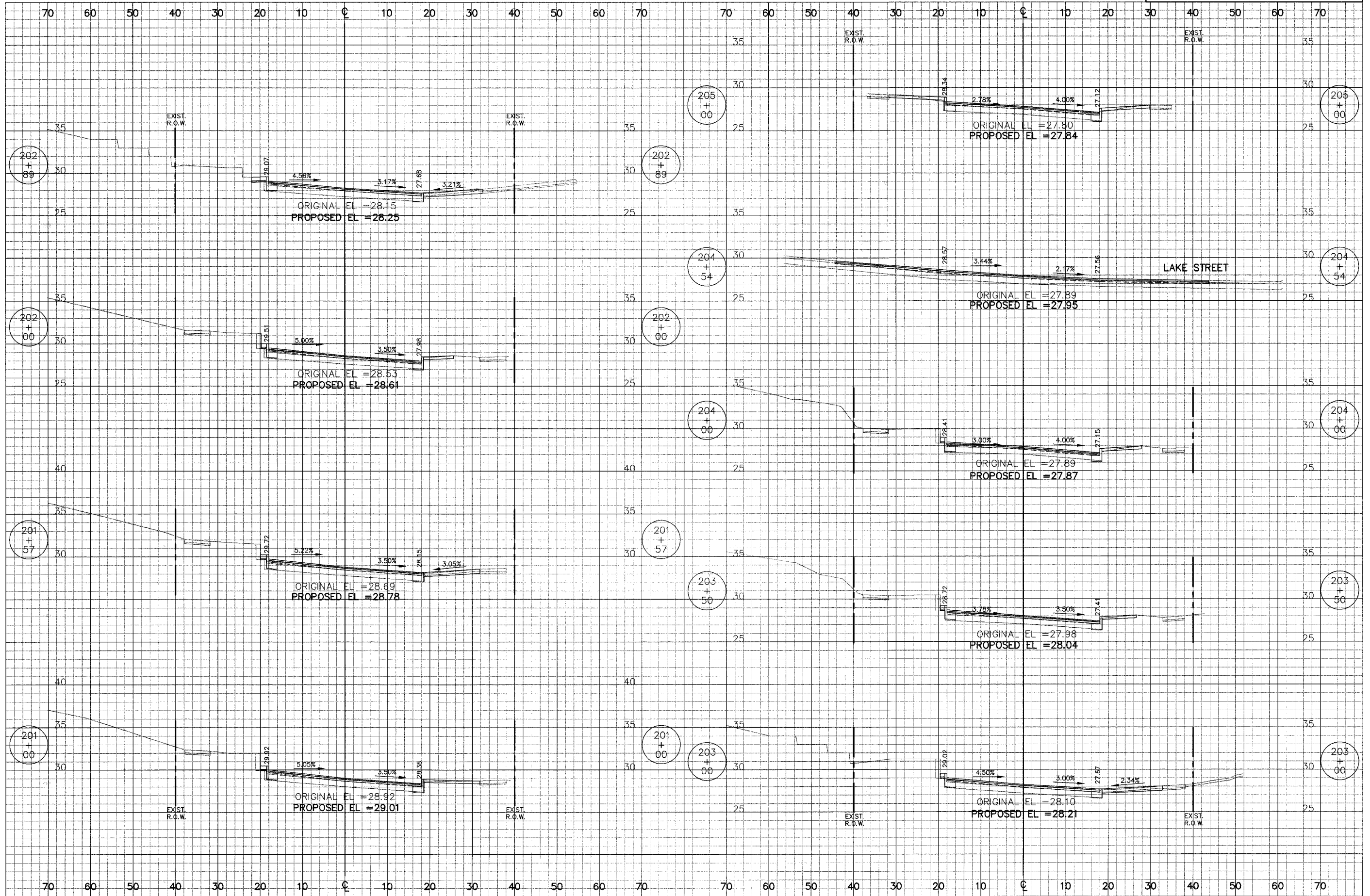
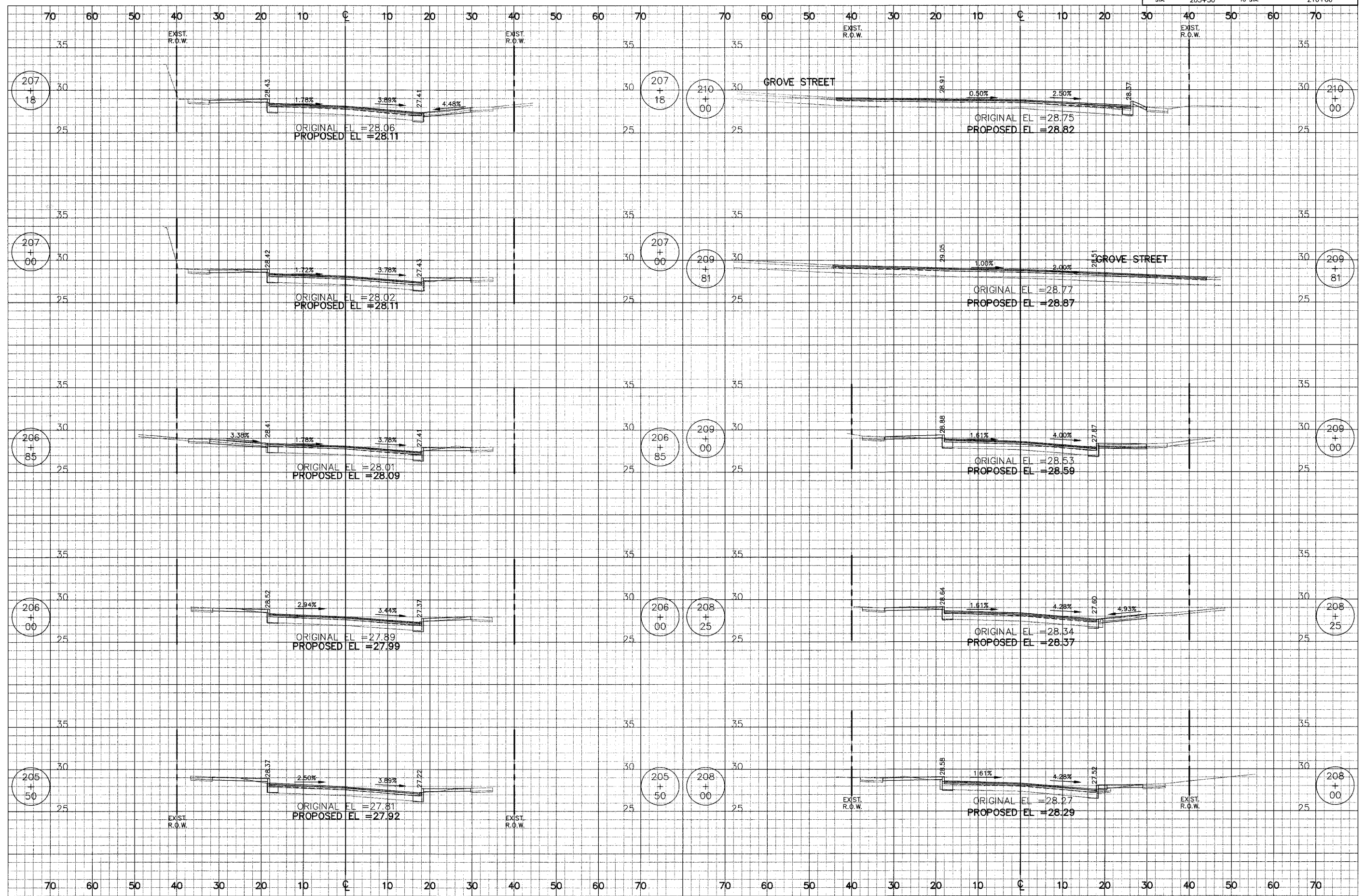


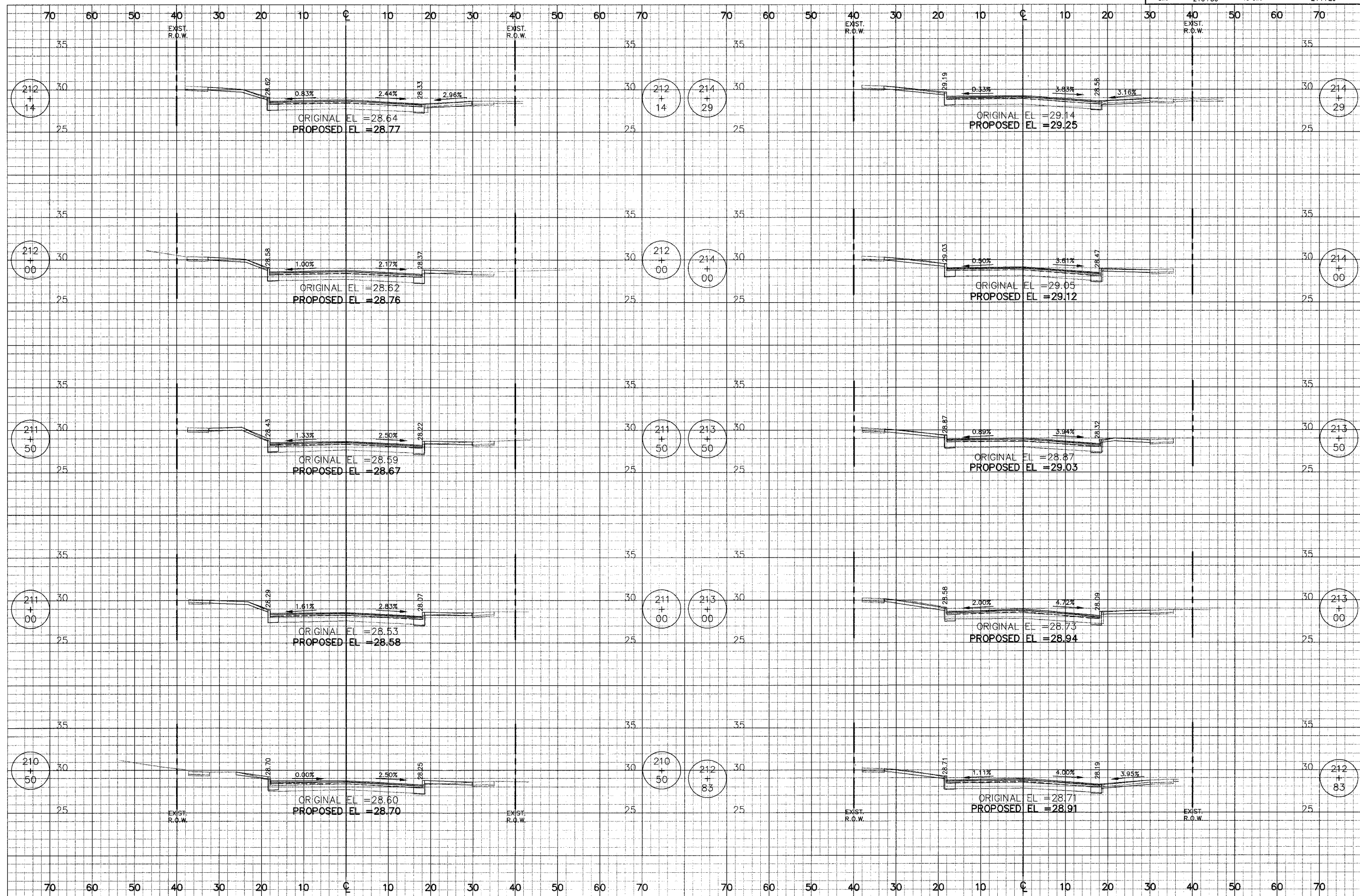
CITY OF EVANSTON	DATE	TOTAL SHEETS	SHEET NO
RIDGE AVENUE	8/31/2007	115	101
STA. 201+00	TO STA. 205+00		

