCUIT: DR-R01-SURV-03
6N				
7N				
8N				
9N	SERIAL DEVICE SERVER		TX	SURVEILLANCE CIRCUIT: DR-R04-SURV-05
10N	SERIAL DEVICE SERVER		RX	
11N			BACKUP	
12N			BACKUP	
13N				SURVEILLANCE CIRCUIT: DR-R01-SURV-07
14N				
15N				
16N				
17N	SERIAL DEVICE SERVER		TX	SURVEILLANCE CIRCUIT: DR-R04-SURV-09
18N	SERIAL DEVICE SERVER		RX	
19N			BACKUP	
20N			BACKUP	
21N	SERIAL DEVICE SERVER		TX	SURVEILLANCE CIRCUIT: DR-R04-DMS-01
22N	SERIAL DEVICE SERVER		RX	
23N				
24N				
25N	SERIAL DEVICE SERVER		TX	SURVEILLANCE CIRCUIT: DR-R01-DMS-03
26N	SERIAL DEVICE SERVER		RX	
27N				
28N				
29N	FIBER OPTIC VIDEO RECEIVER		CCTV VIDEO TX/RX	CCTV: DR-8C CCTV: DR-7D CCTV: DR-7A CCTV: DR-6A
30N				
31N	FIBER OPTIC VIDEO RECEIVER		CCTV VIDEO TX/RX	
32N	FIBER OPTIC VIDEO RECEIVER		CCTV VIDEO TX/RX	
33N				CCTV: DR-5B CCTV: DR-3C CCTV: DR-3A
34N	GIG-E SWITCH		TX	
35N	GIG-E SWITCH		RX	
36N	SERIAL DEVICE SERVER		TX	
37N	SERIAL DEVICE SERVER		RX	GIG-E TO I-55 SHELTER (R01) GIG-E TO I-55 SHELTER (R01) SHELTER ALARMS SHELTER ALARMS
38N	GIG-E SWITCH		TX	
39N	GIG-E SWITCH		RX	
40N				
41N				
42N				
43N				
44N				
45N				
46N				
47N				
48N				

I-57 SHELTER (R04) 48-FIBER DISTRIBUTION TERMINATION PANEL

FIBER OPTIC CABLE R03 R04, 1-48, DIST		TERMINATION	FUNCTION	COMMENTS
1N				SURVEILLANCE CIRCUIT: DR-R01-SURV-02
2N				
3N				
4N				
5N	SERIAL DEVICE SERVER		TX	SURVEILLANCE CIRCUIT: DR-R04-SURV-04
6N	SERIAL DEVICE SERVER		RX	
7N			BACKUP	
8N			BACKUP	
9N				SURVEILLANCE CIRCUIT: DR-R01-SURV-06
10N				
11N				
12N				
13N	SERIAL DEVICE SERVER		TX	SURVEILLANCE CIRCUIT: DR-R04-SURV-08
14N	SERIAL DEVICE SERVER		RX	
15N			BACKUP	
16N			BACKUP	
17N				SURVEILLANCE CIRCUIT: DR-R01-SURV-10
18N				
19N				
20N				
21N				SURVEILLANCE CIRCUIT: DR-R01-DMS-02
22N				
23N	SERIAL DEVICE SERVER		TX	
24N	SERIAL DEVICE SERVER		RX	
25N				SURVEILLANCE CIRCUIT: DR-R04-DMS-04
26N				
27N				
28N				
29N				SURVEILLANCE CIRCUIT: DR-R01-DMS-06
30N				
31N				
32N				
33N				
34N				
35N				
36N				
37N				
38N				
39N				
40N				
41N				
42N				
43N				
44N				
45N				
46N				
47N				
48N				

I-57 SHELTER (R04) 48-FIBER DISTRIBUTION TERMINATION PANEL



ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
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WEB: WWW.EKCORP.COM

REVISIONS	
NAME	DATE
REVISION	02/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57
I-57 SHELTER (R04)
FIBER OPTIC TERMINATION TABLES
(SHEET 1 OF 4)
SCALE: NTS
DATE: October 29, 2004
DRAWN BY: DHI
CHECKED BY: JEZ

COMM-110

10:25:46 AM 02/10/2005

FIBER OPTIC CABLE R03 R04, I-96, BB	TERMINATION	FUNCTION	COMMENTS
1N	GIG-E SWITCH	TX	GIG-E TO I-55 SHELTER (R01)
2N	GIG-E SWITCH	RX	GIG-E TO I-55 SHELTER (R01)
3N		TX	
4N		RX	
5N	PATCH TO I-57 96F	TX	SONET TO I-55 SHELTER (R01)
6N	PATCH TO I-57 96F	RX	SONET TO I-55 SHELTER (R01)
7N	SERIAL DEVICE SERVER	TX	SHELTER ALARMS
8N	SERIAL DEVICE SERVER	RX	SHELTER ALARMS
9N	FIBER OPTIC AUDIO TRANSCEIVER	TX	I-57 HAR AUDIO
11N	FIBER OPTIC AUDIO TRANSCEIVER	RX	I-57 HAR AUDIO
11N			
12N			
13N	FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO TX/RX	CCTV: DR-9A
14N			CCTV: DR-7B
15N			CCTV: DR-4B
16N	FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO TX/RX	CCTV: DR-2B
17N			
18N			
19N			
20N			
21N			
22N			
23N			
24N			
25N			
26N			
27N			
28N			
29N			
30N			
31N			
32N			
33N			
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39N			
40N			
41N			
42N			
43N			
44N			
45N			
46N			
47N			
48N			

FIBER OPTIC CABLE R03 R04, I-96, BB	TERMINATION	FUNCTION	COMMENTS
49N			
50N			
51N			
52N			
53N			
54N			
55N			
56N			
57N			
58N			
59N			
60N			
61N			
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96N			

I-57 SHELTER (R04) 96-FIBER BACKBONE TERMINATION TABLE

REVISIONS	
NAME	DATE
REVISION	02/17/05

** pg 878 is Deleted **

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	879
STA. 2003-0311 TO STA. COOK			
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			
62583			

EXISTING FIBER OPTIC CABLE ALONG I-57	TERMINATION	FUNCTION	COMMENTS
1S			
2S			
3S			
4S			
5S			
6S			
7S			
8S			
9S			
11S			
11S			
12S			
13S			
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17S			
18S			
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41S			
42S			
43S			
44S			
45S			
46S			
47S			
48S			

EXISTING FIBER OPTIC CABLE ALONG I-57	TERMINATION	FUNCTION	COMMENTS
49S			
50S			
51S			
52S			
53S			
54S			
55S			
56S			
57S			
58S			
59S			
60S			
61S			
62S			
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96S			

I-57 SHELTER (R04) 96-FIBER CABLE TERMINATION TABLE

COMM-113



NOTES:
 1. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER THE FIBER ASSIGNMENTS FOR NEW COMMUNICATION EQUIPMENT (INCLUDING SONET AND GIG-E) ON EXISTING I-57 FIBER.

REVISIONS	
NAME	DATE
REVISION	02/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57
 I-57 SHELTER (R04)
 FIBER OPTIC TERMINATION TABLES
 (SHEET 4 OF 4)
 SCALE: NOT TO SCALE DRAWN BY: DHI
 DATE: October 29, 2004 CHECKED BY: JEZ

02/09/2005 09:24 AM

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FIBER OPTIC CABLE R03 R04, 1-48, DIST	TERMINATION	FUNCTION	COMMENTS
1S	PATCH TO R03-R04 DIST FIBER 1N		SURVEILLANCE CIRCUIT: DR-R01-SURV-02
2S	PATCH TO R03-R04 DIST FIBER 2N		
3S			
4S			
5S	PATCH TO R01-R03 DIST FIBER 5N		SURVEILLANCE CIRCUIT: DR-R04-SURV-04
6S	PATCH TO R01-R03 DIST FIBER 6N		
7S			SURVEILLANCE CIRCUIT: DR-R01-SURV-06
8S			
9S	PATCH TO R01-R03 DIST FIBER 9N		
10S	PATCH TO R01-R03 DIST FIBER 10N		
11S			SURVEILLANCE CIRCUIT: DR-R04-SURV-08
12S			
13S	PATCH TO R01-R03 DIST FIBER 13N		SURVEILLANCE CIRCUIT: DR-R01-SURV-10
14S	PATCH TO R01-R03 DIST FIBER 14N		
15S			SURVEILLANCE CIRCUIT: DR-R01-DMS-02
16S			
17S	PATCH TO R01-R03 DIST FIBER 17N		SURVEILLANCE CIRCUIT: DR-R04-DMS-04
18S	PATCH TO R01-R03 DIST FIBER 18N		
19S			SURVEILLANCE CIRCUIT: DR-R01-DMS-06
20S			
21S	PATCH TO R01-R03 DIST FIBER 21N		
22S	PATCH TO R01-R03 DIST FIBER 22N		
23S	PATCH TO R01-R03 DIST FIBER 23N		
24S	PATCH TO R01-R03 DIST FIBER 24N		
25S	PATCH TO R01-R03 DIST FIBER 25N		
26S	PATCH TO R01-R03 DIST FIBER 26N		
27S			
28S			
29S			
30S			
31S			
32S			
33S			
34S			
35S			
36S			
37S			
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41S			
42S			
43S			
44S			
45S			
46S			
47S			
48S			

EAST SHELTER (R03) 48-FIBER DISTRIBUTION TERMINATION TABLE

FIBER OPTIC CABLE R01 R03, 1-48, DIST	TERMINATION	FUNCTION	COMMENTS
1N	PATCH TO R03-R04 DIST FIBER 1S		SURVEILLANCE CIRCUIT: DR-R01-SURV-02
2N	PATCH TO R03-R04 DIST FIBER 2S		
3N			
4N			
5N	PATCH TO R03-R04 DIST FIBER 5S		SURVEILLANCE CIRCUIT: DR-R04-SURV-04
6N	PATCH TO R03-R04 DIST FIBER 6S		
7N			SURVEILLANCE CIRCUIT: DR-R01-SURV-06
8N			
9N	PATCH TO R03-R04 DIST FIBER 9S		
10N	PATCH TO R03-R04 DIST FIBER 10S		
11N			SURVEILLANCE CIRCUIT: DR-R04-SURV-08
12N			
13N	PATCH TO R03-R04 DIST FIBER 13S		SURVEILLANCE CIRCUIT: DR-R01-SURV-10
14N	PATCH TO R03-R04 DIST FIBER 14S		
15N			SURVEILLANCE CIRCUIT: DR-R01-DMS-02
16N			
17N	PATCH TO R03-R04 DIST FIBER 17S		SURVEILLANCE CIRCUIT: DR-R04-DMS-04
18N	PATCH TO R03-R04 DIST FIBER 18S		
19N			SURVEILLANCE CIRCUIT: DR-R01-DMS-06
20N			
21N	PATCH TO R03-R04 DIST FIBER 21S		
22N	PATCH TO R03-R04 DIST FIBER 22S		
23N	PATCH TO R03-R04 DIST FIBER 23S		
24N	PATCH TO R03-R04 DIST FIBER 24S		
25N	PATCH TO R03-R04 DIST FIBER 25S		
26N	PATCH TO R03-R04 DIST FIBER 26S		
27N			
28N			
29N			
30N			
31N			
32N			
33N			
34N			
35N			
36N			
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47N			
48N			

EAST SHELTER (R03) 48-FIBER DISTRIBUTION TERMINATION TABLE



REVISIONS	
NAME	DATE
REVISION 1	12/17/04
REVISION	02/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57

EAST SHELTER (R03)
FIBER OPTIC TERMINATION TABLES
(SHEET 1 OF 4)

SCALE: NTS
DATE: October 29, 2004

DRAWN BY: DH1
CHECKED BY: JEZ

COMM-114

02/09/2005 09:02:22 AM

FIBER OPTIC CABLE R03 R04, 1-96, BB	TERMINATION	FUNCTION	COMMENTS
1S	PATCH TO R01 R03 BB FIBER 1N		GIG-E
2S	PATCH TO R01 R03 BB FIBER 2N		GIG-E
3S			
4S			
5S	PATCH TO R01 R03 BB FIBER 5N		SONET
6S	PATCH TO R01 R03 BB FIBER 6N		SONET
7S	SERIAL DEVICE SERVER	TX	HAR/SHELTER ALARMS
8S	SERIAL DEVICE SERVER	RX	HAR/SHELTER ALARMS
9S	FIBER OPTIC AUDIO TRANSCEIVER	TX	HAR AUDIO TO I-57 HAR
10S	FIBER OPTIC AUDIO TRANSCEIVER	RX	HAR AUDIO TO I-57 HAR
11S			
12S			
13S	PATCH TO DR-9A R03 FIBER 1		CCTV: DR-9A
14S	PATCH TO DR-7C R03 FIBER 1		CCTV: DR-7B
15S	PATCH TO DR-4B R03 FIBER 1		CCTV: DR-4B
16S	PATCH TO DR-2B R03 FIBER 1		CCTV: DR-2B
17S			
18S			
19S			
20S			
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FIBER OPTIC CABLE R03 R04, 1-96, BB	TERMINATION	FUNCTION	COMMENTS
49S			
50S			
51S			
52S			
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56S			
57S			
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EAST SHELTER (R03) 96-FIBER BACKBONE TERMINATION TABLE