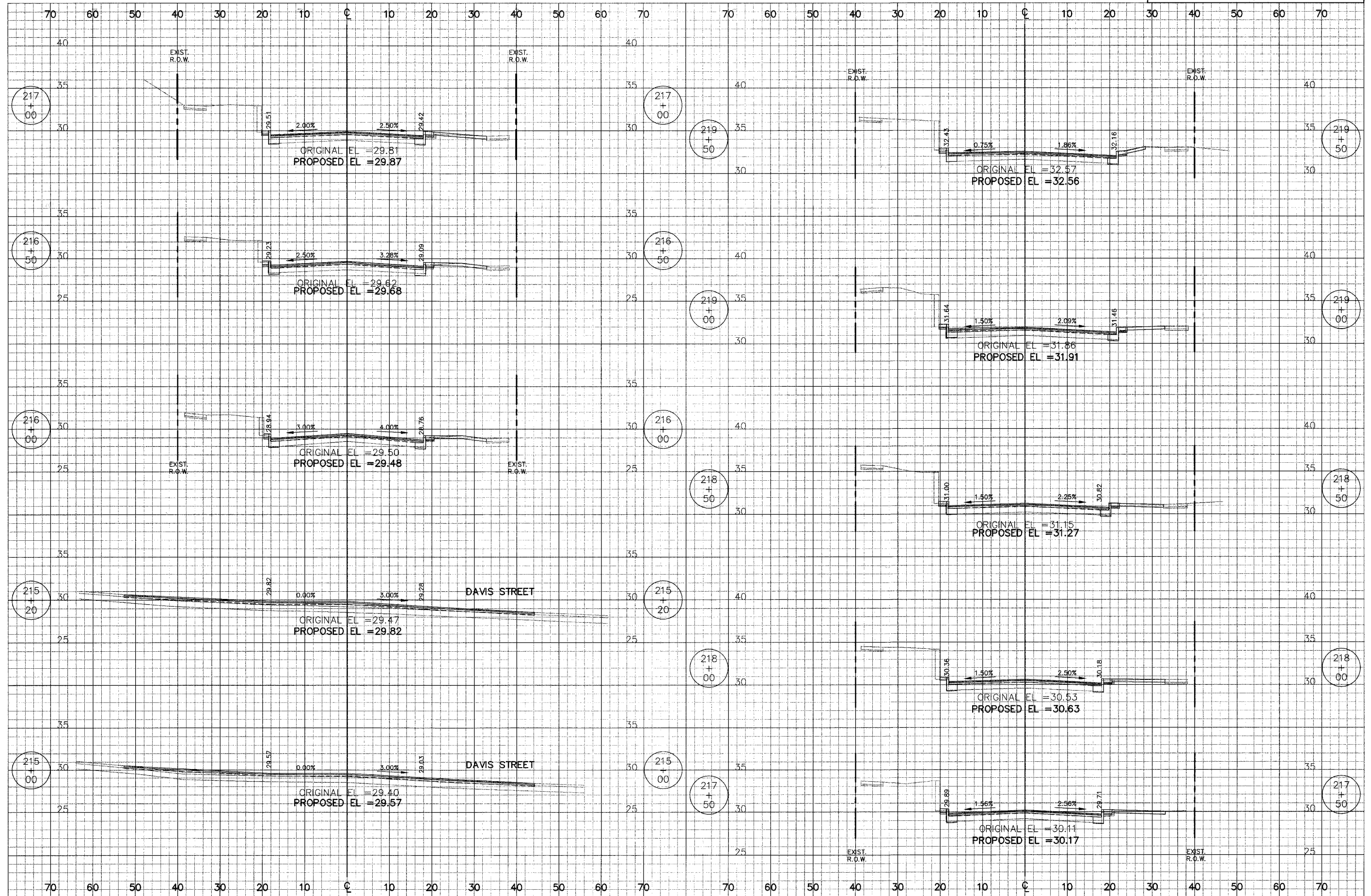


J:\1944\Phase II\cod\Sheets\Xsec\1944_xs03.dwg
Aug 26, 2007 11:23AM

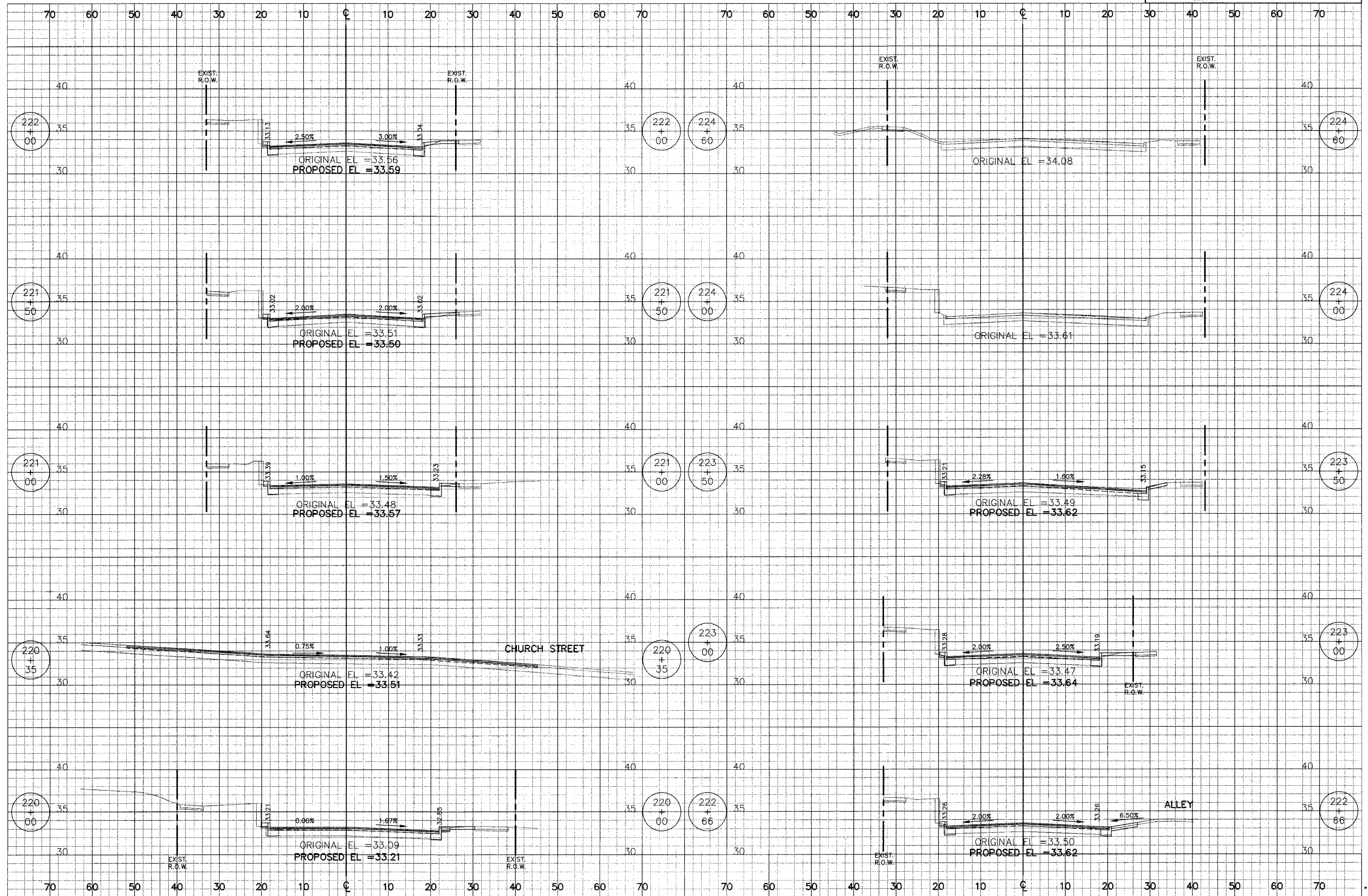


J:\1944\Phase II\cod\Sheets\Xaoc\1944_xs03.dwg
Aug 26, 2007 11:23AM



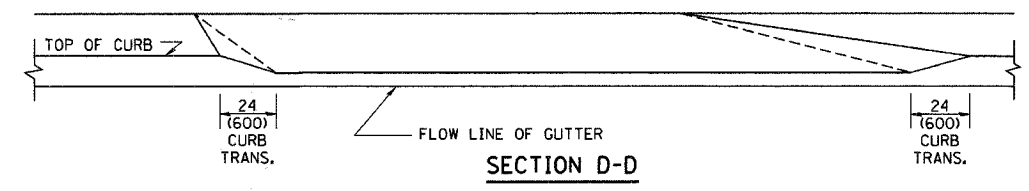
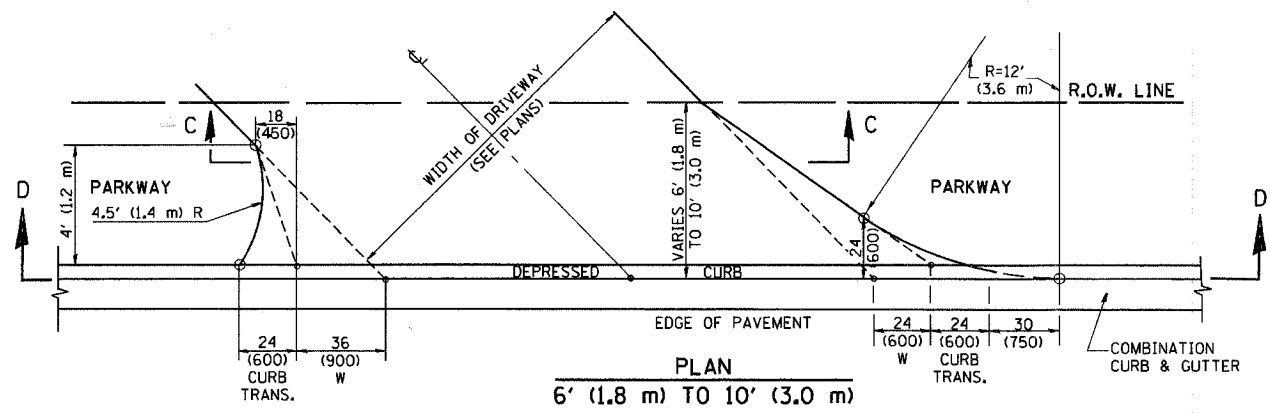
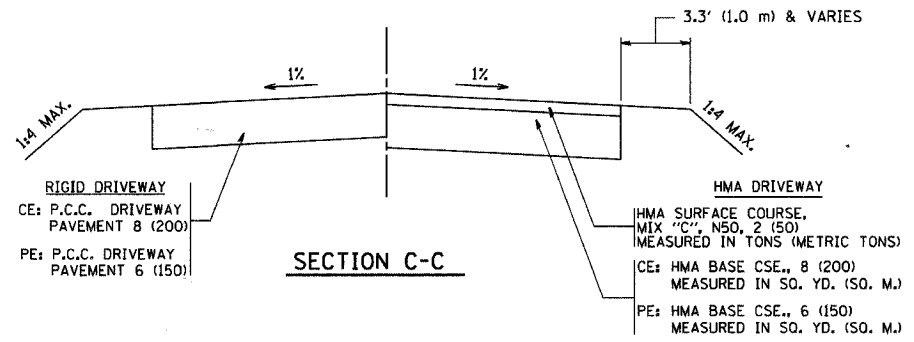
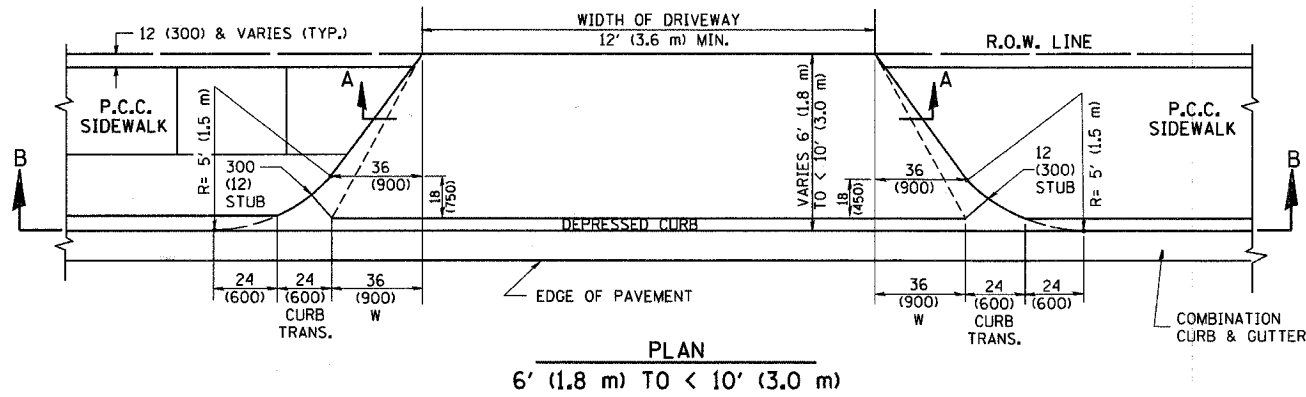
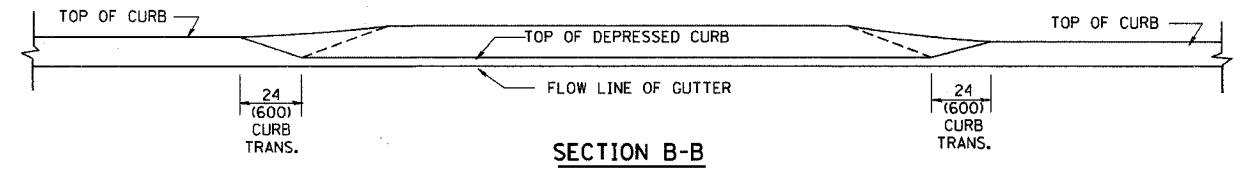
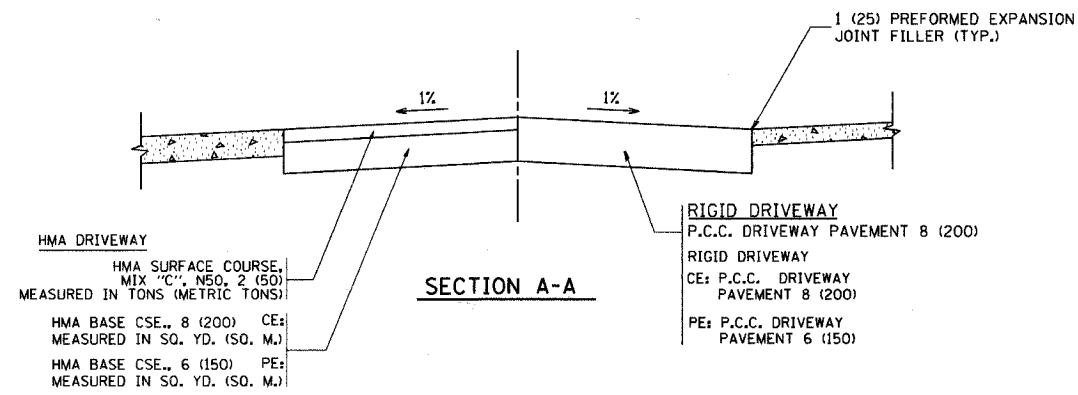
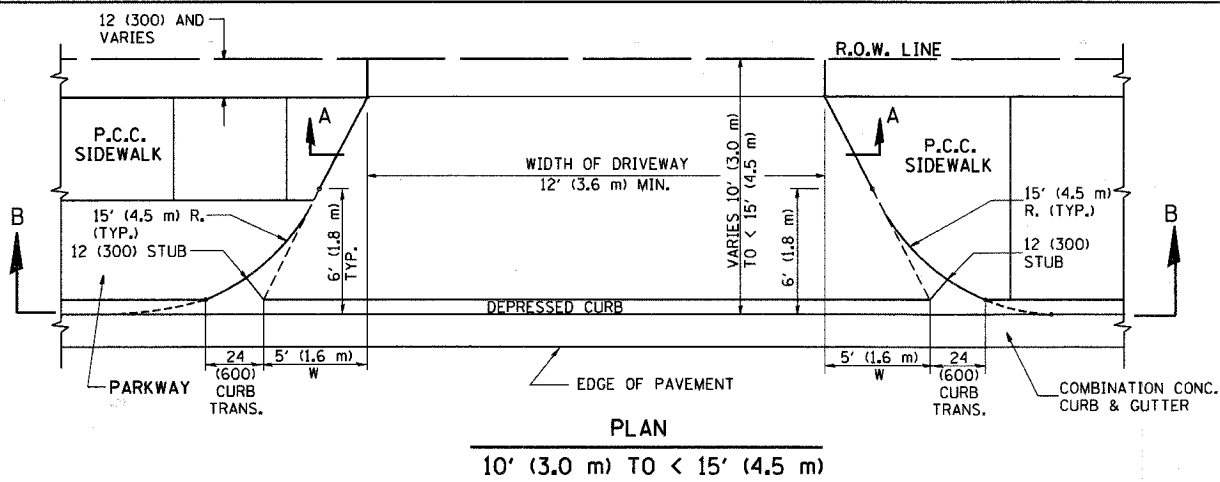


CITY OF EVANSTON	DATE	TOTAL SHEETS	SHEET NO.
RIDGE AVENUE	6/31/2007	115	105
STA. 220+00	TO STA. 224+60		



J:\1944\Phase II\cad\Sheets\Xeac\1944_xs03.dwg
Aug 26, 2007 11:25AM

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2744	08-00241-00-FV	COOK	115	106
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		



GENERAL NOTES

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATION 10 IN THE PERMIT HANDBOOK. WHERE SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED WITH RIGID PAVEMENT. WHERE NO SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED IN KIND. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 8' (2.4 m), THE P.C.C. SIDEWALK SHALL EXTEND TO THE BACK OF CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY, NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

THE 1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

"W" VARIES FROM 36 (900) TO 5' (1.5 m) PROPORTIONAL TO THE LENGTH (L), FROM 6' (1.8 m) TO 10' (3 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE NOTED.

ILLINOIS DEPARTMENT OF TRANSPORTATION

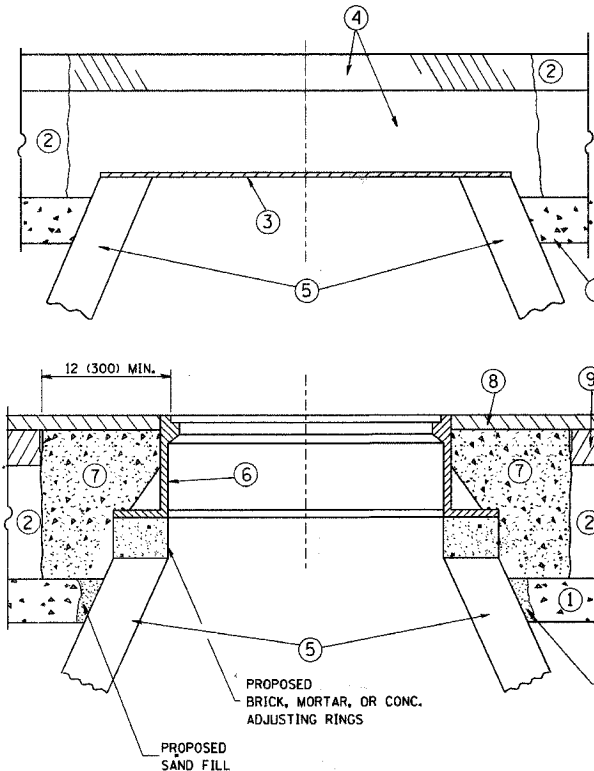
DRIVEWAY DETAILS
DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5 m)

REVISIONS	
NAME	DATE
R. SHAH	11/06/95
J. POLLASTRINI	08/12/96
J. POLLASTRINI	12/14/96
A. ABBAS	03/21/97
T. HOLTZ	04/08/97
M. GOMEZ	04/06/01
P. LaFLEUR	04/15/03
R. BORO	01/01/07

SCALE: VERT. HORIZ. DATE PLOTTED: 1/18/2007 DRAWN BY CHECKED BY

PLOT DATE = 1/18/2007
FILE NAME = c:\projects\driveway\bd02.dgn
USER NAME = drivetkgp

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2744	08-00241-00-PV	COOK	115	107
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	



CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS S1 CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

LEGEND

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS S1 CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

NOTES:

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISIONS	
NAME	DATE
R. SHAH	10/25/94
R. SHAH	01/30/95
R. SHAH	03/10/95
A. ABBAS	03/21/97
R. WIEDEMAN	05/14/04
R. BORO	01/01/07

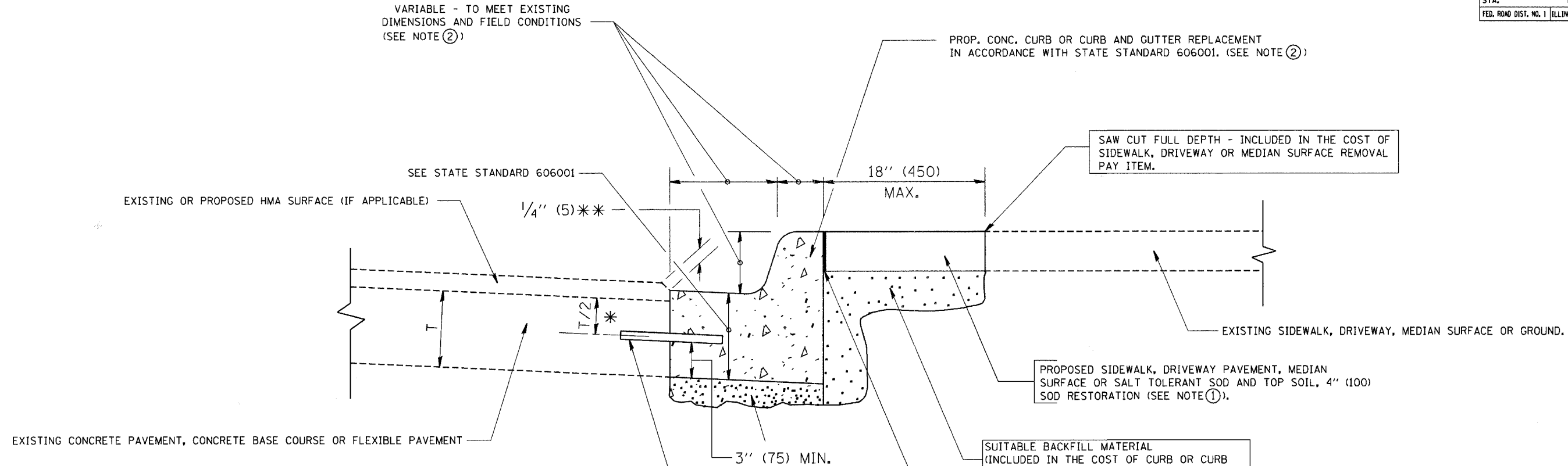
ILLINOIS DEPARTMENT OF TRANSPORTATION
DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

SCALE: VERT. NONE
HORIZ. 1"=20'
PLOT DATE: 1/18/2007

DRAWN BY
CHECKED BY

BD600-03 (BD-8)
REVISION DATE: 01/01/07

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2744	06-00241-00-FV	COOK	115	108
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	



- * 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.
- * * IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SALT TOLERANT SOD AND TOP SOIL, 4" (100) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

- ② CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.
- ③ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.
- ④ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑤ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.
- ⑥ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.
- ⑦ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

UNUSABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

BASIS OF PAYMENT:

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
A. HOUSEH	03/11/94
R. SHAH	02/24/95
R. SHAH	03/02/95
R. SHAH	08/18/96
R. SHAH	09/12/96
R. SHAH	09/19/96
R. SHAH	10/03/96
A. ABBAS	03/21/97
M. GOMEZ	01/22/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION
CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

SCALE: VERT. NONE
HORIZ. 1/8"=1'-0"
PLOT DATE: 1/18/2007

DRAWN BY

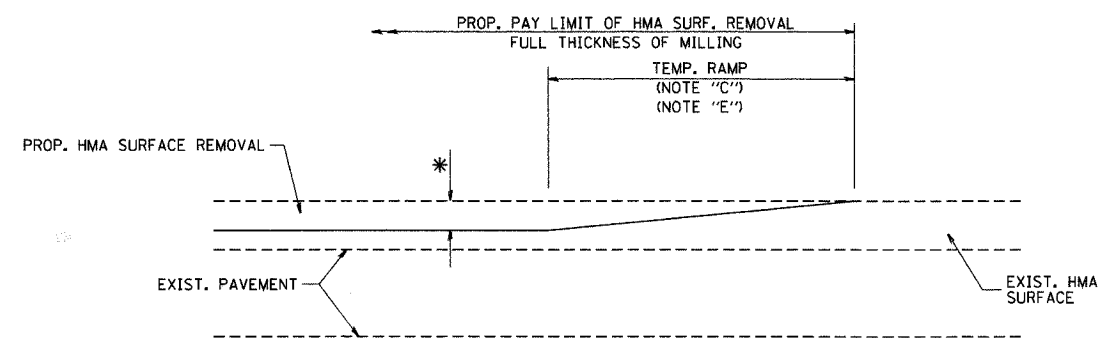
CHECKED BY

BD600-06 (BD-24)

REVISION DATE: 01/01/07

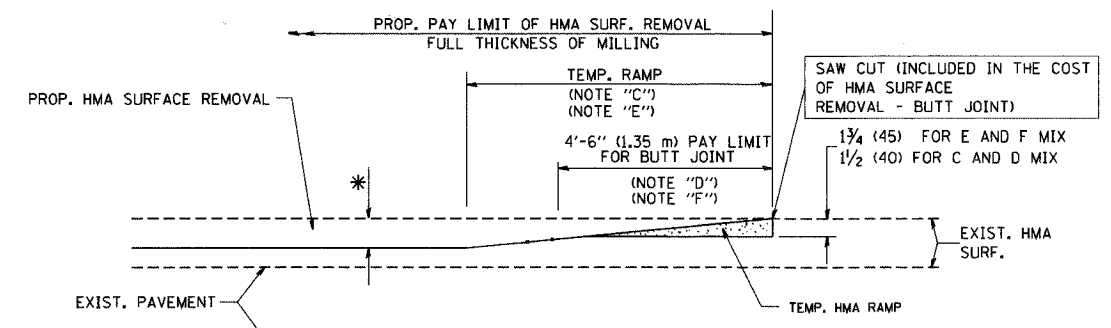
CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2744	06-00241-00-PV	COOK	115	109
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	



MILLED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

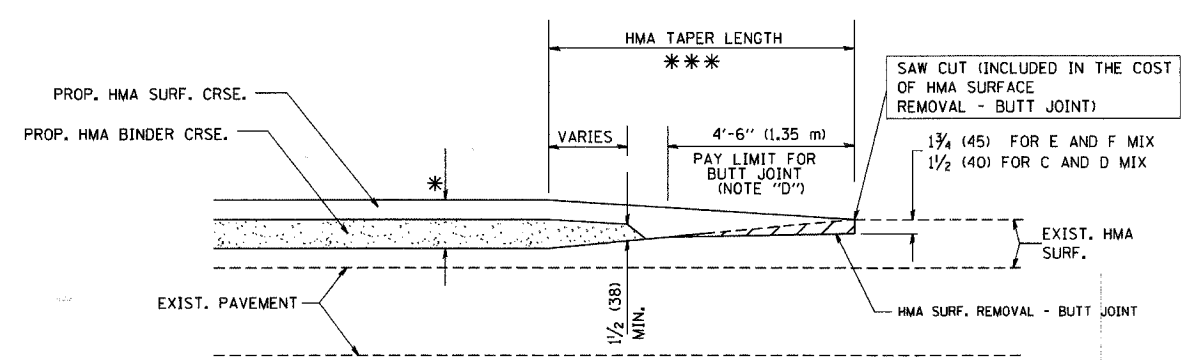
OPTION 1



HMA CONSTRUCTED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

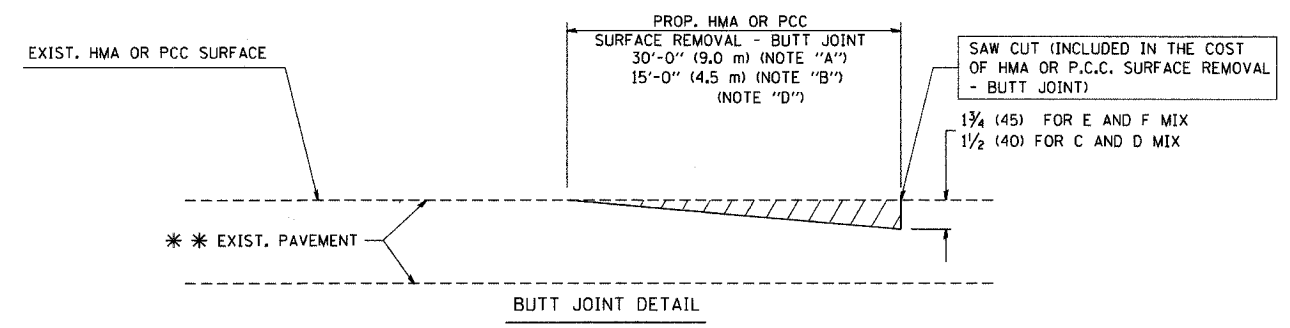
OPTION 2

TYPICAL TEMPORARY RAMP

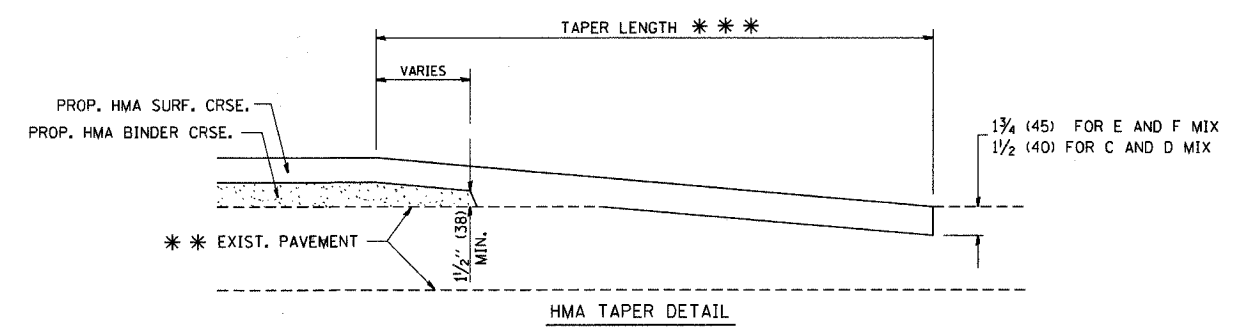


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER
FOR RESURFACING ONLY

*** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
- B: MINOR SIDE ROADS.
- C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
- D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
- E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
- F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
- G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- *** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/01
R. BORO	01/01/07

ILLINOIS DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

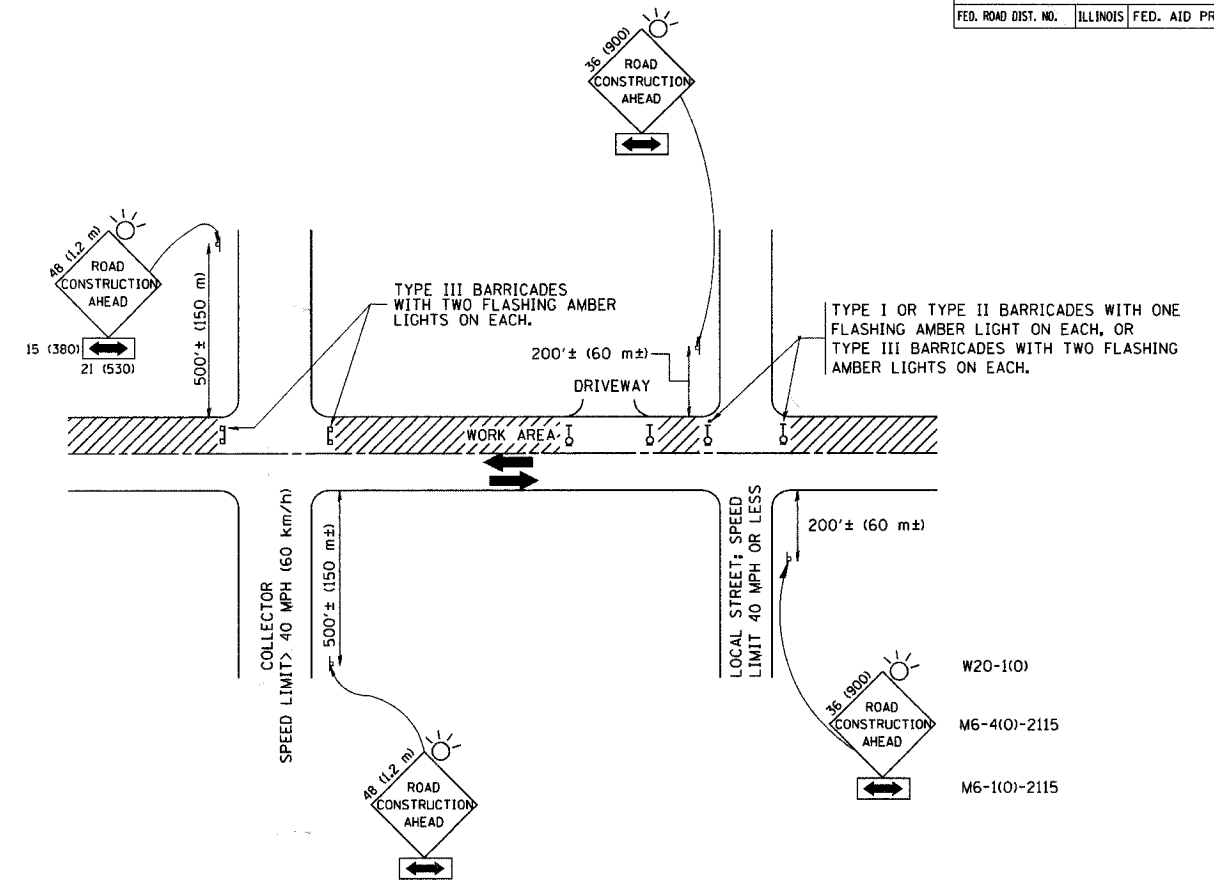
SCALE: VERT. NONE
HORIZ. 1"=20'
PLOT DATE: 1/18/2007

DRAWN BY
CHECKED BY

BD400-05 (VI-BD32)
REVISION DATE: 01/01/07

PLOT DATE = 1/18/2007
FILE NAME = c:\pwworkspace\autodesk\autocad2007\p1\11111111.dwg
USER NAME = d:\victor.g...

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2744	06-00241-00-PV	COOK	115	110
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
 - 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
 - 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 60 km/h (40 MPH) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in millimeters (inches) unless otherwise shown.

REVISIONS	
NAME	DATE
LHA	6/89
T. RAMMACHER	09/08/94
J. OBERLE	10/18/95
A. HOUSEH	03/06/96
A. HOUSEH	10/15/96
T. RAMMACHER	01/06/00

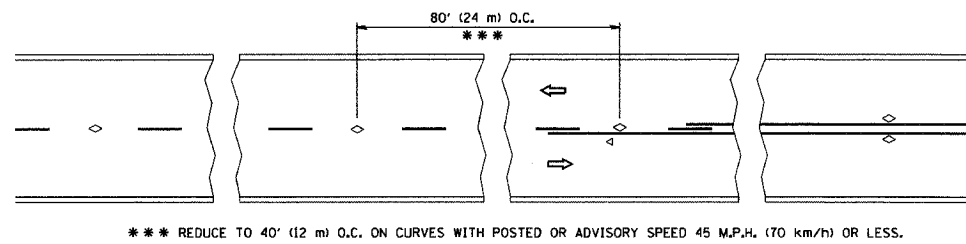
ILLINOIS DEPARTMENT OF TRANSPORTATION
 TRAFFIC CONTROL AND PROTECTION
 FOR
 SIDE ROADS, INTERSECTIONS, AND
 DRIVEWAYS

SCALE: _____ DRAWN BY _____
 DATE: 1/17/2007 CHECKED BY _____

TC-10
 REVISION DATE: 01/06/00

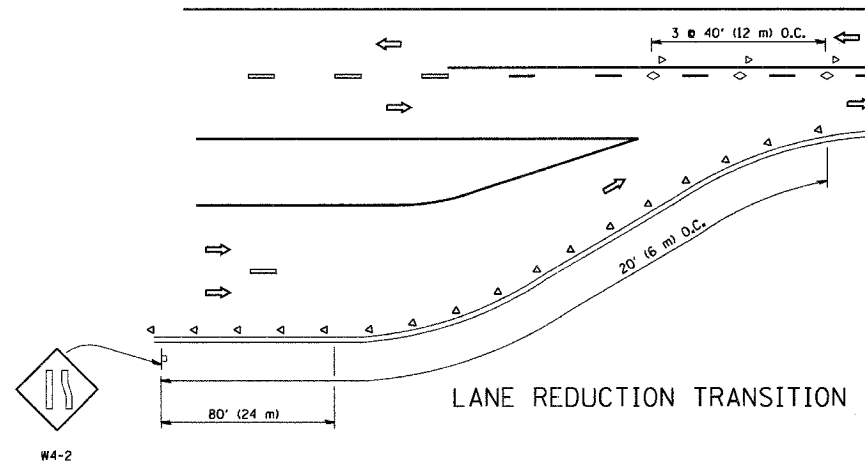
PLOT DATE = 1/17/2007
 FILE NAME = R:\projects\2007\01\06\TC-10.dgn
 USER NAME = jaygo

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2744	06-00241-00-PV	COOK	115	111
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