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FIBER OPTIC CABLE R01 R03, 1-96, BB	TERMINATION	FUNCTION	COMMENTS
1N	PATCH TO R03 R04 FIBER 1S		GIG-E
2N	PATCH TO R03 R04 FIBER 2S		GIG-E
3N			
4N			
5N	PATCH TO R03 R04 FIBER 5S		SONET
6N	PATCH TO R03 R04 FIBER 6S		SONET
7N	SERIAL DEVICE SERVER	TX	HAR/SHELTER ALARMS
8N	SERIAL DEVICE SERVER	RX	HAR/SHELTER ALARMS
9N	FIBER OPTIC AUDIO TRANSCEIVER	TX	HAR AUDIO TO ROOSEVELT HAR
11N	FIBER OPTIC AUDIO TRANSCEIVER	RX	HAR AUDIO TO ROOSEVELT HAR
12N			
13N	PATCH TO DR-8B R03 FIBER 1		CCTV: DR-8B
14N	PATCH TO DR-7E R03 FIBER 1		CCTV: DR-7E
15N	PATCH TO DR-7C R03 FIBER 1		CCTV: DR-7C
16N	PATCH TO DR-6D R03 FIBER 1		CCTV: DR-6D
17N	PATCH TO DR-6B R03 FIBER 1		CCTV: DR-6B
18N	PATCH TO DR-4C R03 FIBER 1		CCTV: DR-4C
19N	PATCH TO DR-3D R03 FIBER 1		CCTV: DR-3D
20N			
21N			
22N			
23N			
24N			
25N			
26N			
27N			
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48N			

FIBER OPTIC CABLE R01 R03, 1-96, BB	TERMINATION	FUNCTION	COMMENTS
49N			
50N			
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56N			
57N			
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96N			

EAST SHELTER (R03) 96-FIBER BACKBONE TERMINATION TABLE

REVISIONS	
NAME	DATE
REVISION 1	12/17/04
REVISION	02/11/05

P:\03009\0311\VT\SCADD\01\02062E.SHT 10:23:31 AM 02/10/2005

* Pg 883 is Deleted *

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	884
STA. TO STA.			
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT	
62583			

F:\030019\0311\VT\S\CADD\01020062E.SHT

FIBER OPTIC CABLE R01 R02, 1-48, DIST R02 R05, 1-12, DIST	TERMINATION	FUNCTION	COMMENTS
1N	PATCH TO R02-R04 DIST FIBER 1S		SURVEILLANCE CIRCUIT: DR-R04-SURV-01
2N	PATCH TO R02-R04 DIST FIBER 2S		
3N			
4N			
5N	PATCH TO R02-R04 DIST FIBER 5S		SURVEILLANCE CIRCUIT: DR-R01-SURV-03
6N	PATCH TO R02-R04 DIST FIBER 6S		
7N			
8N			
9N	PATCH TO R02-R04 DIST FIBER 9S		SURVEILLANCE CIRCUIT: DR-R04-SURV-05
11N	PATCH TO R02-R04 DIST FIBER 10S		
11N			
12N			
13N	PATCH TO R02-R04 DIST FIBER 13S		SURVEILLANCE CIRCUIT: DR-R01-SURV-07
14N	PATCH TO R02-R04 DIST FIBER 14S		
15N			
16N			
17N	PATCH TO R02-R04 DIST FIBER 17S		SUVEILLANCE CIRCUIT: DR-R04-SURV-09
18N	PATCH TO R02-R04 DIST FIBER 18S		
19N			
20N			
21N	PATCH TO R02-R04 DIST FIBER 21S		SURVEILLANCE CIRCUIT: DR-R04-DMS-01
22N	PATCH TO R02-R04 DIST FIBER 22S		
23N	PATCH TO R02-R04 DIST FIBER 23S		SURVEILLANCE CIRCUIT: DR-R01-DMS-03
24N	PATCH TO R02-R04 DIST FIBER 24S		
25N	PATCH TO R02-R04 DIST FIBER 25S		SURVEILLANCE CIRCUIT: DR-R04-DMS-05
26N	PATCH TO R02-R04 DIST FIBER 26S		
27N	PATCH TO DR-9B R02 FIBER 1		CCTV: DR-9B
28N	PATCH TO DR-8A R02 FIBER 1		CCTV: DR-8A
29N	PATCH TO DR-6C R02 FIBER 1		CCTV: DR-6C
30N	PATCH TO DR-5A R02 FIBER 1		CCTV: DR-5A
31N	PATCH TO DR-4A R02 FIBER 1		CCTV: DR-4A
32N	PATCH TO DR-3B R02 FIBER 1		CCTV: DR-3B
33N	PATCH TO R02-R04 DIST FIBER 34S		GIG-E CCTV, DATA, AND SURV. GIG-E CCTV, DATA, AND SURV.
34N	PATCH TO R02-R04 DIST FIBER 35S		
35N	SERIAL DEVICE SERVER	TX	SHELTER ALARMS
36N	SERIAL DEVICE SERVER	RX	
37N			
38N			
39N			
40N			
41N			
42N			
43N			
44N			
45N			
46N			
47N			
48N			
49N	PATCH TO R02-R04 DIST FIBER 44S		EMERGENCY TRAFFIC PATROL
50N	PATCH TO R02-R04 DIST FIBER 45S		
51N			
52N			
53N			
54N			
55N			
56N			
57N			
58N			
59N			
60N			

MAINTENANCE YARD SHELTER (R02) 60-FIBER DISTRIBUTION TERMINATION TABLE

FIBER OPTIC CABLE R02 R04, 1-48, DIST	TERMINATION	FUNCTION	COMMENTS
1S	PATCH TO R01-R02 DIST FIBER 1N		SURVEILLANCE CIRCUIT: DR-R04-SURV-01
2S	PATCH TO R01-R02 DIST FIBER 2N		
3S			
4S			
5S	PATCH TO R01-R02 DIST FIBER 5N		SURVEILLANCE CIRCUIT: DR-R01-SURV-03
6S	PATCH TO R01-R02 DIST FIBER 6N		
7S			
8S			
9S	PATCH TO R01-R02 DIST FIBER 9N		SURVEILLANCE CIRCUIT: DR-R04-SURV-05
10S	PATCH TO R01-R02 DIST FIBER 10N		
11S			
12S			
13S	PATCH TO R01-R02 DIST FIBER 13N		SURVEILLANCE CIRCUIT: DR-R01-SURV-07
14S	PATCH TO R01-R02 DIST FIBER 14N		
15S			
16S			
17S	PATCH TO R01-R02 DIST FIBER 17N		SUVEILLANCE CIRCUIT: DR-R04-SURV-09
18S	PATCH TO R01-R02 DIST FIBER 18N		
19S			
20S			
21S	PATCH TO R01-R02 DIST FIBER 21N		SURVEILLANCE CIRCUIT: DR-R04-DMS-01
22S	PATCH TO R01-R02 DIST FIBER 22N		
23S	PATCH TO R01-R02 DIST FIBER 23N		SURVEILLANCE CIRCUIT: DR-R01-DMS-03
24S	PATCH TO R01-R02 DIST FIBER 24N		
25S	PATCH TO R01-R02 DIST FIBER 25N		SURVEILLANCE CIRCUIT: DR-R04-DMS-05
26S	PATCH TO R01-R02 DIST FIBER 26N		
27S	PATCH TO DR-8C R02 FIBER 1		CCTV: DR-8C
28S	PATCH TO DR-7D R02 FIBER 1		CCTV: DR-7D
29S	PATCH TO DR-7A R02 FIBER 1		CCTV: DR-7A
30S	PATCH TO DR-6A R02 FIBER 1		CCTV: DR-6A
31S	PATCH TO DR-5B R02 FIBER 1		CCTV: DR-5B
32S	PATCH TO DR-5C R02 FIBER 1		CCTV: DR-3C
33S	PATCH TO DR-3A R02 FIBER 1		CCTV: DR-3A
34S	PATCH TO R01-R02 DIST FIBER 33N		GIG-E CCTV, DATA, AND SURV. GIG-E CCTV, DATA, AND SURV.
35S	PATCH TO R01-R02 DIST FIBER 34N		
36S	SERIAL DEVICE SERVER	TX	SHELTER ALARMS
37S	SERIAL DEVICE SERVER	RX	
38S	PATCH TO R01-R02 DIST FIBER 49N		EMERGENCY TRAFFIC PATROL
39S	PATCH TO R01-R02 DIST FIBER 50N		
40S			
41S			
42S			
43S			
44S			
45S			
46S			
47S			
48S			

MAINTENANCE YARD SHELTER (R02) 48-FIBER DISTRIBUTION TERMINATION TABLE

COMM-118



REVISIONS	
NAME	DATE
REVISION	02/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57

MAINTENANCE YARD SHELTER (R02)
FIBER OPTIC TERMINATION TABLES
(SHEET 1 OF 3)

SCALE: NTS
DATE: October 29, 2004

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02/09/2005 09:05:18 AM

* pgs 885-886 are Deleted *

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-0311	COOK	976	887
STA. TO STA.			
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT	
62583			

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FIBER OPTIC CABLE #01 R02, 1-48, DIST #01 R05, 1-12, DIST		TERMINATION	FUNCTION	COMMENTS
1S				
2S				
3S				SURVEILLANCE CIRCUIT: DR-R04-SURV-01
4S				
5S	SERIAL DEVICE SERVER		TX	
6S	SERIAL DEVICE SERVER		RX	
7S			BACKUP	SURVEILLANCE CIRCUIT: DR-R01-SURV-03
8S			BACKUP	
9S				
10S				SURVEILLANCE CIRCUIT: DR-R04-SURV-05
11S				
12S				
13S	SERIAL DEVICE SERVER		TX	
14S	SERIAL DEVICE SERVER		RX	
15S			BACKUP	SURVEILLANCE CIRCUIT: DR-R01-SURV-07
16S			BACKUP	
17S				
18S				SURVEILLANCE CIRCUIT: DR-R04-SURV-09
19S				
20S				
21S				SURVEILLANCE CIRCUIT: DR-R04-DMS-01
22S				SURVEILLANCE CIRCUIT: DR-R01-DMS-03
23S	SERIAL DEVICE SERVER		TX	
24S	SERIAL DEVICE SERVER		RX	
25S				SURVEILLANCE CIRCUIT: DR-R04-DMS-05
26S				
27S				CCTV: DR-9B
28S	FIBER OPTIC VIDEO RECEIVER		CCTV VIDEO TX/RX	CCTV: DR-8A
29S				CCTV: DR-6C
30S				CCTV: DR-5A
31S				CCTV: DR-4A
32S				CCTV: DR-3B
33S	GIG-E SWITCH		TX	GIG-E TO I-57 SHELTER (R04)
34S	GIG-E SWITCH		RX	GIG-E TO I-57 SHELTER (R04)
35S	SERIAL DEVICE SERVER		TX	SHELTER ALARMS
36S	SERIAL DEVICE SERVER		RX	SHELTER ALARMS
37S				
38S				
39S				
40S				
41S				
42S				
43S				
44S				
45S				
46S				
47S				
48S				
49S	GIG-E SWITCH		TX	
50S	GIG-E SWITCH		RX	
51S				
52S				
53S				
54S				
55S				GIG-E TO EMERGENCY TRAFFIC PATROL
56S				
57S				
58S				
59S				
60S				

I-55 SHELTER (R01) 60-FIBER DISTRIBUTION TERMINATION PANEL

FIBER OPTIC CABLE #01 R03, 1-48, DIST		TERMINATION	FUNCTION	COMMENTS
1S				
2S	SERIAL DEVICE SERVER		TX	
3S	SERIAL DEVICE SERVER		RX	
4S			BACKUP	SURVEILLANCE CIRCUIT: DR-R01-SURV-02
5S			BACKUP	
6S				
7S				SURVEILLANCE CIRCUIT: DR-R04-SURV-04
8S				
9S	SERIAL DEVICE SERVER		TX	
10S	SERIAL DEVICE SERVER		RX	
11S			BACKUP	SURVEILLANCE CIRCUIT: DR-R01-SURV-06
12S			BACKUP	
13S				
14S				
15S				SURVEILLANCE CIRCUIT: DR-R04-SURV-08
16S				
17S	SERIAL DEVICE SERVER		TX	
18S	SERIAL DEVICE SERVER		RX	
19S			BACKUP	SURVEILLANCE CIRCUIT: DR-R01-SURV-10
20S			BACKUP	
21S	SERIAL DEVICE SERVER		TX	
22S	SERIAL DEVICE SERVER		RX	SURVEILLANCE CIRCUIT: DR-R01-DMS-02
23S				SURVEILLANCE CIRCUIT: DR-R04-DMS-04
24S				SURVEILLANCE CIRCUIT: DR-R01-DMS-06
25S	SERIAL DEVICE SERVER		TX	
26S	SERIAL DEVICE SERVER		RX	
27S				
28S				
29S				
30S				
31S				
32S				
33S				
34S				
35S				
36S				
37S				
38S				
39S				
40S				
41S				
42S				
43S				
44S				
45S				
46S				
47S				
48S				

I-55 SHELTER (R01) 48-FIBER DISTRIBUTION TERMINATION PANEL



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REVISIONS	
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REVISION	02/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57

I-55 SHELTER (R01)
FIBER OPTIC TERMINATION TABLES
(SHEET 1 OF 6)

SCALE: NOT TO SCALE
DATE: October 29, 2004

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10-27-05 10:47:54 AM

FIBER OPTIC CABLE R01 R03, I-96, BB	TERMINATION	FUNCTION	COMMENTS
1S	GIG-E SWITCH	TX	GIG-E TO I-57 SHELTER (R04)
2S	GIG-E SWITCH	RX	GIG-E TO I-57 SHELTER (R04)
3S			
4S			
5S	SONET MULTIPLEX	TX	SONET TO I-294/I-57 SHELTER
6S	SONET MULTIPLEX	RX	SONET TO I-294/I-57 SHELTER
7S	SERIAL DEVICE SERVER	TX	HAR SHELTER ALARMS
8S	SERIAL DEVICE SERVER	RX	HAR SHELTER ALARMS
9S	PATCH TO EXISTING DAN RYAN FIBER XN		HAR AUDIO TO ROOSEVELT HAR
10S	PATCH TO EXISTING DAN RYAN FIBER XN		HAR AUDIO TO ROOSEVELT HAR
11S			
12S			
13S			CCTV: DR-8B
14S			CCTV: DR-7E
15S	FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO TX/RX	CCTV: DR-7C
16S			CCTV: DR-6D
17S	FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO TX/RX	CCTV: DR-6B
18S	FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO TX/RX	CCTV: DR-4C
19S			CCTV: DR-3D
20S			
21S			
22S			
23S			
24S			
25S			
26S			
27S			
28S			
29S			
30S			
31S			
32S			
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34S			
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41S			
42S			
43S			
44S			
45S			
46S			
47S			
48S			

FIBER OPTIC CABLE R01 R03, I-96, BB	TERMINATION	FUNCTION	COMMENTS
49S			
50S			
51S			
52S			
53S			
54S			
55S			
56S			
57S			
58S			
59S			
60S			
61S			
62S			
63S			
64S			
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93S			
94S			
95S			
96S			

I-55 SHELTER (R01) 96-FIBER BACKBONE TERMINATION PANEL

NOTES:

- CONTRACTOR SHALL COORDINATE FIBER ASSIGNMENTS WHEN PATCHING TO EXISTING DAN RYAN FIBER RUNNING TO THE HALSTED FIBER INTERCONNECT SHELTER.

REVISIONS	
NAME	DATE
REVISION	02/11/05

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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-031I	COOK	976	890
STA.	TO STA.		
FED. ROAD DIST. NO. - ILLINOIS	FED. AID PROJECT		
62583			

EXISTING FIBER OPTIC CABLE N TO HALSTED INTER.	TERMINATION	FUNCTION	COMMENTS
1N	PATCH TO EXISTING I-55/KD FIBER 1E	CMS CONTROLS	CMS-7 CONTROLS
2N			
3N			
4N			
5N			
6N			
7N			
8N			
9N			
11N			
11N			
12N			
13N			
14N			
15N			
16N			
17N			
18N			
19N			
20N			
21N	EXISTING T1 EQUIPMENT	TX	I-55 T1 SURVEILLANCE DATA KING DRIVE TO TRI-STATE
22N	EXISTING T1 EQUIPMENT	RX	I-55 T1 SURVEILLANCE DATA KING DRIVE TO TRI-STATE
23N	PATCH TO EXISTING I-55/WS FIBER 11W	CMS CONTROLS	CMS-23 CONTROLS
24N	PATCH TO EXISTING I-55/WS FIBER 21W	CMS CONTROLS	CMS-5 CONTROLS
25N			
26N			
27N			
28N			
29N			
30N			
31N			
32N			
33N			
34N			
35N			
36N			
37N			
38N			
39N			
40N			
41N			
42N			
43N			
44N			
45N			
46N			
47N			
48N			

EXISTING FIBER OPTIC CABLE N TO HALSTED INTER.	TERMINATION	FUNCTION	COMMENTS
49N			
50N			
51N			
52N			
53N			
54N			
55N			
56N			
57N			
58N			
59N			
60N			
61N			
62N			
63N			
64N			
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68N			
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93N			
94N			
95N			
96N			

EXISTING DAN RYAN 96-FIBER CABLE TERMINATION TABLE

Edwards AND Kelcey
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 CHICAGO, IL 60606
 PHONE: (312) 251-3000
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 WEB: WWW.EKCORP.COM

NOTES:
 1. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER THE FIBER ASSIGNMENTS FOR NEW COMMUNICATION EQUIPMENT (INCLUDING SONET, GIG-E, DMS, AND HAR) ON EXISTING DAN RYAN-TO-HALSTED INTERCONNECT FIBER.

REVISIONS	
NAME	DATE
REVISION	02/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57
 I-55 SHELTER (R01)
 FIBER OPTIC TERMINATION TABLES
 (SHEET 4 OF 6)
 SCALE: NOT TO SCALE
 DATE: October 29, 2004
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02/09/2005 09:01:45 AM

EXISTING I-55 FIBER OPTIC CABLE TO KING DRIVE	TERMINATION	FUNCTION	COMMENTS
1E	PATCH TO EXISTING DAN RYAN FIBER IN	CMS CONTROLS	CMS-7 CONTROLS
2E			
3E			
4E			
5E			
6E			
7E			
8E			
9E			
11E			
11E			
12E			
13E			
14E			
15E			
16E			
17E			
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44E			
45E			
46E			
47E			
48E			

EXISTING I-55 FIBER OPTIC CABLE TO WILLOW SPRINGS	TERMINATION	FUNCTION	COMMENTS
1W	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO RX/TX	CCTV CABINET R49A WILLOW SPRINGS ROAD (CAMERA #4)
2W	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO RX/TX	CCTV CABINET R54 LAGRANGE ROAD (CAMERA #5)
3W	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO RX/TX	CCTV CABINET 44 8600 WEST (CAMERA #6)
4W	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO RX/TX	CCTV CABINET 40 FIRST AVENUE (CAMERA #7)
5W	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO RX/TX	CCTV CABINET 27 7500 WEST (CAMERA #8)
6W	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO RX/TX	CCTV CABINET 21 EAST OF HARLEM (CAMERA #9)
7W	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO RX/TX	CCTV CABINET 26 EAST OF CENTRAL (CAMERA #10)
8W	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO RX/TX	CCTV CABINET 13 EAST OF CICERO (CAMERA #11)
9W	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO RX/TX	CCTV CABINET CMS-23 WEST OF FIRST AVE (CAMERA #12)
11W			
11W	PATCH TO DAN RYAN FIBER 23N	CMS CONTROLS	CMS-23 CONTROLS
12W			
13W	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO RX/TX	CCTV CABINET R47 LAGRANGE ROAD (CAMERA #13)
14W	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO RX/TX	CCTV CABINET R43 9700 WEST (CAMERA #14)
15W	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO RX/TX	CCTV CABINET 42 B&O RAILROAD (CAMERA #15)
16W	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO RX/TX	CCTV CABINET 38 FIRST AVENUE (CAMERA #16)
17W	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO RX/TX	CCTV CABINET 23 HARLEM (CAMERA #17)
18W	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO RX/TX	CCTV CABINET 32 WEST OF CENTRAL (CAMERA #18)
19W	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO RX/TX	CCTV CABINET 15 CICERO AVENUE (CAMERA #19)
20W	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO RX/TX	CCTV CABINET CMS-5 WEST OF KEDZIE (CAMERA #20)
21W	PATCH TO DAN RYAN FIBER 24N	CMS CONTROLS	CMS-5 CONTROLS
22W			
23W			
24W			
25W			
26W			
27W			
28W			
29W			
30W			
31W			
32W			
33W			
34W			
35W			
36W			
37W			
38W			
39W			
40W			
41W			
42W			
43W			
44W			
45W			
46W			
47W			
48W			

EXISTING I-55 FIBER OPTIC CABLE TERMINATION TABLES

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- NOTES:
- EXISTING TSC FIBER OPTIC VIDEO RECEIVERS RELOCATED FROM TSC TO THE I-55 SHELTER AS PART OF THE WORK UNDER THIS CONTRACT.
 - FIBER ASSIGNMENTS SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.

REVISIONS	
NAME	DATE
REVISION 2	02/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57
 I-55 SHELTER (R01)
 FIBER OPTIC TERMINATION TABLES
 (SHEET 5 OF 6)
 SCALE: NOT TO SCALE
 DATE: October 29, 2004
 DRAWN BY: DH1
 CHECKED BY: JEZ



02/08/2005 08:03:08 AM

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2003-031I	COOK	976	892
STA. TO STA.		FED. AID PROJECT	
62583			

EXISTING FIBER OPTIC CABLE	TERMINATION	FUNCTION	COMMENTS
1	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO TX/RX	BEO CCTV I-55/DAN RYAN INTERCHANGE (CAMERAS 1, 2, 3, 4)
2	EXISTING FIBER OPTIC VIDEO RECEIVER	CCTV VIDEO TX/RX	BEO CCTV I-55/DAN RYAN INTERCHANGE (CAMERAS 5, 6, 7)
3			
4			
5	RS-422 CAMERA CONTROL TRANSCEIVER	CAMERA CONTROL	
6			
7			
8			
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11			
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EXISTING MICROWAVE HUT 48F CABLE TERMINATION TABLE

NOTES:

- EXISTING TSC FIBER OPTIC VIDEO RECEIVERS RELOCATED FROM TSC TO THE I-55 SHELTER AS PART OF THE WORK UNDER THIS CONTRACT.
- FIBER ASSIGNMENTS SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.