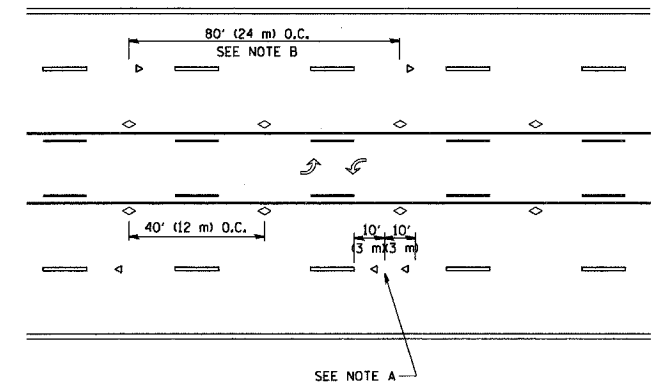


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

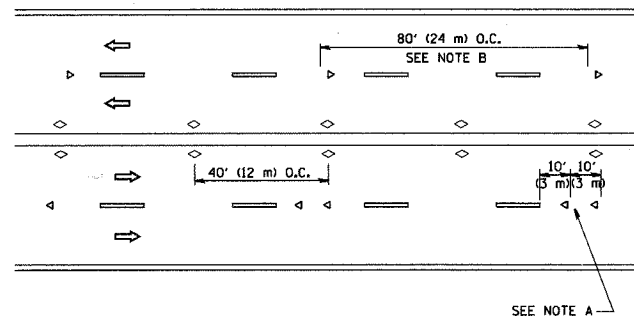
TWO-LANE/TWO-WAY



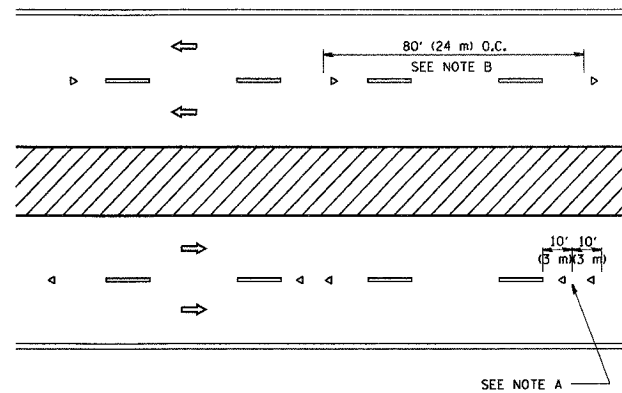
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

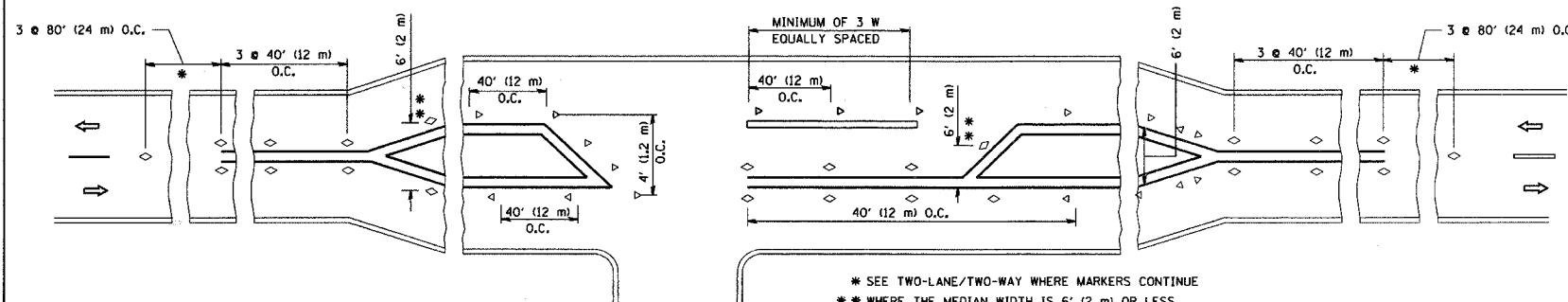
- YELLOW STRIPE
- WHITE STRIPE
- ◁ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◊ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



LEFT TURN

* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

All dimensions are in millimeters (inches) unless otherwise shown.

REVISIONS	
NAME	DATE
T. RAMMACHER	09-19-94
T. RAMMACHER	03-12-99
T. RAMMACHER	01-06-00

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TYPICAL APPLICATIONS
 RAISED REFLECTIVE PAVEMENT
 MARKERS (SNOW-PLOW RESISTANT)

SCALE: NONE
 DATE: 1/17/2007

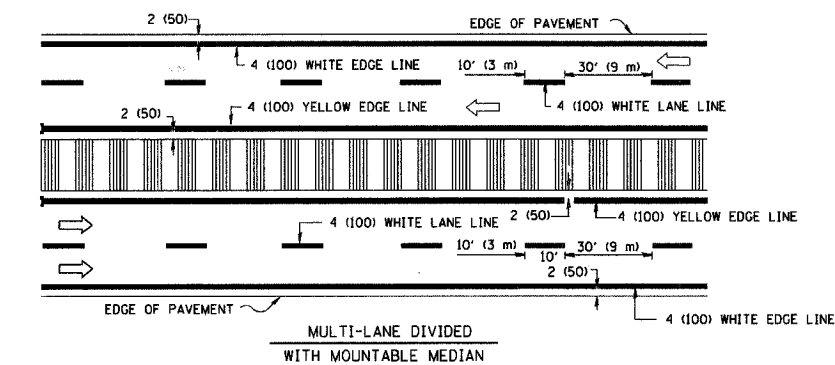
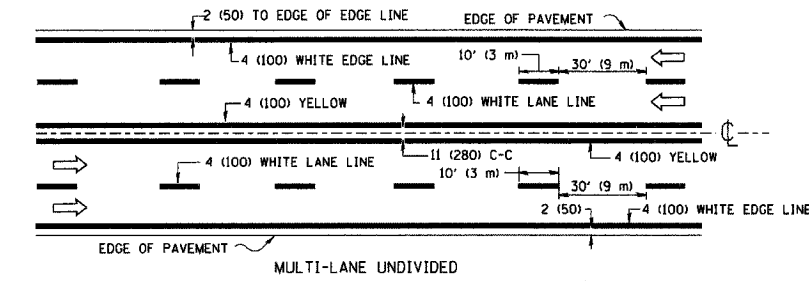
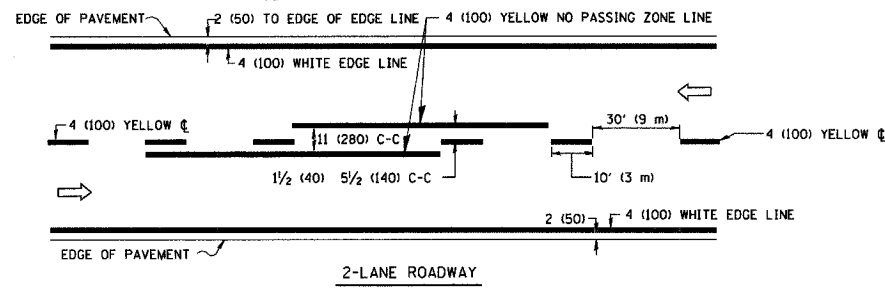
DRAWN BY CADD

CHECKED BY

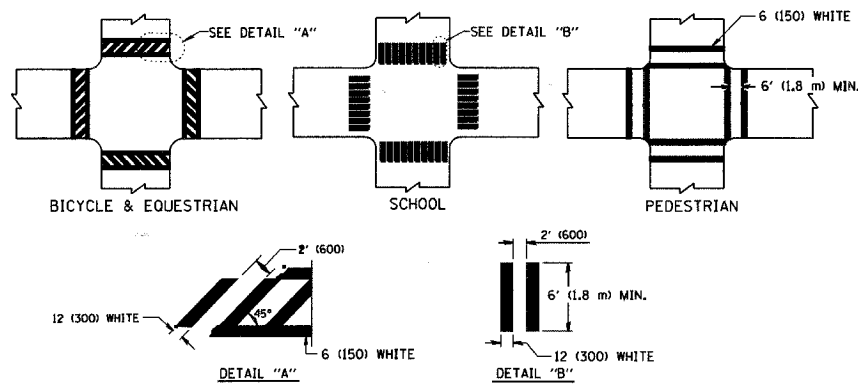
TC-11

REVISION DATE: 01/06/00

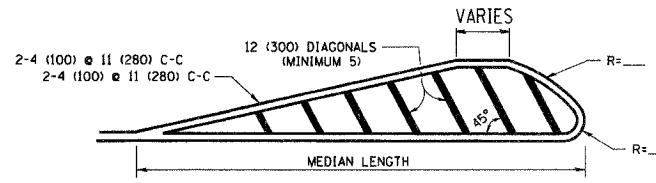
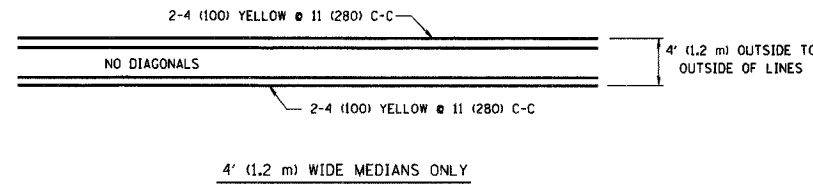
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2744	08-00241-00-PV	COOK	115	112
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		



NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE
TYPICAL LANE AND EDGE LINE MARKING

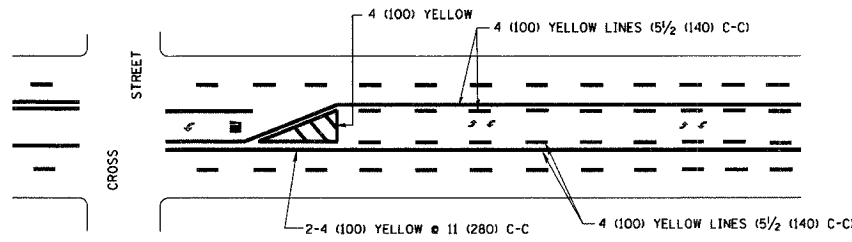


TYPICAL CROSSWALK MARKING

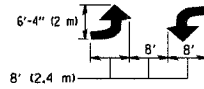


FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.
 DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
 75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

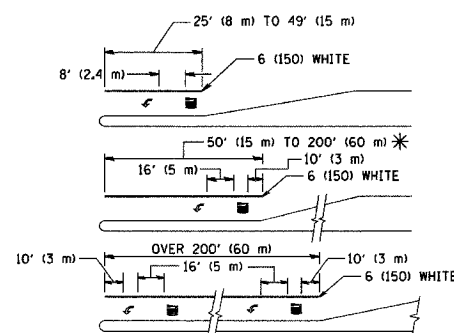


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



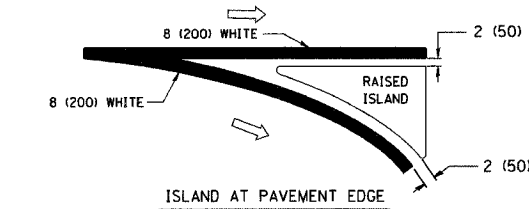
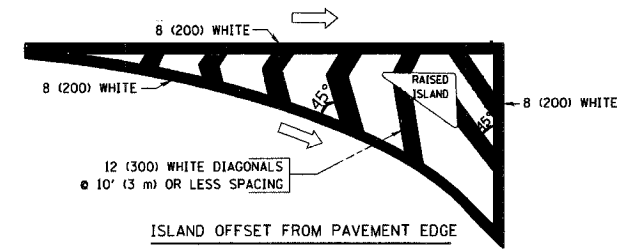
MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)
 * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE
TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT; OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"-3.6 SQ. FT. (0.33 m ²) EACH "X"-54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

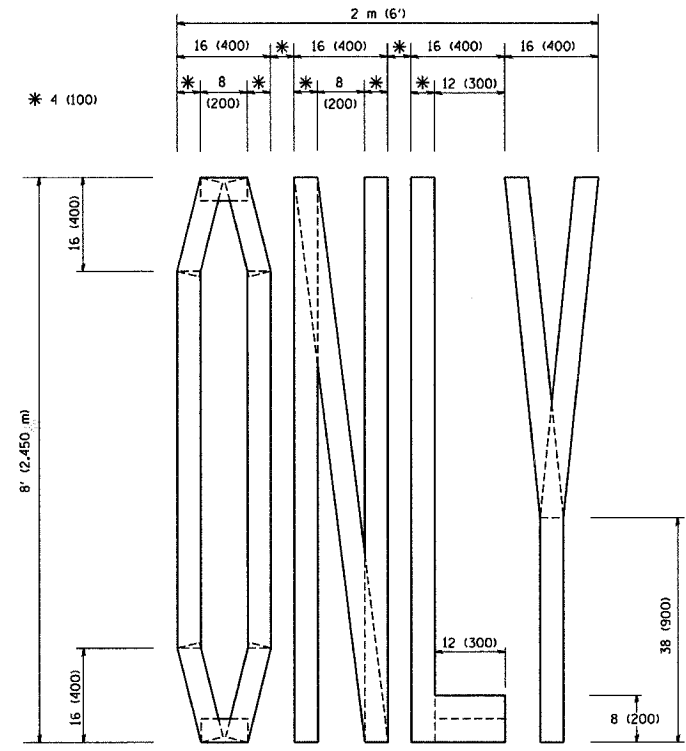
All dimensions are in millimeters (inches) unless otherwise shown.

REVISIONS	
NAME	DATE
EVERS	03-19-90
T. RAMMACHER	10-27-94
ALEX HOUSEH	10-09-96
ALEX HOUSEH	10-17-96
T. RAMMACHER	01-06-00

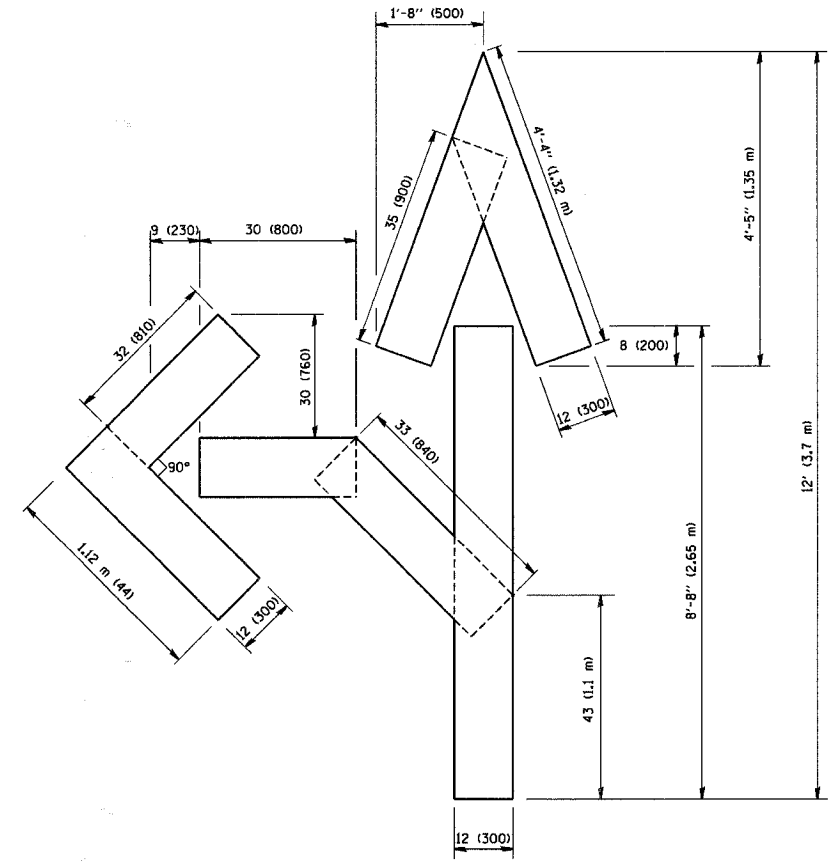
ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
TYPICAL PAVEMENT
MARKINGS

SCALE: NONE
 DATE: 1/17/2007
 DRAWN BY CADD
 CHECKED BY

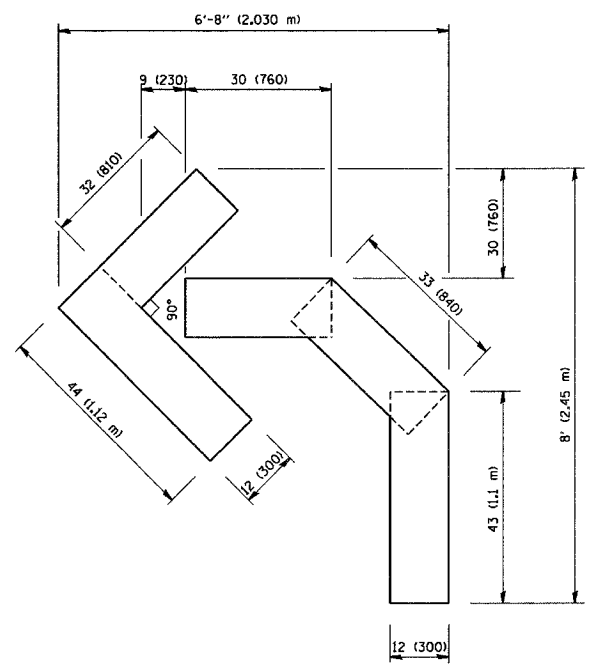
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2744	06-00241-00-PV	COOK	115	113
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	



QUANTITY
 4 (100) LINE = 64.1 ft. (19.7 m)
 21.1 sq. ft. (1.97 sq. m)



QUANTITY
 4 (100) LINE = 82.5 ft. (25.3 m)
 27.5 sq. ft. (2.53 sq. m)



QUANTITY
 4 (100) LINE = 45.5 ft. (13.9 m)
 15.2 sq. ft. (1.39 sq. m)

All dimensions are in millimeters (inches) unless otherwise shown.