REVISIONS	
NAME	DATE

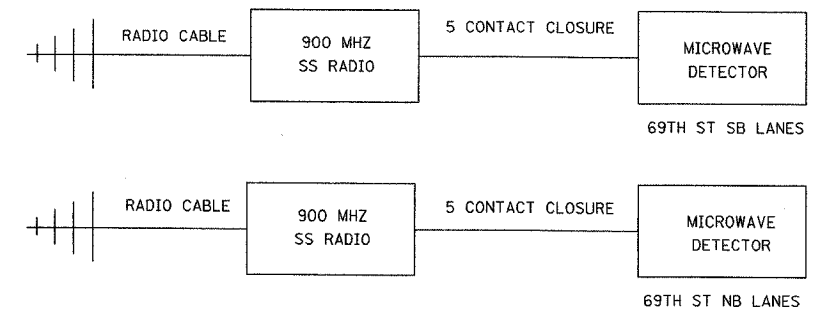
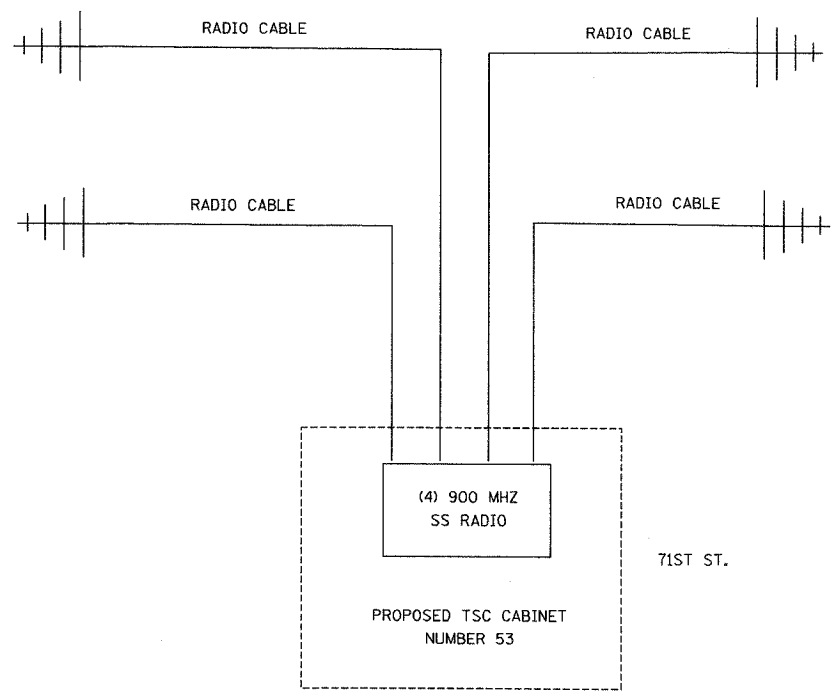
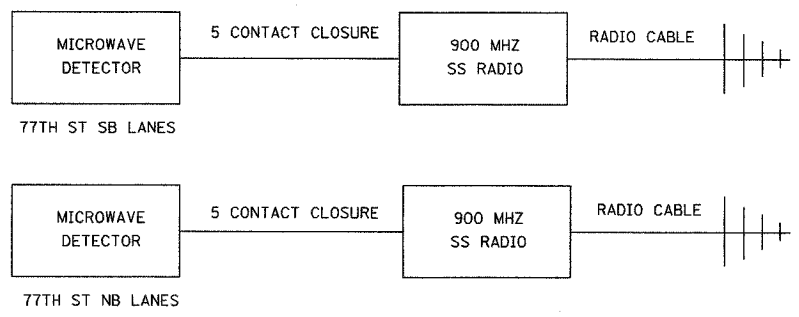
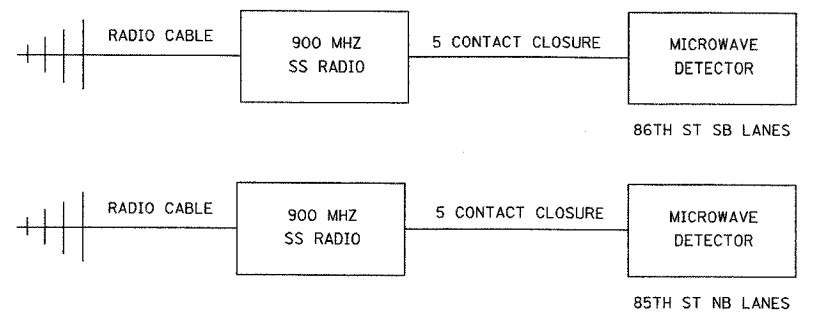
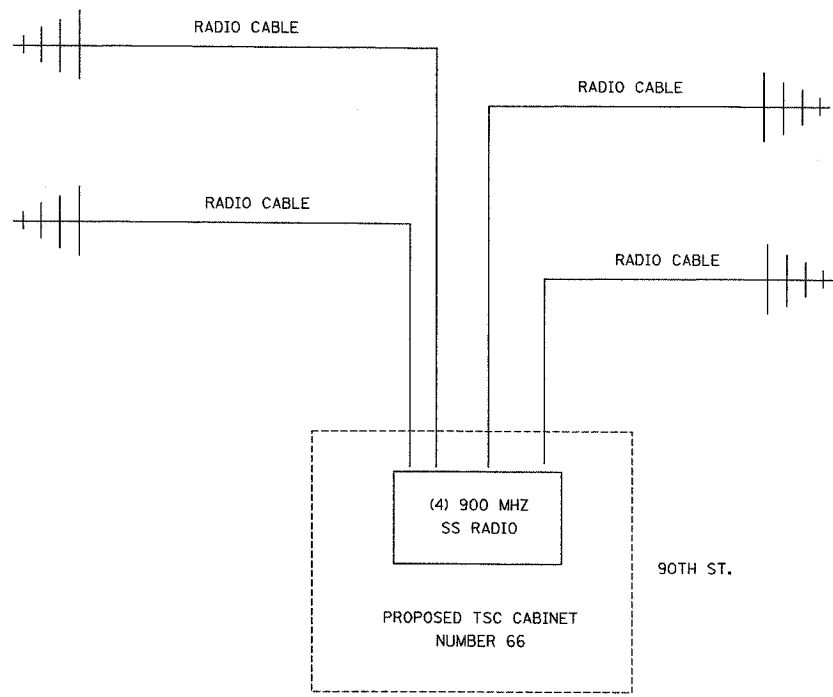
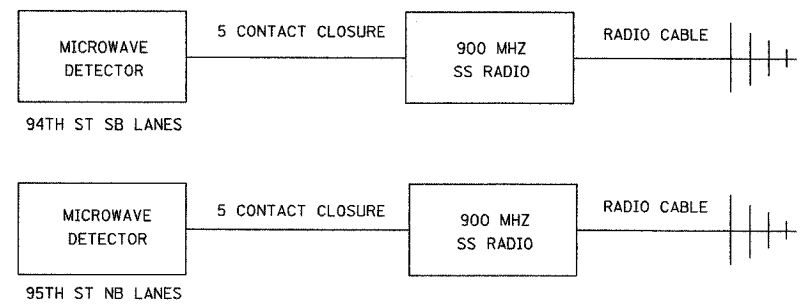
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 31st STREET to I-57
 I-55 SHELTER (R01)
 FIBER OPTIC TERMINATION TABLES
 (SHEET 6 OF 6)
 SCALE: NOT TO SCALE DRAWN BY: DHI
 DATE: October 29, 2004 CHECKED BY: JEZ



COMM-126

11/22/2004 04:28 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	893
STA.		TO STA.		
FED. ROAD DIST. NO. - ILLINOIS		FED. AID PROJECT		
62583				



NOTE:
1. SEE SHEETS DT-53, DT-54, DT-55 FOR SITE INSTALLATION DETAILS.

REVISIONS	
NAME	DATE

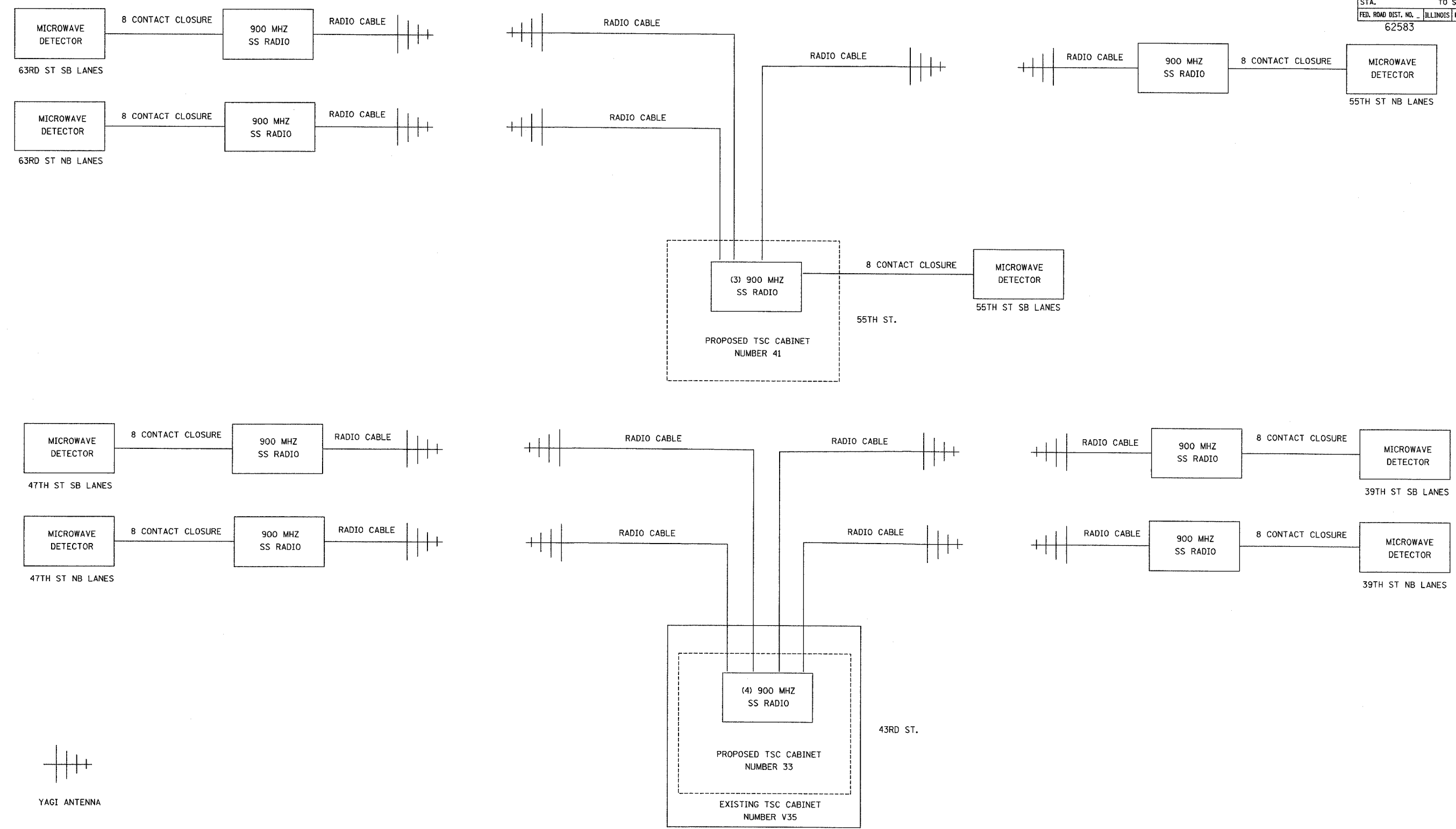
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57
TEMPORARY DETECTION
COMMUNICATIONS LAYOUT
(Sheet 1 of 3)
SCALE: N.T.S. DRAWN BY: DHI
DATE: October 29, 2004 CHECKED BY: JEZ

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

COMM-127

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	294
STA.		TO STA.		
62583		ILLINOIS FED. AID PROJECT		



NOTE:
 1. SEE SHEETS DT-53, DT-54, DT-55 FOR SITE INSTALLATION DETAILS.
 2. EXISTING TSC CABINETS TO BE UTILIZED UNTIL REMOVAL.

REVISIONS	
NAME	DATE

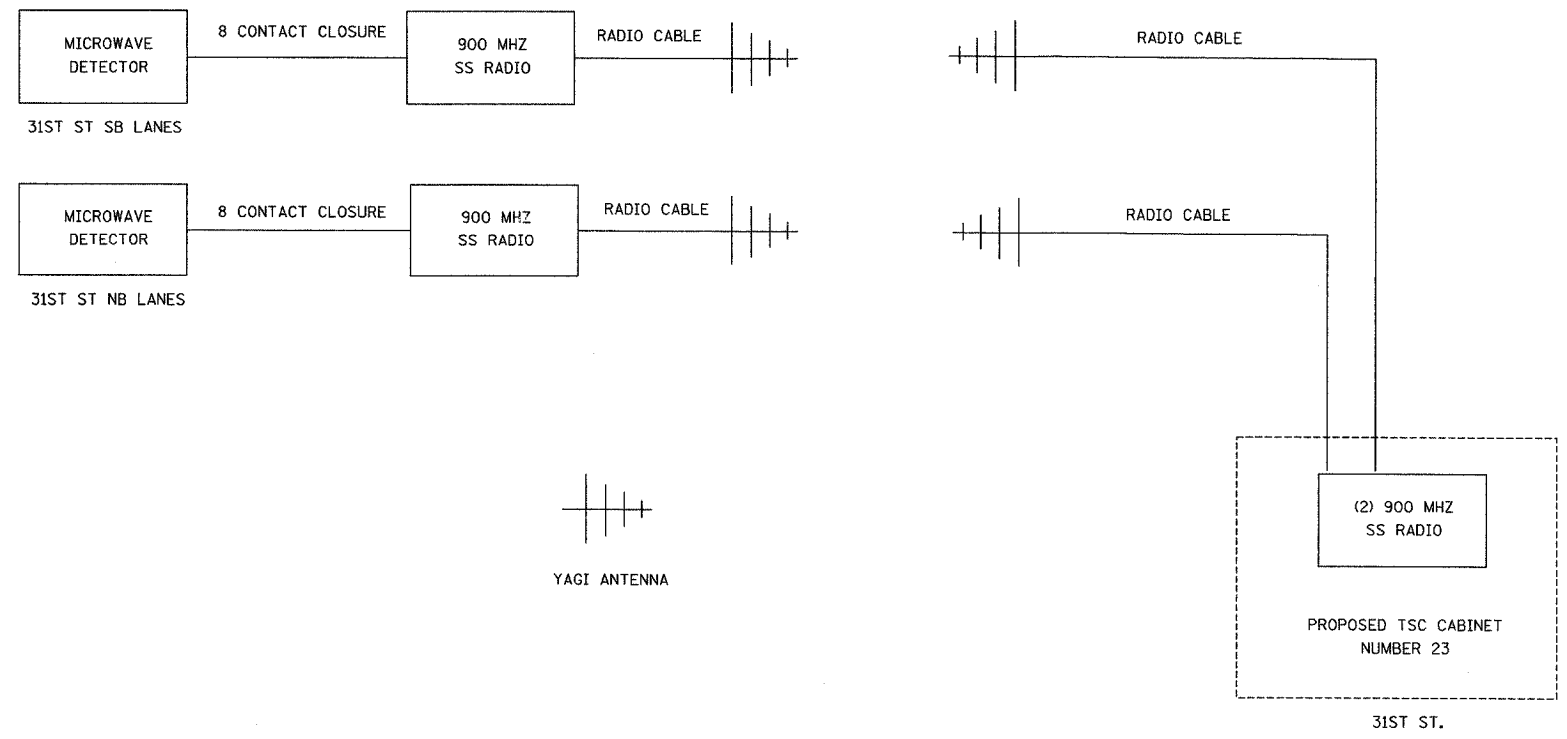
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 31st STREET to I-57
 TEMPORARY DETECTION
 COMMUNICATIONS LAYOUT
 (Sheet 2 of 3)
 SCALE: N.T.S. DRAWN BY: DHI
 DATE: October 29, 2004 CHECKED BY: JEZ

Edwards AND Kelcey
 ONE NORTH FRANKLIN
 CHICAGO, IL 60606
 PHONE: (312) 251-3000
 FAX: (312) 251-3015
 WEB: WWW.EKCORP.COM

COMM-128

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	2003-0311	COOK	976	895
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62583				



NOTE:
1. SEE SHEETS DT-53, DT-54, DT-55 FOR SITE INSTALLATION DETAILS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
31st STREET to I-57
TEMPORARY DETECTION
COMMUNICATIONS LAYOUT
(Sheet 3 of 3)
SCALE: N.T.S. DRAWN BY: DHI
DATE: October 29, 2004 CHECKED BY: JEZ

Edwards AND Kelcey
ONE NORTH FRANKLIN
CHICAGO, IL 60606
PHONE: (312) 251-3000
FAX: (312) 251-3015
WEB: WWW.EKCORP.COM

COMM-129

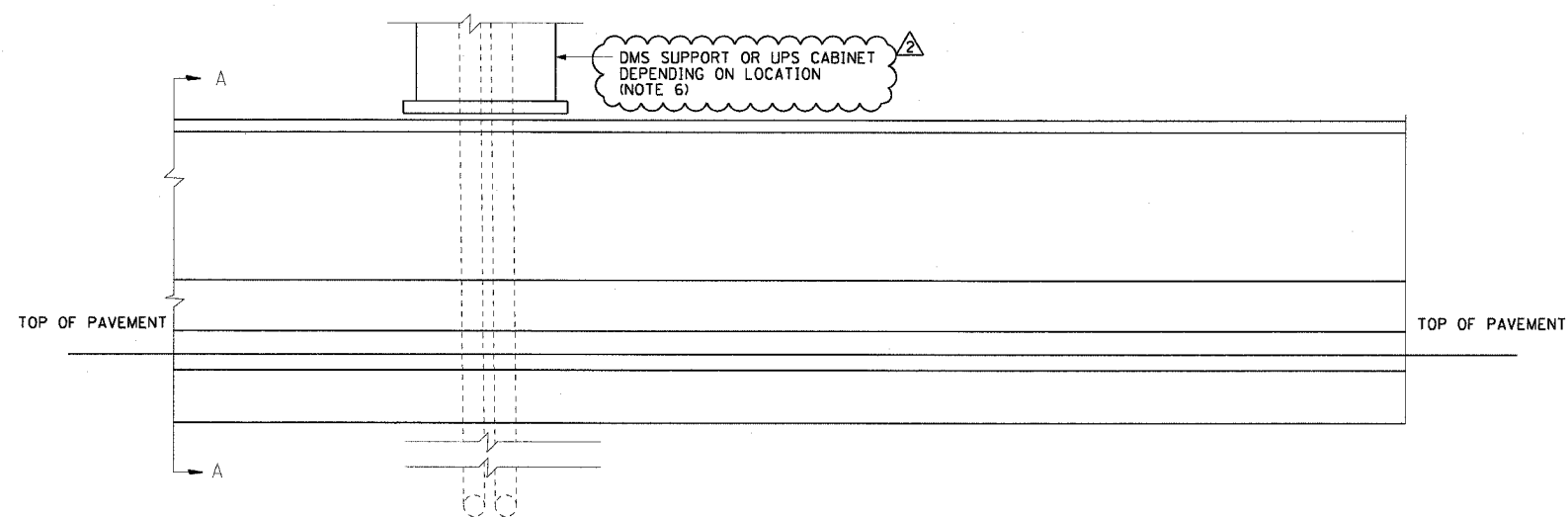
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2003-0311	COOK	976	896
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

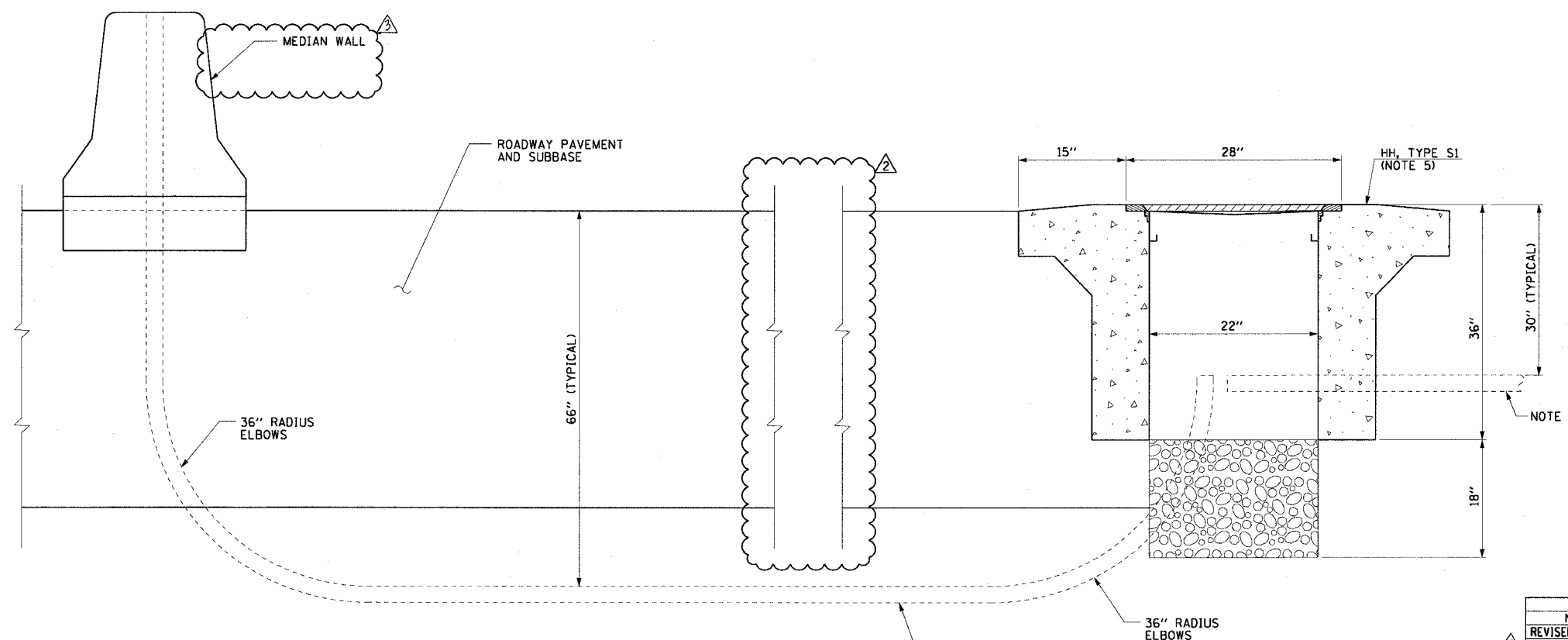
62583

NOTES:

- SEE DRAWINGS ME-01 AND ME-02 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
- UNLESS OTHERWISE STATED, ALL CONDUIT TO BE FURNISHED AND INSTALLED BY OTHERS UNDER A SEPARATE CONTRACT.
- UNLESS OTHERWISE STATED, ALL ELECTRIC CABLE TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT.
- CONDUIT AND CABLE SIZES AS SHOWN ON THE PLAN SHEETS DMS-01 THROUGH DMS-08.
- HANDHOLE AND CONDUIT ENTRY CONFIGURATION IS TYPICAL. CONDUITS MAY ALSO GO FROM THE WALL DIRECTLY TO A CONTROLLER CABINET DEPENDING ON LOCATION.
- WHEN CONDUITS ENTER SIGN TRUSS THEY SHALL ENTER ONE INTO EACH LEG.



1 MEDIAN WALL DUCT DETAIL ELEVATION
DT-01



2 SECTION A-A
DT-01

REVISIONS	
NAME	DATE
REVISED	1/21/05
REVISION	2/11/05

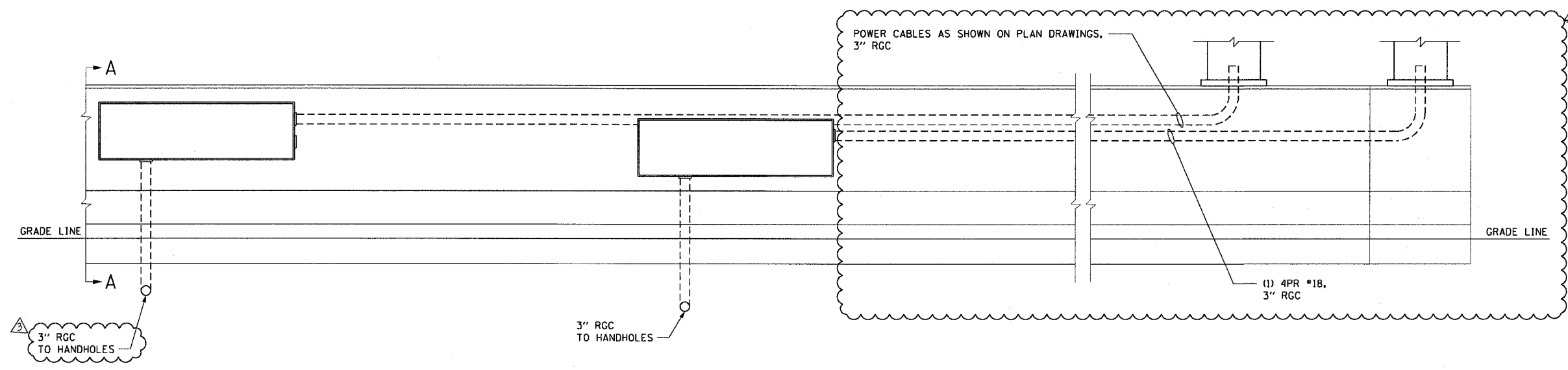
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
31st STREET TO I-57
**DUCT DETAIL FOR CANTELEVER MOUNTED
DMS (NO JUNCTION BOX IN BARRIER WALL)**