REVISIONS		
NAME	DATE	
T. RAMMACHER	09/18/94	
J. OBERLE	06/01/96	
T. RAMMACHER	06/05/96	
T. RAMMACHER	11/04/97	
T. RAMMACHER	03/02/98	
E. GOMEZ	08/28/00	

ILLINOIS DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKING
 LETTERS AND SYMBOLS
 FOR TRAFFIC STAGING**

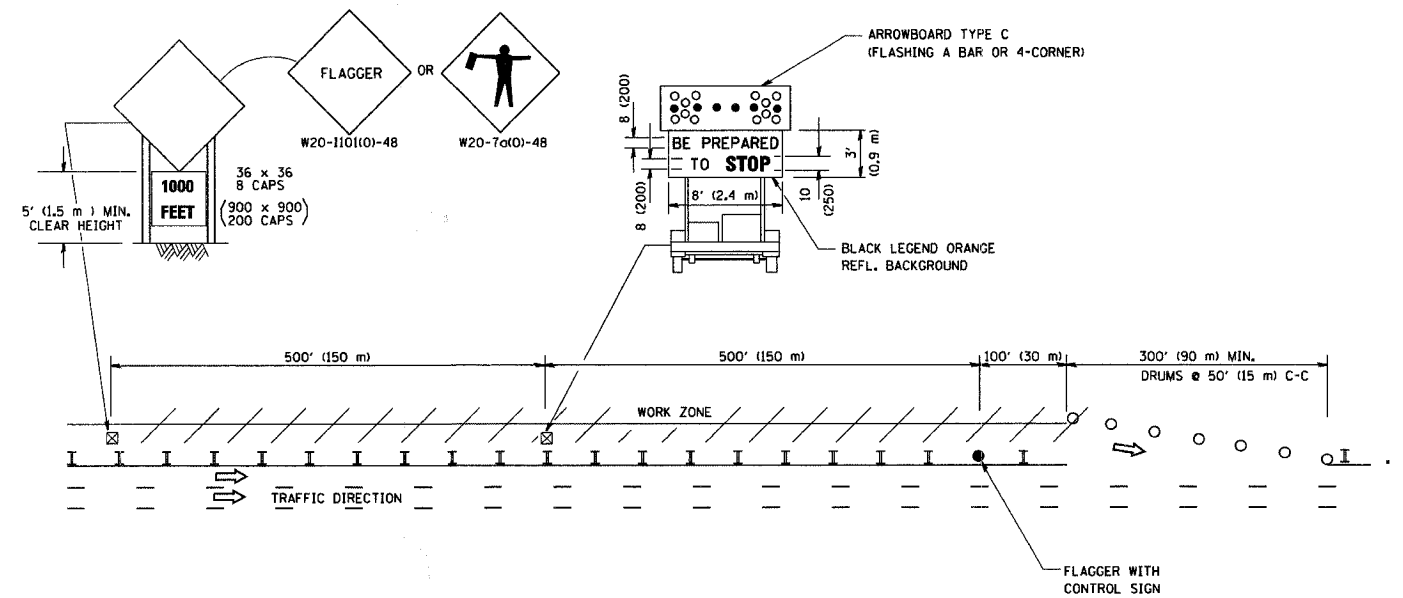
SCALE: NONE
 DATE: 1/17/2007
 DRAWN BY: CADD
 CHECKED BY:
 TC-16
 REVISION DATE: 08/28/00

PLOT DATE = 1/17/2007
 FILE NAME = K:\data\11\113.dgn
 PLOT SCALE = 50:0000 - 1/16"
 USER NAME = jeng

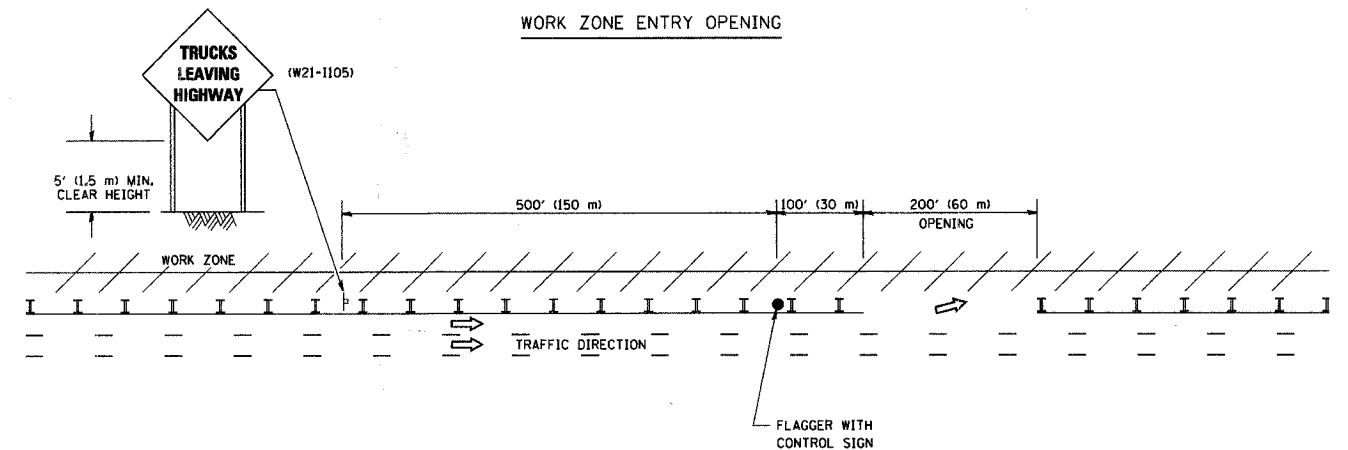
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2744	08-00241-00-PV	COOK	115	114
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. The Arrowboard, the Flagger Ahead trailer mounted sign, and the Trucks Leaving Highway sign shall be removed or turned away from traffic and the exit and entry openings shall be closed when the flagging operation ceases.
2. Work Zone Exit Openings should be a minimum of one half mile apart.
3. Exiting the work zone at any place other than at a Work Zone Exit Opening will be prohibited.
4. All vehicles shall enter the work zone at entry openings, using their turn signals to warn motorists

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

REVISIONS	
NAME	DATE
DWS	8/98
JAF	4/03
JAF	2/06
SPB	1/07

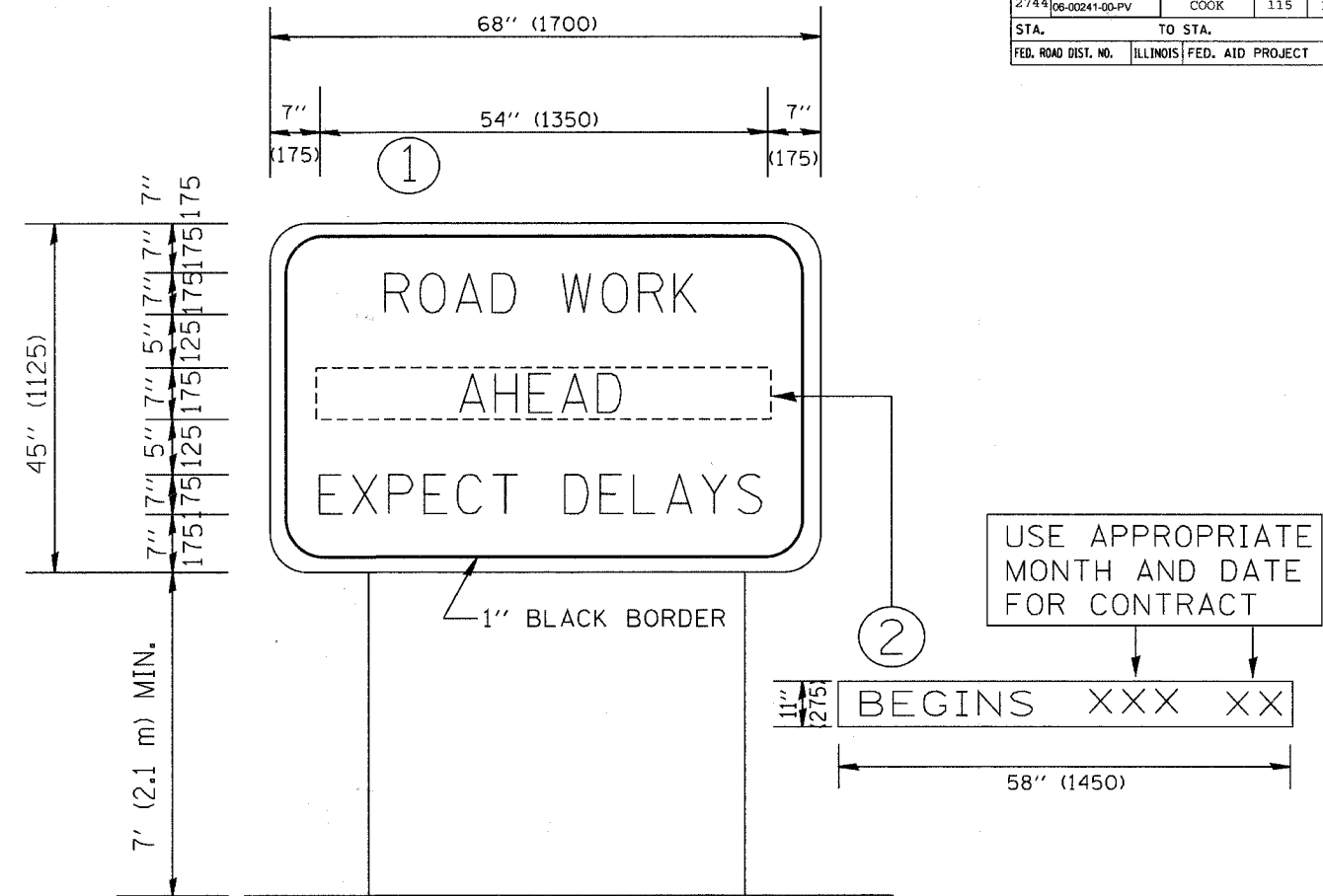
ILLINOIS DEPARTMENT OF TRANSPORTATION
SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

SCALE: NONE
DATE: 1/16/2007

DRAWN BY CADD
CHECKED BY TC-18

REVISION DATE: 01/01/07

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2744	06-00241-00-PV	COOK	115	115
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTES:

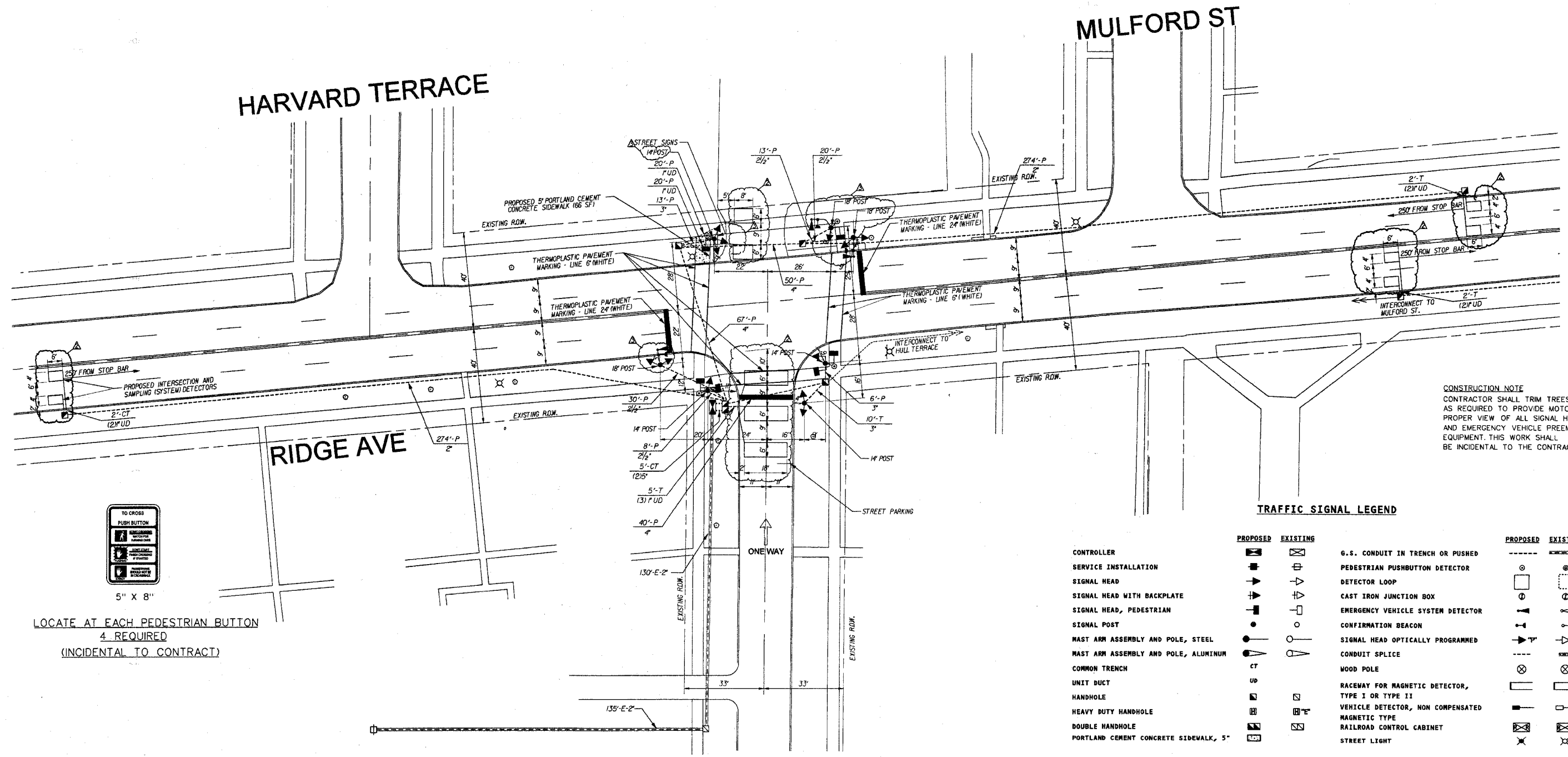
1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.

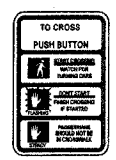
REVISIONS	
NAME	DATE
R. MIRS	9-15-97
R. MIRS	12-11-97
T. RAMMACHER	2-2-99

ILLINOIS DEPARTMENT OF TRANSPORTATION
 TEMPORARY INFORMATION SIGNING
 SCALE: _____
 DATE: 1/17/2007
 DRAWN BY DESIGN
 CHECKED BY
 TC22
 REVISION DATE: 02/02/99

Section
99-00215-00-T2
Sheet 12



CONSTRUCTION NOTE
CONTRACTOR SHALL TRIM TREES AS REQUIRED TO PROVIDE MOTORIST PROPER VIEW OF ALL SIGNAL HEADS AND EMERGENCY VEHICLE PREEMPTION EQUIPMENT. THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.



5" X 8"

LOCATE AT EACH PEDESTRIAN BUTTON
4 REQUIRED
(INCIDENTAL TO CONTRACT)

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]	G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]	PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]	DETECTOR LOOP	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]	CAST IRON JUNCTION BOX	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]	EMERGENCY VEHICLE SYSTEM DETECTOR	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]	CONFIRMATION BEACON	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]	SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]	CONDUIT SPLICE	[Symbol]	[Symbol]
COMMON TRENCH	[Symbol]	[Symbol]	WOOD POLE	[Symbol]	[Symbol]
UNIT DUCT	[Symbol]	[Symbol]	RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]	VEHICLE DETECTOR, NON COMPENSATED	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]	MAGNETIC TYPE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]	RAILROAD CONTROL CABINET	[Symbol]	[Symbol]
PORTLAND CEMENT CONCRETE SIDEWALK, 5'	[Symbol]	[Symbol]	STREET LIGHT	[Symbol]	[Symbol]

GENERAL NOTE: SIGNAL HEADS SHALL CONTAIN L.E.D. MODULES FOR THE RED, YELLOW, GREEN BALL AND ARROW INDICATIONS. PEDESTRIAN HEADS SHALL CONTAIN 16" L.E.D. SIDE-BY-SIDE INTERNATIONAL SYMBOL INDICATIONS.

MULFORD ST

REVISIONS		
NO.	DATE	DESCRIPTION
1	06-08-06	MISCELLANEOUS REVISION
2	11-15-06	DETECTOR LOOPS AND SYSTEM DETECTOR LOOPS TO BE INSTALLED BY OTHERS AT A LATER DATE
3	11-15-06	EVP REVISIONS

TRAFFIC SIGNAL INSTALLATION PLAN

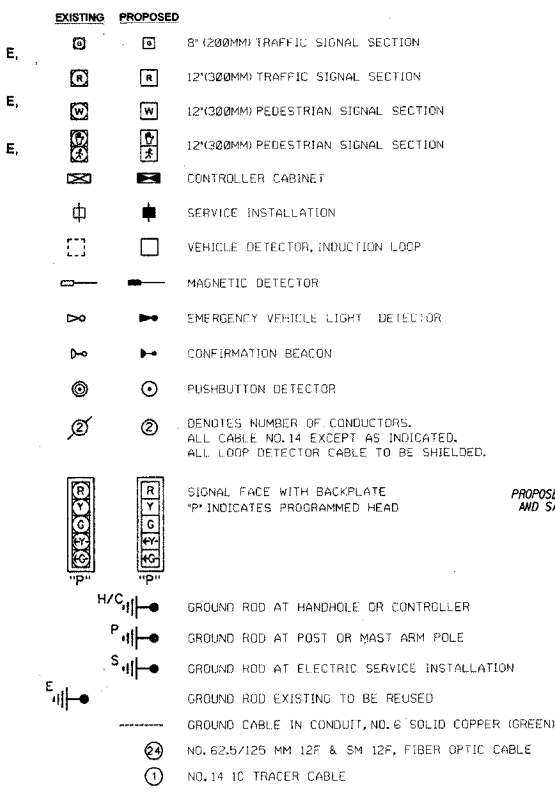
RIDGE AVE. @ MULFORD ST.
EVANSTON, ILLINOIS

CITY OF EVANSTON
12...sp.dgn
T12
IN BY: DWS
CHECKED BY: PAW
SCALE: 1"=20'
DATE: APRIL 28, 2006

SCHEDULE OF QUANTITIES

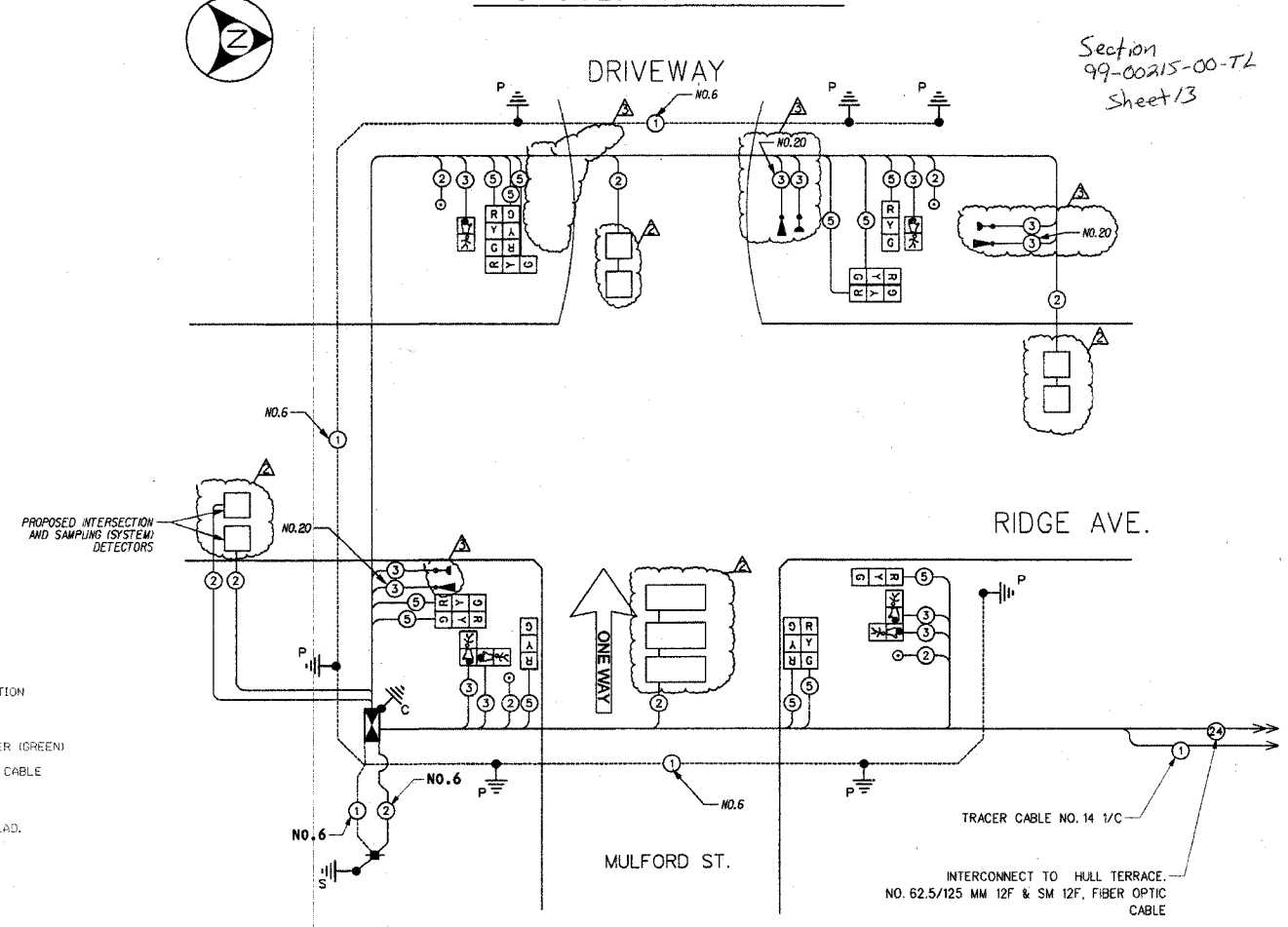
QTY	UNIT	ITEM DESCRIPTION
86	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 5"
220	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 6"
58	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 24"
80	SQ FT	THERMOPLASTIC PAVEMENT MARKING REMOVAL
1	EACH	SERVICE INSTALLATION, POLE MOUNTED
10	FOOT	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL
548	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
63	FOOT	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL
19	FOOT	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL
157	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
5	EACH	HANDHOLE
1	EACH	DOUBLE HANDHOLE
20	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCEIVER - FIBER OPTIC
580	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
417	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1044	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1425	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
1087	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
484	FOOT	ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED
290	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.
28	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE D
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED
5	EACH	INDUCTIVE LOOP DETECTOR
946	FOOT	DETECTOR LOOP, TYPE 1
2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
4	EACH	REMOVE EXISTING HANDHOLE
5	EACH	REMOVE EXISTING CONCRETE FOUNDATION
3	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED
1	EACH	REMOVE EXISTING SERVICE INSTALLATION

CABLE PLAN LEGEND



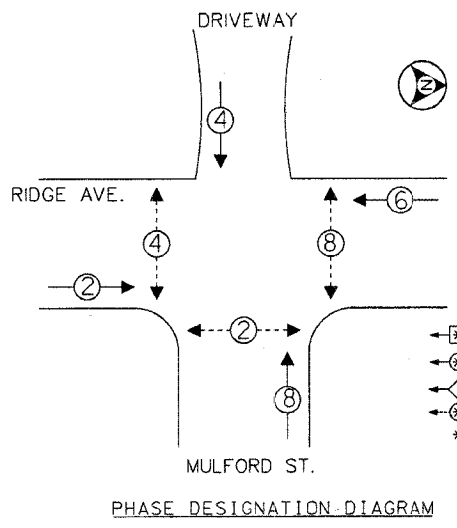
NOTE: ALL NEW GROUND RODS SHALL BE 3/4" X 10'-0" LONG COPPER CLAD. THE COST SHALL BE INCIDENTAL TO THE COST OF INSTALLATION.

PROPOSED CABLE PLAN



Section 99-00215-00-T2
Sheet 13

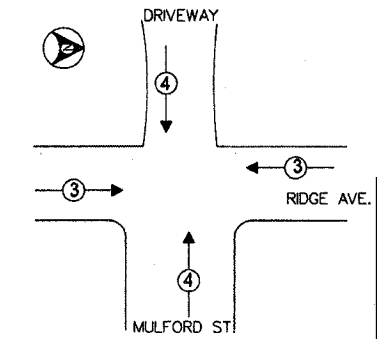
PROPOSED CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

NOTE:
 • PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 • PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←→	↑↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED	XX OPERATIONS	
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	135	12	0.10		
PED. SIGNAL	6	90	25	1.00	150
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	472

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'+L-2 =
E - M ARM POLE		SIGNAL POST	2	BRACKET MOUNTED	13
24"	10	CONTROLLER CAB.	1	PED. PUSHBUTTON	4
30"	15	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
		ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
		GROUND CABLE	1	POST MOUNTED	6

REVISIONS		
NO.	DATE	DESCRIPTION
△	06-08-06	MISCELLANEOUS REVISION
△	11-15-06	DETECTOR LOOPS AND SYSTEM DETECTOR LOOPS TO BE INSTALLED BY OTHERS AT A LATER DATE
△	11-15-06	EVP REVISIONS

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES

RIDGE AVE. @ MULFORD ST.
EVANSTON, ILLINOIS

CITY OF EVANSTON
13_cp.dgn

T13

SCALE: NOT TO SCALE
DATE: APRIL 28, 2006

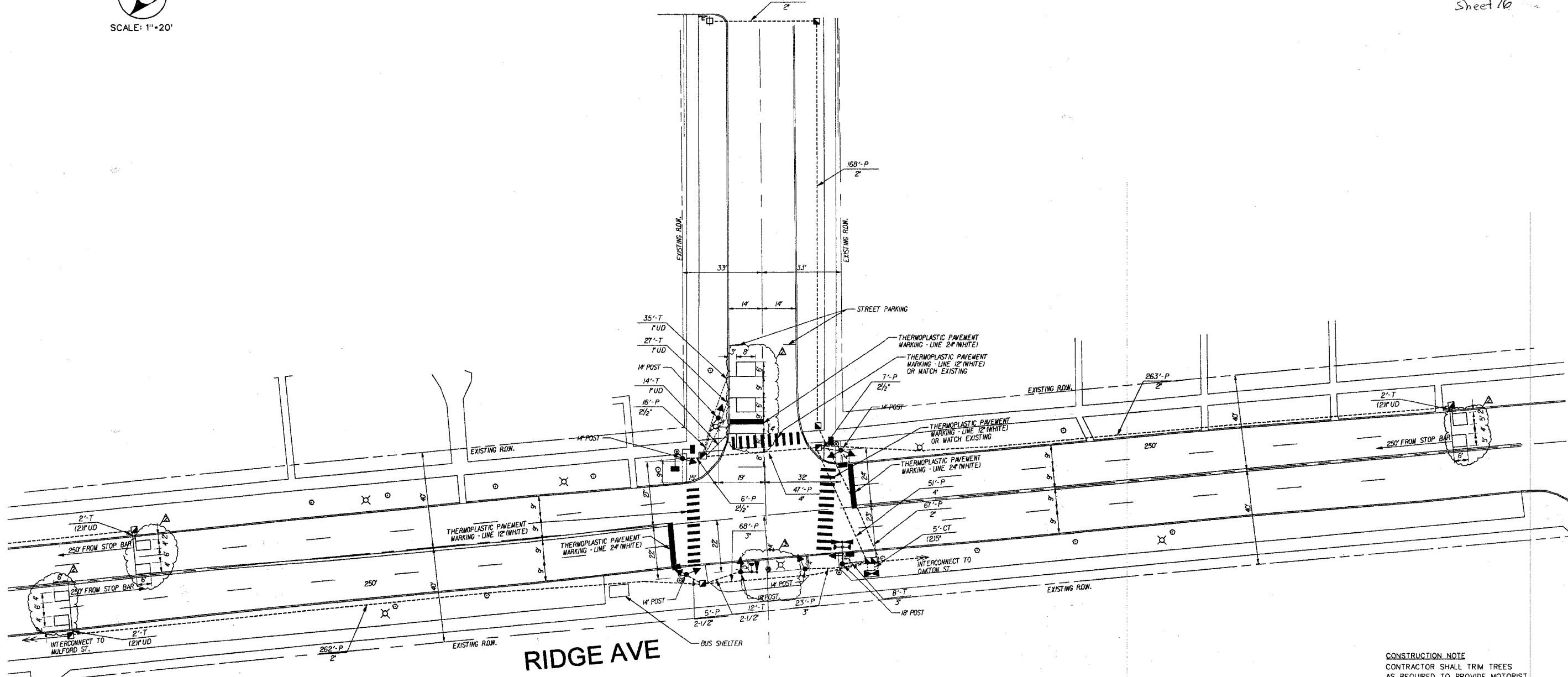
RAWN BY: DWS
CHECKED BY: PAW

EVANSTON, ILLINOIS
 ENERGY SUPPLY - CONTACT: MIKE LYNCH
 PHONE: (847) 291-3329
 COMPANY: COMED

Section
99-00215-00-TL
Sheet 16



HULL TERRACE



RIDGE AVE

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER			G.S. CONDUIT IN TRENCH OR PUSHED		
SERVICE INSTALLATION			PEDESTRIAN PUSHBUTTON DETECTOR		
SIGNAL HEAD			DETECTOR LOOP		
SIGNAL HEAD WITH BACKPLATE			CAST IRON JUNCTION BOX		
SIGNAL HEAD, PEDESTRIAN			EMERGENCY VEHICLE SYSTEM DETECTOR		
SIGNAL POST			CONFIRMATION BEACON		
MAST ARM ASSEMBLY AND POLE, STEEL			SIGNAL HEAD OPTICALLY PROGRAMMED		
MAST ARM ASSEMBLY AND POLE, ALUMINUM			CONDUIT SPLICE		
COMMON TRENCH	CT		WOOD POLE		
UNIT DUCT	UD		RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
HANDHOLE			VEHICLE DETECTOR, NON COMPENSATED		
HEAVY DUTY HANDHOLE			MAGNETIC TYPE		
DOUBLE HANDHOLE			RAILROAD CONTROL CABINET		
			STREET LIGHT		



LOCATE AT EACH PEDESTRIAN BUTTON
4 REQUIRED
(INCIDENTAL TO CONTRACT)

GENERAL NOTE: SIGNAL HEADS SHALL CONTAIN L.E.D. MODULES FOR THE RED, YELLOW, GREEN BALL AND ARROW INDICATIONS. PEDESTRIAN HEADS SHALL CONTAIN 16" L.E.D. SIDE-BY-SIDE INTERNATIONAL SYMBOL INDICATIONS.

CONSTRUCTION NOTE
CONTRACTOR SHALL TRIM TREES AS REQUIRED TO PROVIDE MOTORIST PROPER VIEW OF ALL SIGNAL HEADS AND EMERGENCY VEHICLE PREEMPTION EQUIPMENT. THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.