SCALE: NONE
DATE: October 29, 2004
DRAWN BY: HAR
CHECKED BY: BMW

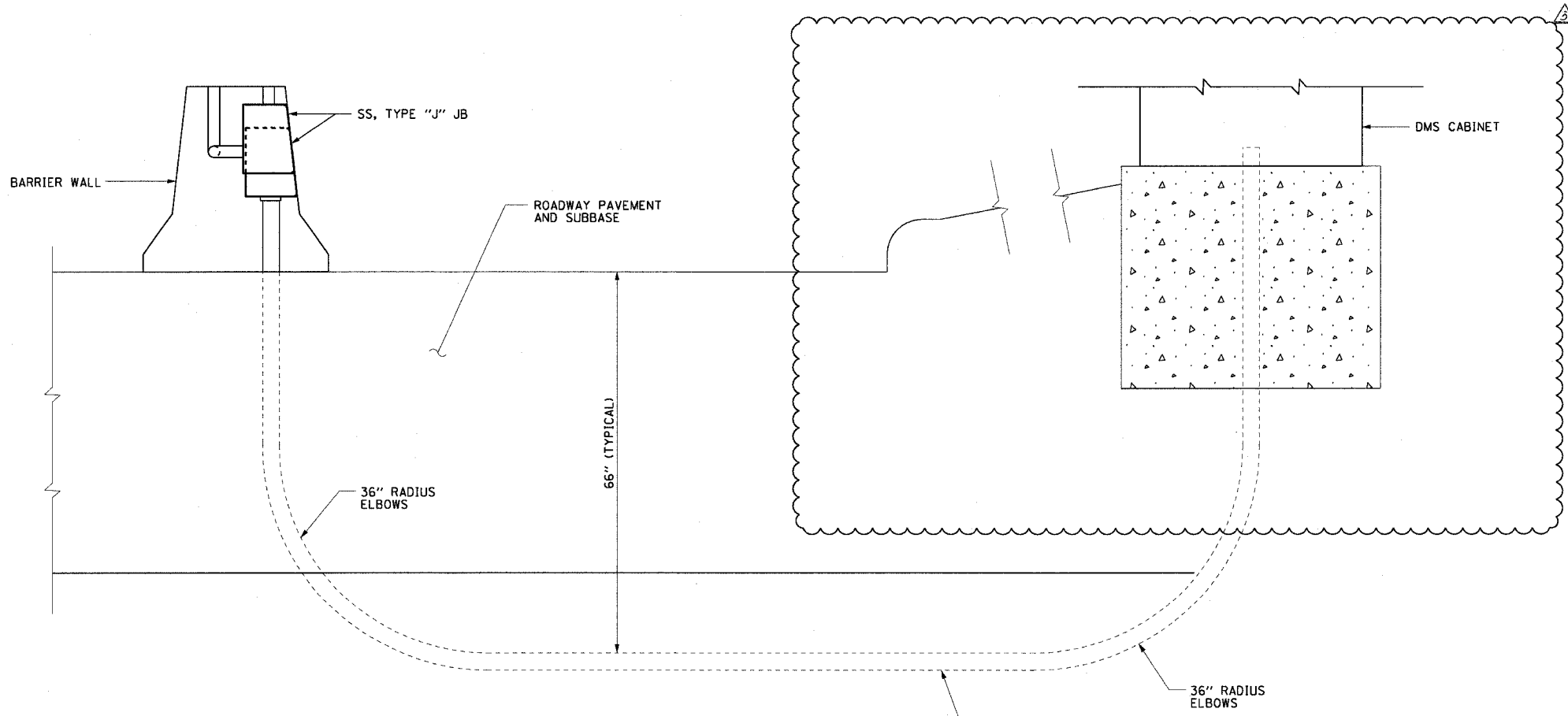
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2003-0311	COOK	976	897
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

62583

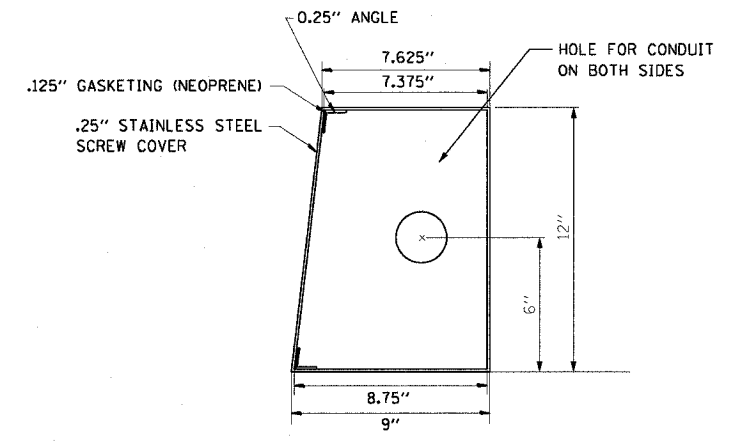
- NOTES:**
- SEE DRAWINGS ME-01 AND ME-02 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
 - ALL WELDS MUST BE CONTINUOUS AND LEAK PROOF. BOX AND COVER MUST BE .25" TYPE 316 STAINLESS STEEL.
 - ALL CONDUIT AND JUNCTION BOXES SHOWN IN BARRIER WALLS OR UNDER PAVEMENT ARE FURNISHED AND INSTALLED BY OTHERS UNDER A SEPARATE CONTRACT. ALL ELECTRIC CABLES ARE FURNISHED AND INSTALLED UNDER THIS CONTRACT.
 - CABINET AND CONDUIT ENTRY CONFIGURATION IS TYPICAL. SEE PLAN SHEETS DMS-01 THROUGH DMS-08 FOR SPECIFIC CONFIGURATION.
 - CONDUIT AND CABLE SIZES AS SHOWN ON THE PLAN SHEETS DMS-01 THROUGH DMS-08.



1 BARRIER WALL DUCT DETAIL ELEVATION
DT-02 NOT TO SCALE



2 SECTION A-A
DT-02



3 SPECIAL JUNCTION BOX TYPE "J" - SIDE VIEW
DT-02 NOTE 2

CTE ENGINEERS
CONSOR TOWNSEND ENHRODINE ENGINEERS, INC.
303 EAST WACKER DRIVE, SUITE 600
CHICAGO, ILLINOIS 60601-5202, PHONE: (312) 938-0300

REVISIONS	
NAME	DATE
REVISOR	1/21/05
REVISION	2/11/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
31st STREET TO I-57

DUCT DETAIL FOR DMS CONDUITS IN MEDIAN WALL

SCALE: NOT TO SCALE
DATE: October 29, 2004

DRAWN BY: KCM
CHECKED BY: BMW

DT-02

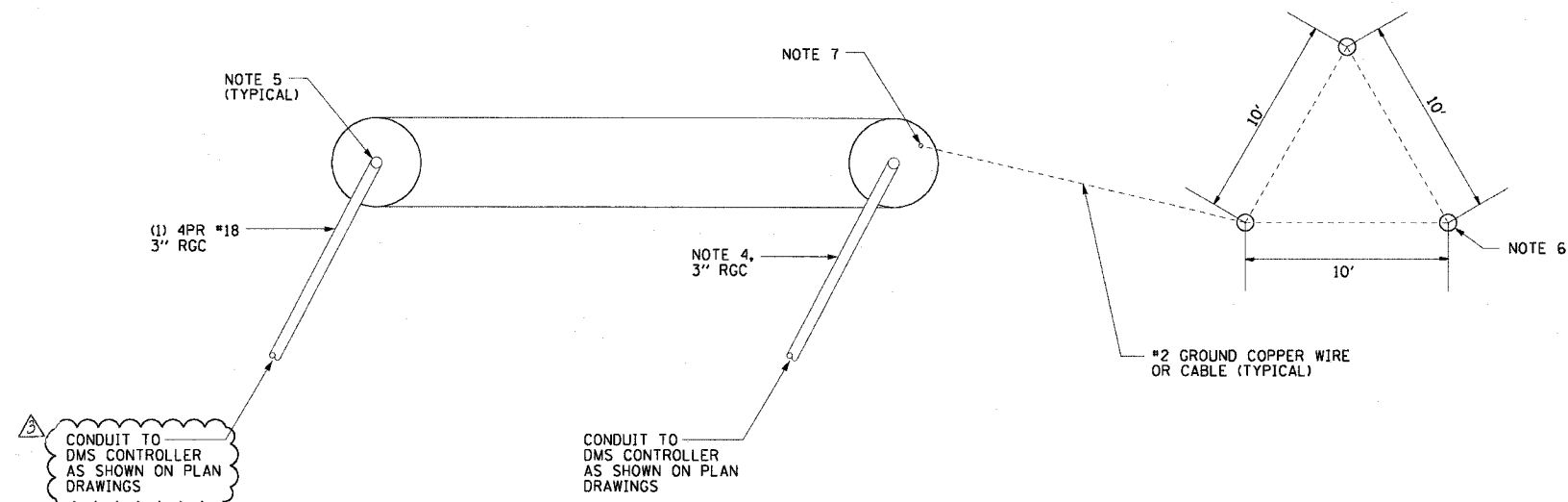
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2003-0311	COOK	976	898
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

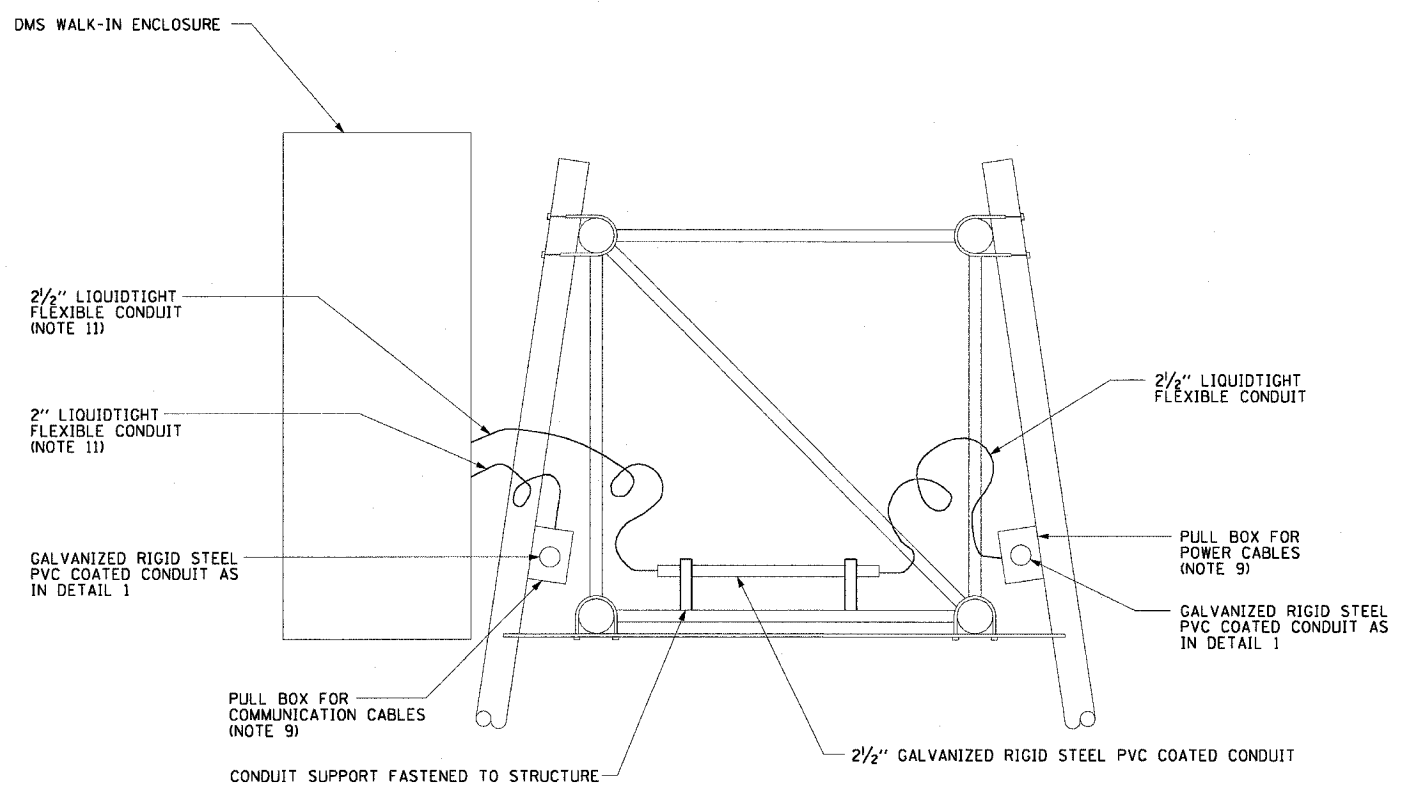
62583

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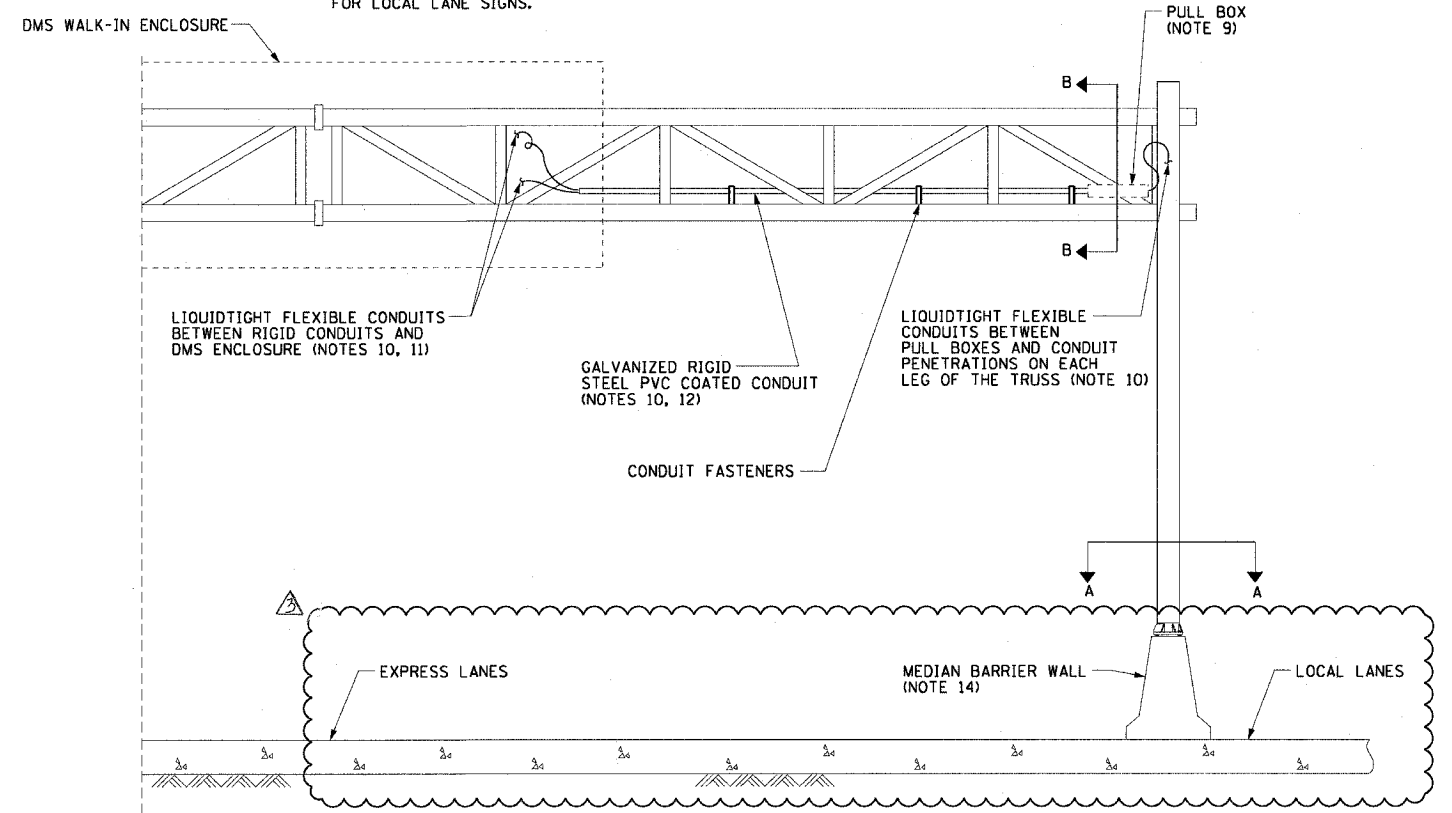
- SEE DRAWINGS ME-01 AND ME-02 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
- UNLESS OTHERWISE STATED, ALL CONDUIT TO BE FURNISHED AND INSTALLED BY OTHERS UNDER A SEPARATE CONTRACT.
- UNLESS OTHERWISE STATED, ALL ELECTRIC CABLE TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT.
- POWER CABLES MUST BE AS SHOWN ON DRAWINGS, DMS-01 THROUGH DMS-08.
- CONDUITS MUST BE STUBBED UP 6" INSIDE THE HOLLOW TRUSS SUPPORT. CABLES MUST BE PULLED TO THE TOP OF THE TRUSS SUPPORT THROUGH THE HOLLOW TRUSS. SEE DETAIL "3" ON THIS DRAWING. PULL WIRE MUST BE INSTALLED IN EACH OF THE SPARE CONDUITS. SPARE CONDUITS MUST BE CAPPED INSIDE THE TRUSS.
- 3/4" X 10' LONG, COPPER WELD GROUND ROD DRIVEN INTO GROUND 9' (TYPICAL FOR 3).
- GROUND COPPER WIRE MUST BE TERMINATED TO THE ANCHOR ROD USING APPROVED CLAMPS FOR GROUNDING. THE ANCHOR ROD MUST BE GROUND OR FILED TO BRIGHT METAL AT CLAMP AND CABLE CONNECTION LOCATION. GROUNDING BUSHING MUST BE INSTALLED ON EACH CONDUIT AND TIED TO THE GROUNDING SYSTEM AT THE TRUSS SUPPORT FOUNDATION.
- ALL RODS, CABLES, CONDUITS, CAPS, AND CLAMPS ASSOCIATED WITH THE GROUNDING SYSTEM AT THE SUPPORT FOUNDATION WILL BE FURNISHED AND INSTALLED BY OTHERS UNDER A SEPARATE CONTRACT.
- 6" X 6" X 40" STAINLESS STEEL PULL BOX, WITH CONTINUOUS HINGED COVER (TYPICAL).
- CONDUITS MUST BE 2 1/2" FOR POWER CABLES AND 2" FOR COMMUNICATIONS CABLES.
- THE DYNAMIC MESSAGE SIGN MUST BE PENETRATED FROM THE BACK THROUGH THE OPENINGS PROVIDED BY THE DMS ENCLOSURE MANUFACTURER. CONNECTION BETWEEN THE CONDUIT AND THE DMS ENCLOSURE MUST BE LIQUIDTIGHT FLEXIBLE CONDUIT.
- CONDUITS MUST BE ROUTED LOW AND AS CLOSE AS POSSIBLE TO THE TRUSS SUPPORT, AND MUST BE FASTENED TO THE SUPPORT ON THE INSIDE.
- THE COST OF FURNISHING AND INSTALLING CONDUITS, CABLES, FASTENERS, PULL BOXES, AND LIQUIDTIGHT FLEXIBLE CONDUITS IS CONSIDERED INCIDENTAL TO THE COST OF DMS INSTALLATION.
- CONDUITS SHALL ENTER TRUSS LEGS THROUGH MEDIAN BARRIER WALL FOR EXPRESS LANE SIGNS AND THROUGH GROUND MOUNTED FOUNDATIONS NEXT TO OUTSIDE SHOULDER FOR LOCAL LANE SIGNS.



2 SECTION A-A, CONDUIT STUB-UP AT DMS FOUNDATION
DT-03 NOTE 8



3 SECTION B-B, PARTIAL SIDE ELEVATION OF SIGN SUPPORT
DT-03



1 PARTIAL FRONT ELEVATION OF SIGN SUPPORT
DT-03

REVISIONS		
NAME	DATE	
REVISION	1/21/05	
REVISION	2/11/05	

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
31st STREET TO I-57

DUCT AND MOUNTING DETAILS FOR FULL SPAN TRUSS MOUNTED DMS

SCALE: NONE
DATE: October 29, 2004
DRAWN BY: BHP
CHECKED BY: BWW

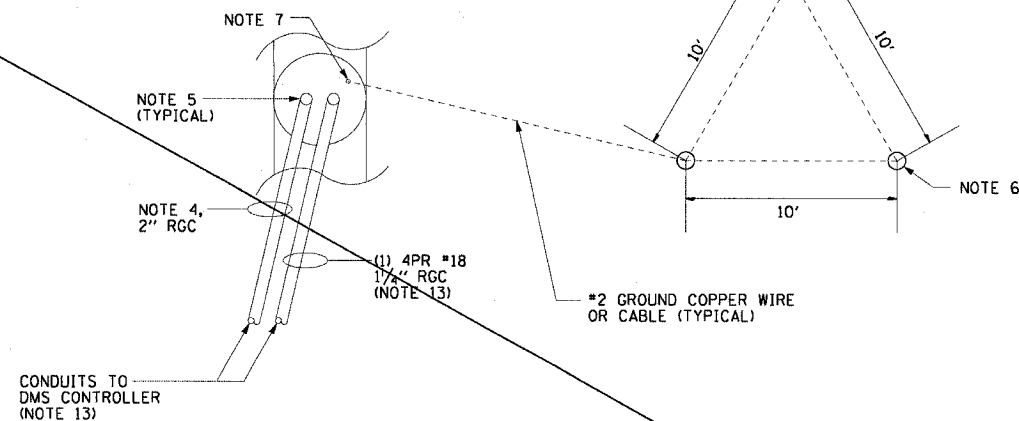
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2003-0311	COOK	976	899
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

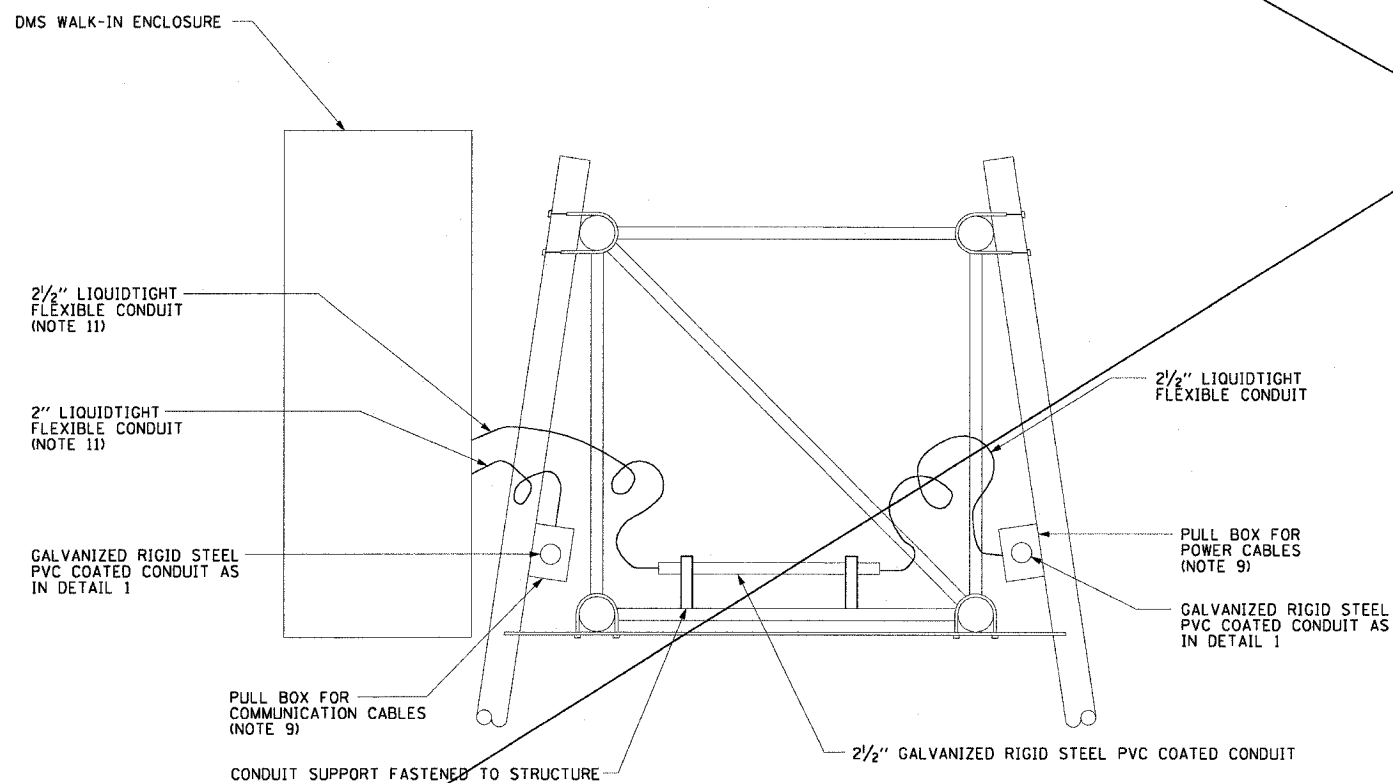
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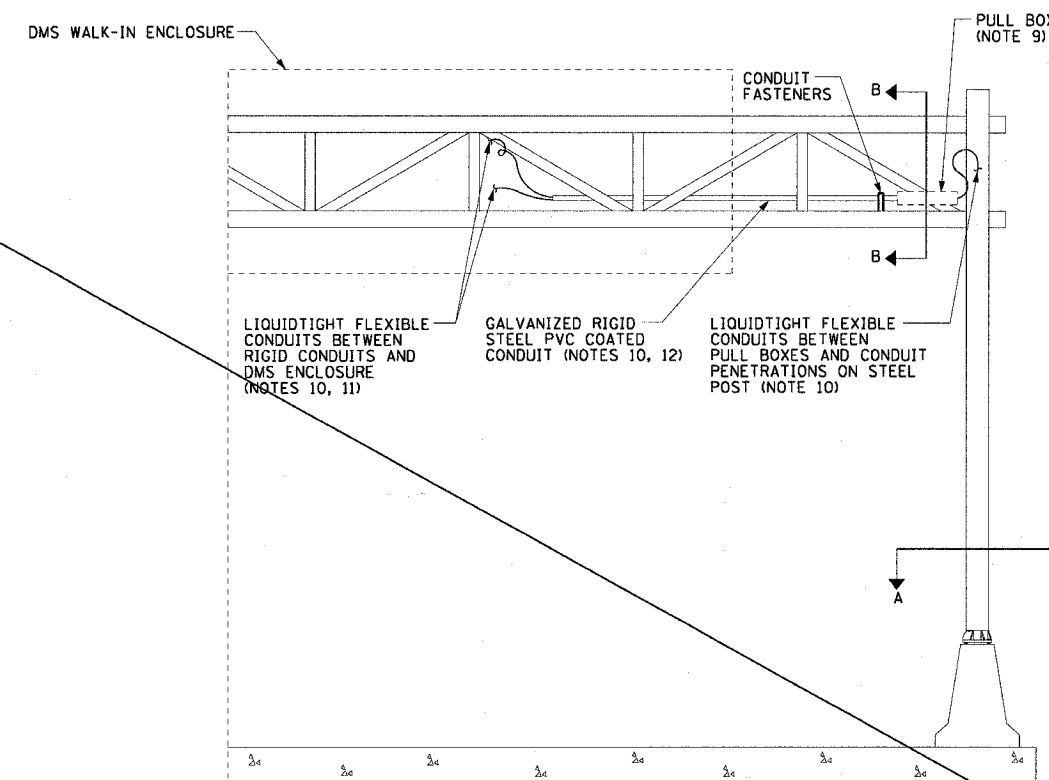
- SEE DRAWINGS ME-01 AND ME-02 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
- UNLESS OTHERWISE STATED, ALL CONDUIT TO BE FURNISHED AND INSTALLED BY OTHERS UNDER A SEPARATE CONTRACT.
- UNLESS OTHERWISE STATED, ALL ELECTRIC CABLE TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT.
- POWER CABLES MUST BE AS SHOWN ON DRAWINGS, DMS-01 THROUGH DMS-08.
- CONDUITS MUST BE STUBBED UP 6" INSIDE THE HOLLOW TRUSS SUPPORT. CABLES MUST BE PULLED TO THE TOP OF THE TRUSS SUPPORT THROUGH THE HOLLOW TRUSS. SEE DETAIL "3" ON THIS DRAWING. PULL WIRE MUST BE INSTALLED IN EACH OF THE SPARE CONDUITS. SPARE CONDUITS MUST BE CAPPED INSIDE THE TRUSS.
- 3/4" X 10' LONG, COPPER WELD GROUND ROD DRIVEN INTO GROUND 9' (TYPICAL FOR 3).
- GROUND COPPER WIRE MUST BE TERMINATED TO THE ANCHOR ROD USING APPROVED CLAMPS FOR GROUNDING. THE ANCHOR ROD MUST BE GROUND OR FILED TO BRIGHT METAL AT CLAMP AND CABLE CONNECTION LOCATION. GROUNDING BUSHING MUST BE INSTALLED ON EACH CONDUIT AND TIED TO THE GROUNDING SYSTEM AT THE TRUSS SUPPORT FOUNDATION.
- ALL RODS, CABLES, CONDUITS, CAPS, AND CLAMPS ASSOCIATED WITH THE GROUNDING SYSTEM AT THE SUPPORT FOUNDATION WILL BE FURNISHED AND INSTALLED BY OTHERS UNDER A SEPARATE CONTRACT.
- 6" X 6" X 40" STAINLESS STEEL PULL BOX, WITH CONTINUOUS HINGED COVER (TYPICAL).
- CONDUITS MUST BE 2 1/2" FOR POWER CABLES AND 2" FOR COMMUNICATIONS CABLES.
- THE DYNAMIC MESSAGE SIGN MUST BE PENETRATED FROM THE BACK THROUGH THE OPENINGS PROVIDED BY THE DMS ENCLOSURE MANUFACTURER. CONNECTION BETWEEN THE CONDUIT AND THE DMS ENCLOSURE MUST BE LIQUIDTIGHT FLEXIBLE CONDUIT.
- CONDUITS MUST BE ROUTED LOW AND AS CLOSE AS POSSIBLE TO THE TRUSS SUPPORT, AND MUST BE FASTENED TO THE SUPPORT ON THE INSIDE.
- CONDUITS ARE ROUTED TO UPS CABINET FOR SIGN, DMS-31. (1) 4PR #18 CABLE NOT NEEDED FOR DMS-31.
- THE COST OF FURNISHING AND INSTALLING CONDUITS, CABLES, FASTENERS, PULL BOXES, AND LIQUIDTIGHT FLEXIBLE CONDUITS IS CONSIDERED INCIDENTAL TO THE COST OF DMS INSTALLATION.