REVISIONS		
NO.	DATE	DESCRIPTION
1	06-08-06	MISCELLANEOUS REVISION
2	11-15-06	DETECTOR LOOPS AND SYSTEM DETECTOR LOOPS TO BE INSTALLED BY OTHERS AT A LATER DATE
3	11-15-06	EVP REVISIONS

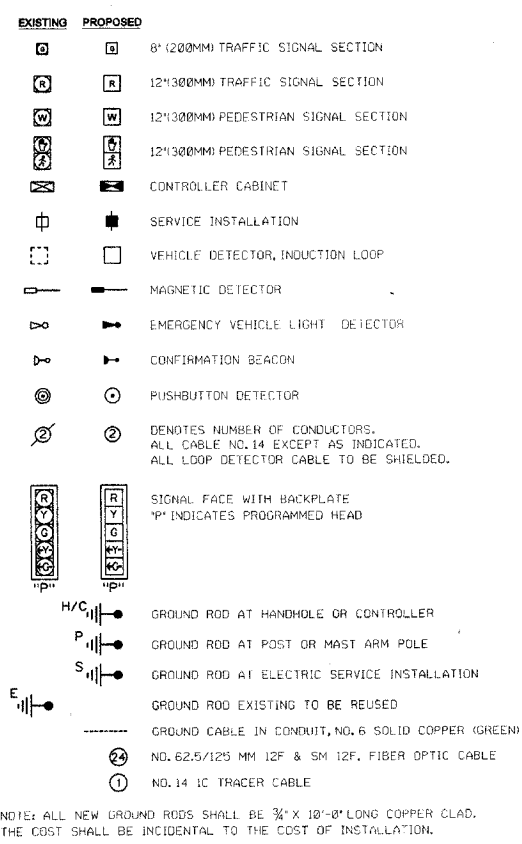
TRAFFIC SIGNAL INSTALLATION PLAN RIDGE AVE. @ HULL TERRACE EVANSTON, ILLINOIS	CITY OF EVANSTON 16_spr.dgn
	T16
SCALE: 1"=20' DATE: APRIL 28, 2006	RAWN BY: DWS CHECKED BY: PAW

Section
99-00215-00-TL
Sheet 17

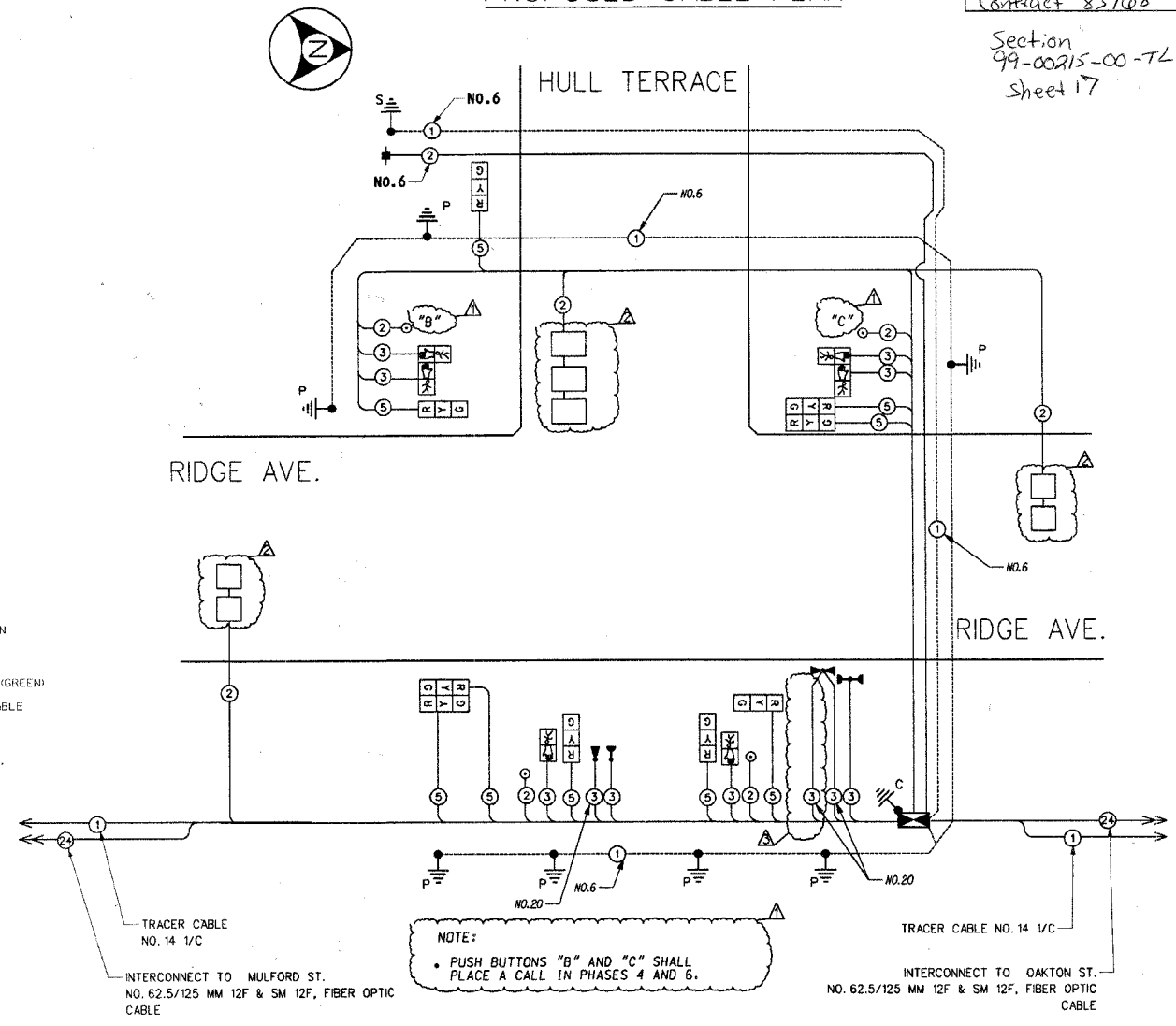
SCHEDULE OF QUANTITIES

QTY	UNIT	ITEM DESCRIPTION
70	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 8"
202	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 12"
50	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 24"
74	SQ FT	THERMOPLASTIC PAVEMENT MARKING REMOVAL
1	EACH	SERVICE INSTALLATION, POLE MOUNTED
12	FOOT	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL
8	FOOT	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL
803	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
34	FOOT	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL
91	FOOT	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL
98	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
7	EACH	HANDHOLE
1	EACH	DOUBLE HANDHOLE
30	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCIVER - FIBER OPTIC
855	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
403	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
877	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1032	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
859	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
244	FOOT	ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED
327	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
5	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.
28	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE D
5	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED
3	EACH	INDUCTIVE LOOP DETECTOR
267	FOOT	DETECTOR LOOP TYPE I
2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
3	EACH	REMOVE EXISTING HANDHOLE
6	EACH	REMOVE EXISTING CONCRETE FOUNDATION
2	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED
1	EACH	REMOVE EXISTING SERVICE INSTALLATION

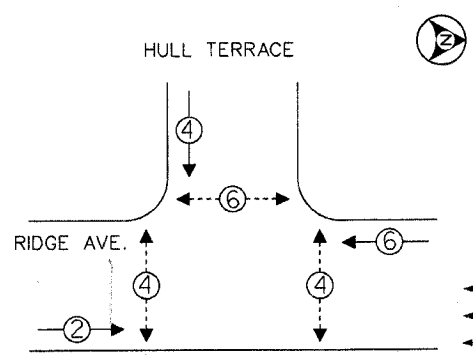
CABLE PLAN LEGEND



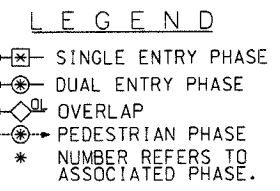
PROPOSED CABLE PLAN



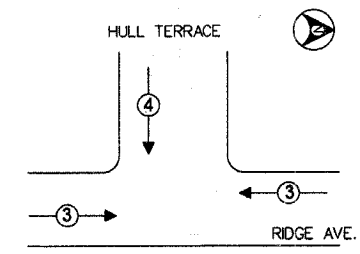
PROPOSED CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↓

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE	INCAND	LED XX OPERATIONS	
SIGNAL (RED)	9	135	17	0.50	76.5
(YELLOW)	9	135	25	0.25	56.25
(GREEN)	9	135	15	0.25	33.75
ARROW		135	12	0.10	
PED. SIGNAL	6	90	25	1.00	150
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	416.5

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'+L-2 =
E - M ARM POLE	24"	SIGNAL POST	2	BRACKET MOUNTED	13
	10	CONTROLLER CAB.	1	PED. PUSHBUTTON	4
	30"	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
		ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
		GROUND CABLE	1	POST MOUNTED	6

REVISIONS		
NO.	DATE	DESCRIPTION
Δ	06-08-06	MISCELLANEOUS REVISION
Δ	11-15-06	DETECTOR LOOPS AND SYSTEM DETECTOR LOOPS TO BE INSTALLED BY OTHERS AT A LATER DATE
Δ	11-15-06	EVP REVISIONS

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES

RIDGE AVE. @ HULL TERRACE
EVANSTON, ILLINOIS

CITY OF EVANSTON
17_cpR.dgn

T17

SCALE: NOT TO SCALE
DATE: APRIL 28, 2006

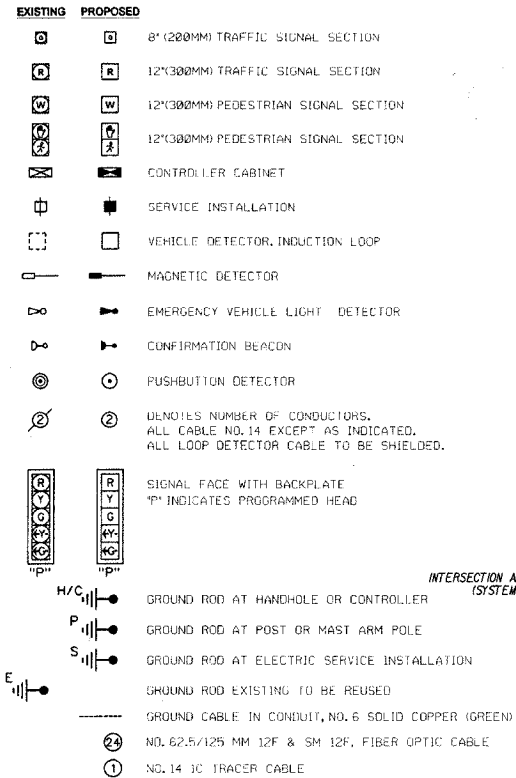
DRAWN BY: DWS
CHECKED BY: PAW

EVANSTON, ILLINOIS
ENERGY SUPPLY - CONTACT: MIKE LYNCH
PHONE: (847) 291-3329
COMPANY: COMED

SCHEDULE OF QUANTITIES

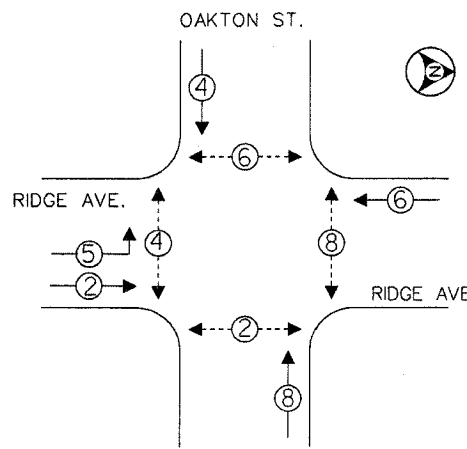
QTY	UNIT	ITEM DESCRIPTION
372	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 12"
82	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 24"
1	EACH	SERVICE INSTALLATION, POLE MOUNTED
4	FOOT	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL
665	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
49	FOOT	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL
33	FOOT	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL
236	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
6	EACH	HANDHOLE
1	EACH	DOUBLE HANDHOLE
14	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCIVER - FIBER OPTIC
772	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1/C
681	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1473	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1275	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
357	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
1681	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
495	FOOT	ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED
90	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.
28	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE D
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED
6	EACH	INDUCTIVE LOOP DETECTOR
629	FOOT	DETECTOR LOOP, TYPE I
2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
5	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
5	EACH	REMOVE EXISTING HANDHOLE
9	EACH	REMOVE EXISTING CONCRETE FOUNDATION
1	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
3	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED
1	EACH	REMOVE EXISTING SERVICE INSTALLATION

CABLE PLAN LEGEND

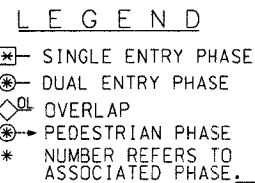


NOTE: ALL NEW GROUND RODS SHALL BE 3/4" X 10'-0" LONG COPPER CLAD. THE COST SHALL BE INCIDENTAL TO THE COST OF INSTALLATION.

PROPOSED CONTROLLER SEQUENCE



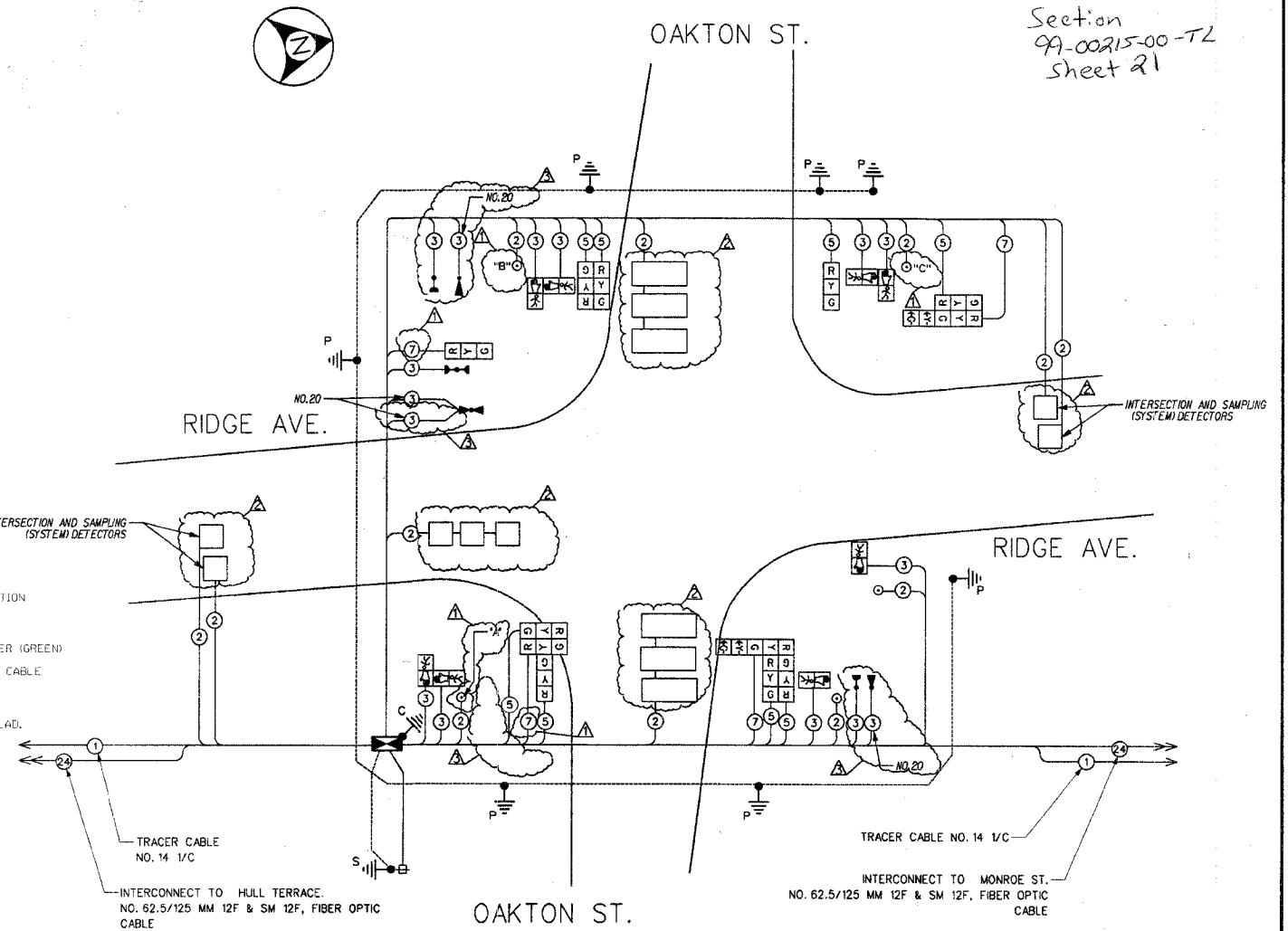
PHASE DESIGNATION DIAGRAM



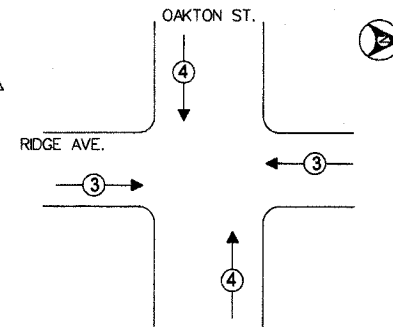
NOTE: NO. 14 7C CABLE IS TO BE PROVIDED AT 3 SECTION SIGNAL HEADS AS NOTED

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

PROPOSED CABLE PLAN



PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←→	↑↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED	XX OPERATIONS	
SIGNAL (RED)	12	135	17	0.50	102
	12	135	25	0.25	75
	12	135	15	0.25	45
ARROW	6	135	12	0.10	
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	522