2 SECTION A-A, CONDUIT STUB-UP AT DMS FOUNDATION
DT-04 NOTE 8



3 SECTION B-B, PARTIAL SIDE ELEVATION OF SIGN SUPPORT
DT-04



1 PARTIAL FRONT ELEVATION OF SIGN SUPPORT
DT-04

CTE ENGINEERS
CONSER TOWNSEND ENVIRONMENTAL ENGINEERS, INC.
303 EAST WACKER DRIVE, SUITE 600
CHICAGO, ILLINOIS 60601-5202, PHONE: (312) 938-0300

REVISIONS	
NAME	DATE
REVISOR	1/21/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
31st STREET TO I-57

DMS MOUNTING DETAILS FOR
CANTILEVER SUPPORT

SCALE: NONE DRAWN BY: BHP/HR
DATE: October 29, 2004 CHECKED BY: BMW

Revised 2/11/05

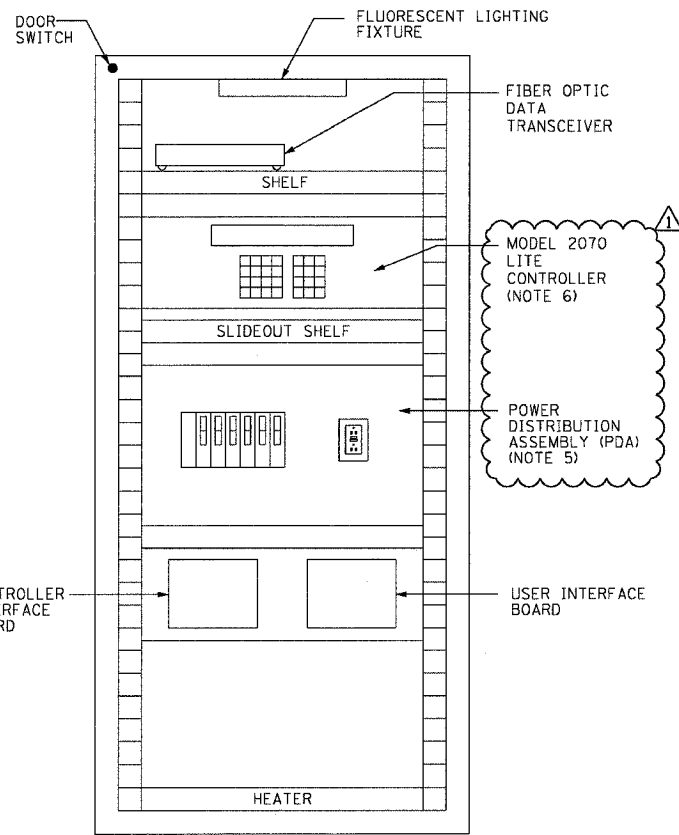
DT-04

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	2003-0311	COOK	976	900
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

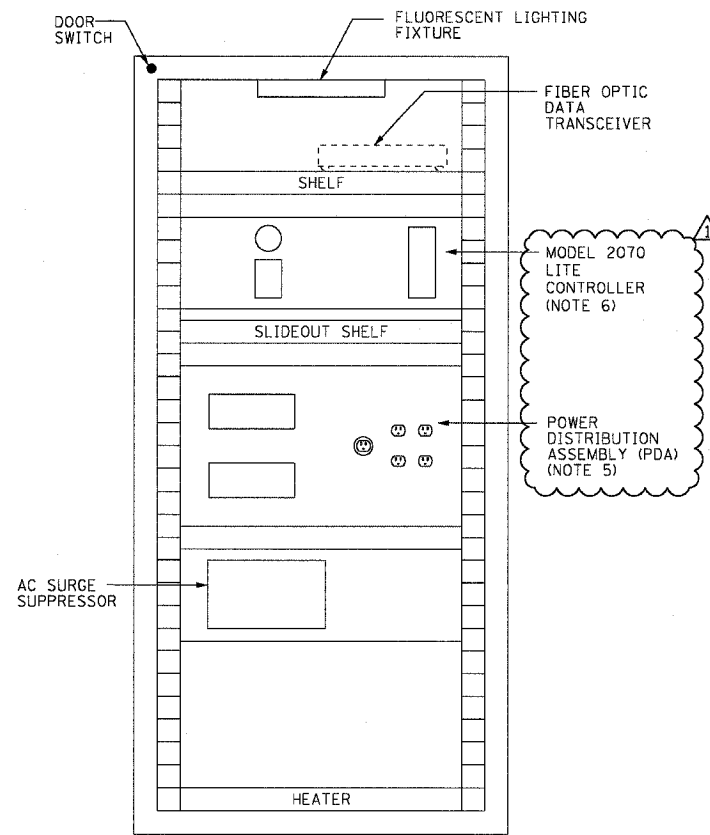
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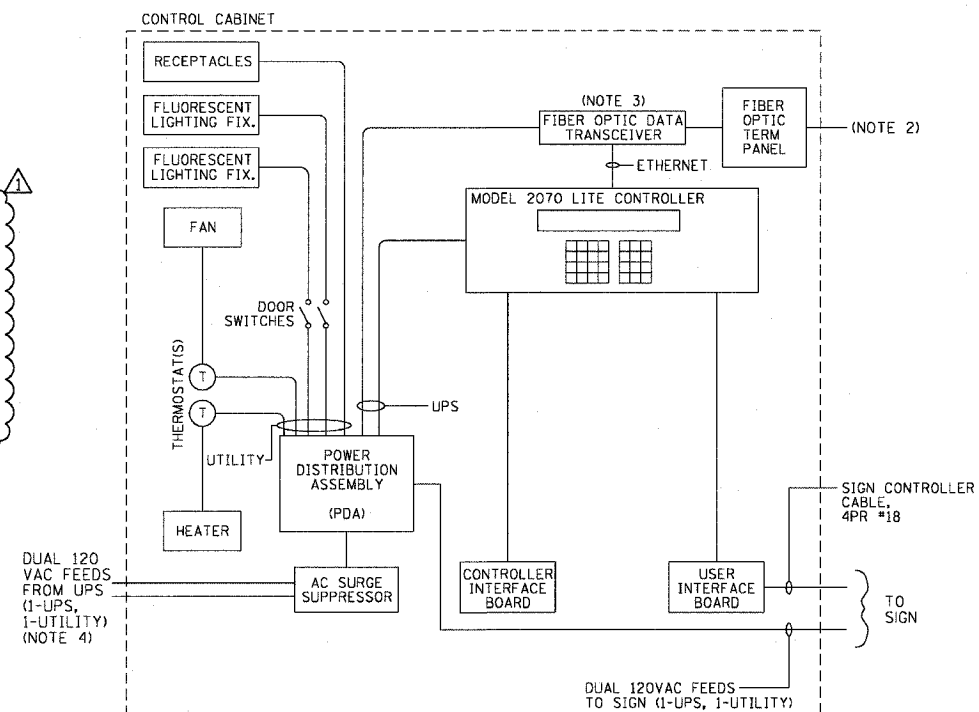
- SEE DRAWINGS ME-01 AND ME-02 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
- FIBER OPTIC CABLE AND TERMINATIONS AS SHOWN ON COMM PLANS AND DETAIL SHEETS.
- A DEDICATED LEASED LINE CONNECTION AND MODEM WILL BE TEMPORARILY USED FOR SIGNS DMS-30, DMS-02, DMS-03E, DMS-03IE, DMS-32E, DMS-04E, AND DMS-08. TEMPORARY CONNECTIONS WILL REQUIRE FIBER OPTIC DATA TRANSCEIVERS ONCE THE COMMUNICATION NETWORK IS IN PLACE.
- SEE DRAWING DT-06 FOR CONNECTION TO UPS CABINET.
- PDA'S LOCATED IN CABINETS SERVING TWO SIGNS SHALL BE CONFIGURED TO ACCOMMODATE THE SECOND SIGN OR A SECOND PDA WILL BE REQUIRED. IN EITHER CASE NO ADDITIONAL COMPENSATION SHALL BE MADE.
- SIGN CONTROLLERS LOCATED IN CABINETS SERVING TWO SIGNS SHALL BE CONFIGURED TO CONTROL BOTH SIGNS FROM A SINGLE CONTROLLER.



**CONTROL CABINET LAYOUT
FRONT VIEW (TYPICAL)**
(MODEL 334)



**CONTROL CABINET LAYOUT
BACK VIEW (TYPICAL)**
(MODEL 334)



**CONTROL CABINET SINGLE
LINE DIAGRAM (TYPICAL)**
(MODEL 334)

REVISIONS	
NAME	DATE
REVISION	1/21/05
REVISION	2/11/05