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'+L-2'
E - M ARM POLE		SIGNAL POST	2	BRACKET MOUNTED	13
24"	10	CONTROLLER CAB.	1	PED. PUSHBUTTON	4
30"	15	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
		ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
		GROUND CABLE	1	POST MOUNTED	6

REVISIONS		
NO.	DATE	DESCRIPTION
Δ	06-08-06	MISCELLANEOUS REVISION
Δ	11-15-06	DETECTOR LOOPS AND SYSTEM DETECTOR LOOPS TO BE INSTALLED BY OTHERS AT A LATER DATE
Δ	11-15-06	EVP REVISIONS

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES

RIDGE AVE. @ OAKTON ST.
EVANSTON, ILLINOIS

CITY OF EVANSTON

21_cpr.dgn

T21

SCALE: NOT TO SCALE
DATE: APRIL 28, 2006

DRAWN BY: DWS
CHECKED BY: PAW

EVANSTON, ILLINOIS
ENERGY SUPPLY - CONTACT: MIKE LYNCH
PHONE: (847) 291-3329
COMPANY: COMED

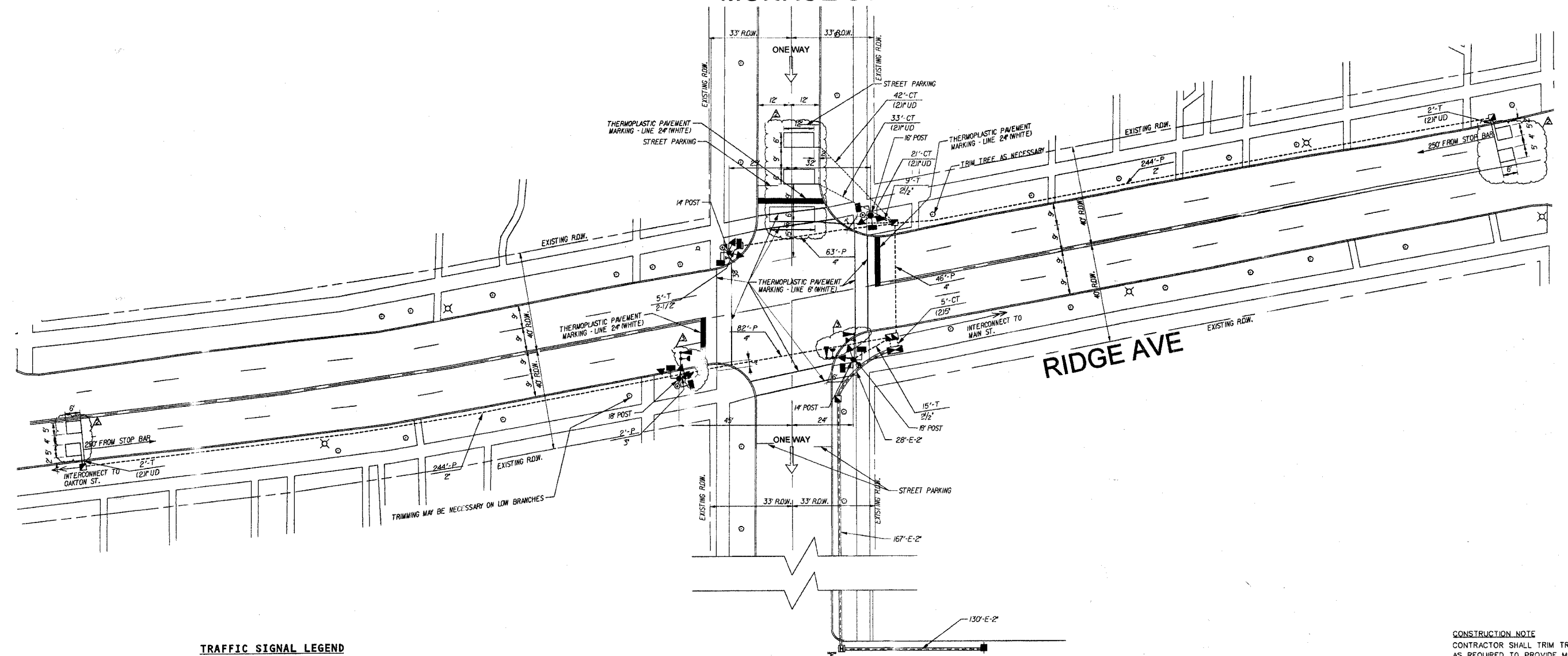
Section
99-00215-00-T2
Sheet 21

Section
99-00215-00-T2
Sheet 24



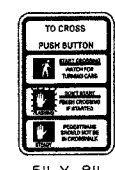
SCALE: 1"=20'

MONROE ST



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER			G.S. CONDUIT IN TRENCH OR PUSHED		
SERVICE INSTALLATION			PEDESTRIAN PUSHBUTTON DETECTOR		
SIGNAL HEAD			DETECTOR LOOP		
SIGNAL HEAD WITH BACKPLATE			CAST IRON JUNCTION BOX		
SIGNAL HEAD, PEDESTRIAN			EMERGENCY VEHICLE SYSTEM DETECTOR		
SIGNAL POST			CONFIRMATION BEACON		
MAST ARM ASSEMBLY AND POLE, STEEL			SIGNAL HEAD OPTICALLY PROGRAMMED		
MAST ARM ASSEMBLY AND POLE, ALUMINUM			CONDUIT SPLICE		
COMMON TRENCH	CT		WOOD POLE		
UNIT DUCT	UD		RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
HANDHOLE			VEHICLE DETECTOR, NON COMPENSATED		
HEAVY DUTY HANDHOLE			MAGNETIC TYPE		
DOUBLE HANDHOLE			RAILROAD CONTROL CABINET		
			STREET LIGHT		



5" X 8"

LOCATE AT EACH PEDESTRIAN BUTTON
4 REQUIRED
(INCIDENTAL TO CONTRACT)

GENERAL NOTE: SIGNAL HEADS SHALL CONTAIN L.E.D. MODULES FOR THE RED, YELLOW, GREEN BALL AND ARROW INDICATIONS. PEDESTRIAN HEADS SHALL CONTAIN 16" L.E.D. SIDE-BY-SIDE INTERNATIONAL SYMBOL INDICATIONS.

CONSTRUCTION NOTE
CONTRACTOR SHALL TRIM TREES AS REQUIRED TO PROVIDE MOTORIST PROPER VIEW OF ALL SIGNAL HEADS AND EMERGENCY VEHICLE PREEMPTION EQUIPMENT. THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.

TRAFFIC SIGNAL INSTALLATION PLAN

RIDGE AVE. @ MONROE ST.
EVANSTON, ILLINOIS

CITY OF EVANSTON

24_sp.dgn

T24

SCALE: 1"=20'
DATE: APRIL 28, 2006

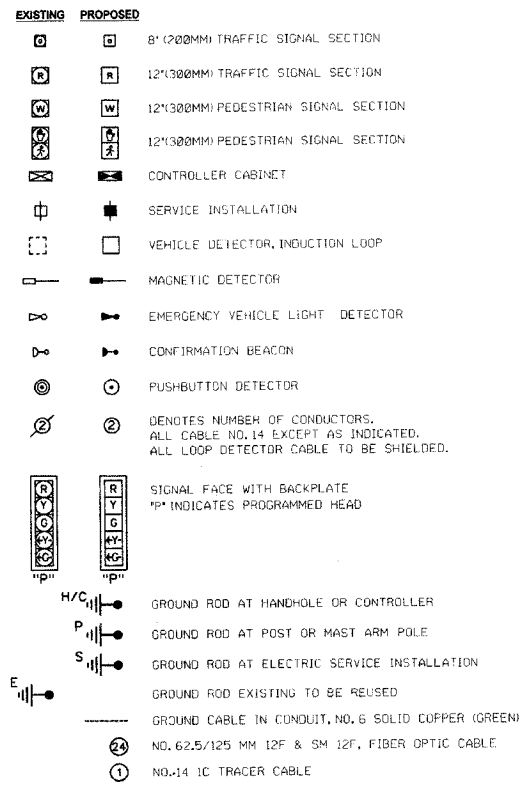
DRAWN BY: DWS
CHECKED BY: PAW

REVISIONS		
NO.	DATE	DESCRIPTION
1	06-08-06	MISCELLANEOUS REVISION
2	11-15-06	DETECTOR LOOPS AND SYSTEM DETECTOR LOOPS TO BE INSTALLED BY OTHERS AT A LATER DATE
3	11-15-06	EVP REVISIONS

SCHEDULE OF QUANTITIES

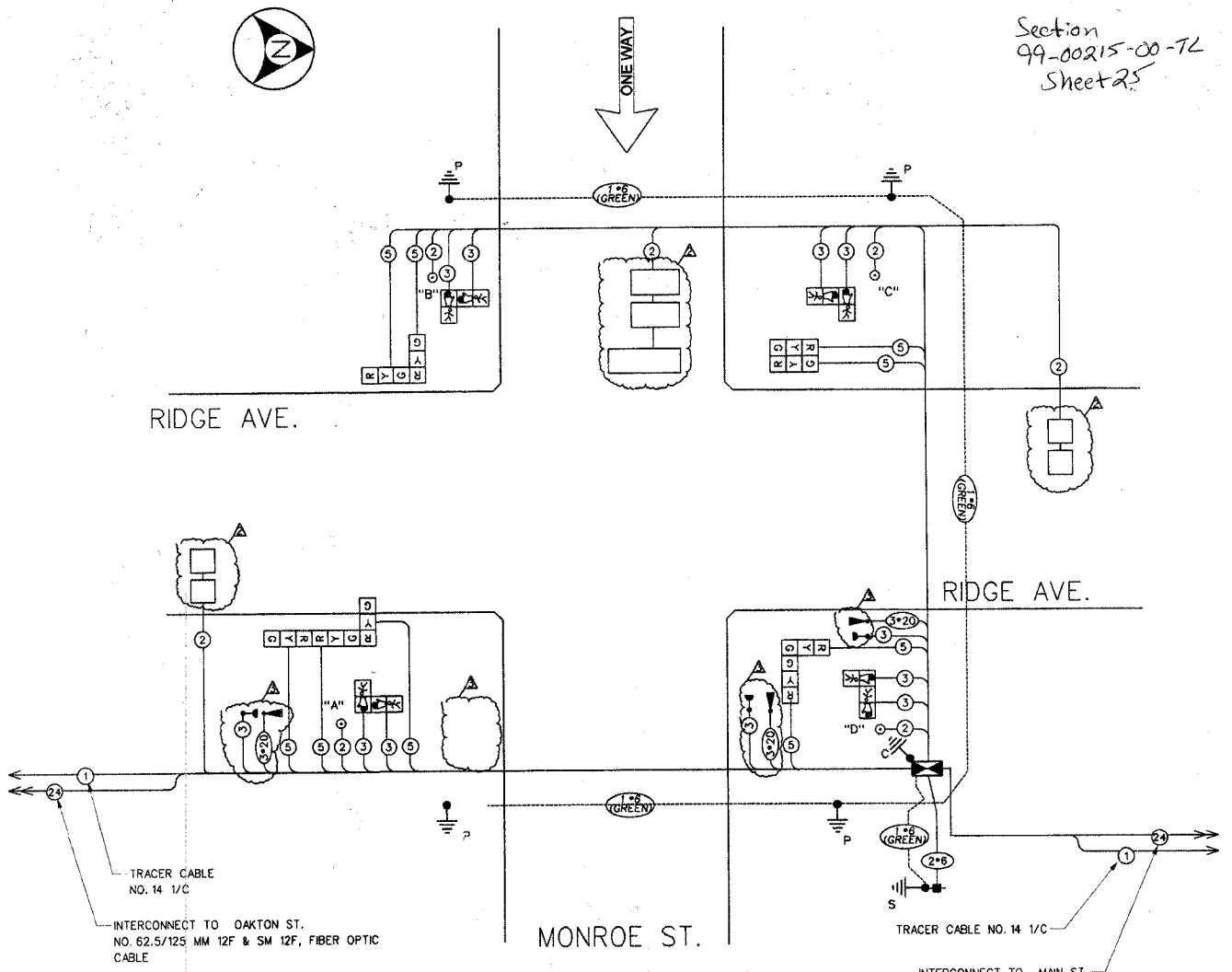
QTY	UNIT	ITEM DESCRIPTION
276	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 8"
64	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 24"
1	EACH	SERVICE INSTALLATION, POLE MOUNTED
29	FOOT	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL
813	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
12	FOOT	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL
191	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
8	EACH	HANDHOLE
1	EACH	HEAVY-DUTY HANDHOLE
1	EACH	DOUBLE HANDHOLE
39	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCEIVER - FIBER OPTIC
541	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 8 1C
430	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1196	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1057	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
772	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
272	FOOT	ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED
357	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 8 2C
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.
16	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE D
3	EACH	INDUCTIVE LOOP DETECTOR
266	FOOT	DETECTOR LOOP TYPE I
2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
2	EACH	REMOVE EXISTING HANDHOLE
5	EACH	REMOVE EXISTING CONCRETE FOUNDATION
3	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED
1	EACH	REMOVE EXISTING SERVICE INSTALLATION

CABLE PLAN LEGEND



NOTE: ALL NEW GROUND RODS SHALL BE 3/4" X 10'-0" LONG COPPER CLAD. THE COST SHALL BE INCIDENTAL TO THE COST OF INSTALLATION.

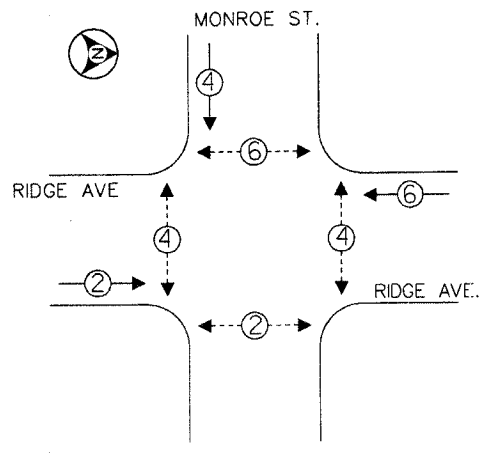
PROPOSED CABLE PLAN



NOTE:

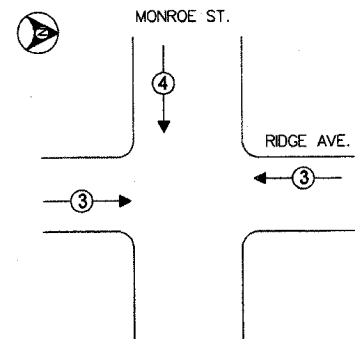
- PUSH BUTTON "A" AND "D" SHALL PLACE A CALL IN PHASES 2 AND 4
- PUSH BUTTON "B" AND "C" SHALL PLACE A CALL IN PHASES 4 AND 6

PROPOSED CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	
MOVEMENT	←	→	↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	XINCAND	LED XX OPERATIONS	WATTAGE	
SIGNAL (RED)	9	135	17	0.50	76.5
(YELLOW)	9	135	25	0.25	56.25
(GREEN)	9	135	15	0.25	33.75
ARROW	135	12	0.10		
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
TOTAL =					466.5

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'+L-2 =
E - M ARM POLE		SIGNAL POST	2	BRACKET MOUNTED	13
24"	10	CONTROLLER CAB.	1	PED. PUSHBUTTON	4
30"	15	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
		ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
		GROUND CABLE	1	POST MOUNTED	6

REVISIONS		
NO.	DATE	DESCRIPTION
Δ	06-08-06	MISCELLANEOUS REVISION
Δ	11-15-06	DETECTOR LOOPS AND SYSTEM DETECTOR LOOPS TO BE INSTALLED BY OTHERS AT A LATER DATE
Δ	11-15-06	EVP REVISIONS

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES

RIDGE AVE. @ MONROE ST. EVANSTON, ILLINOIS

CITY OF EVANSTON
25_cp.dgn

T25

SCALE: NOT TO SCALE
DATE: APRIL 28, 2006

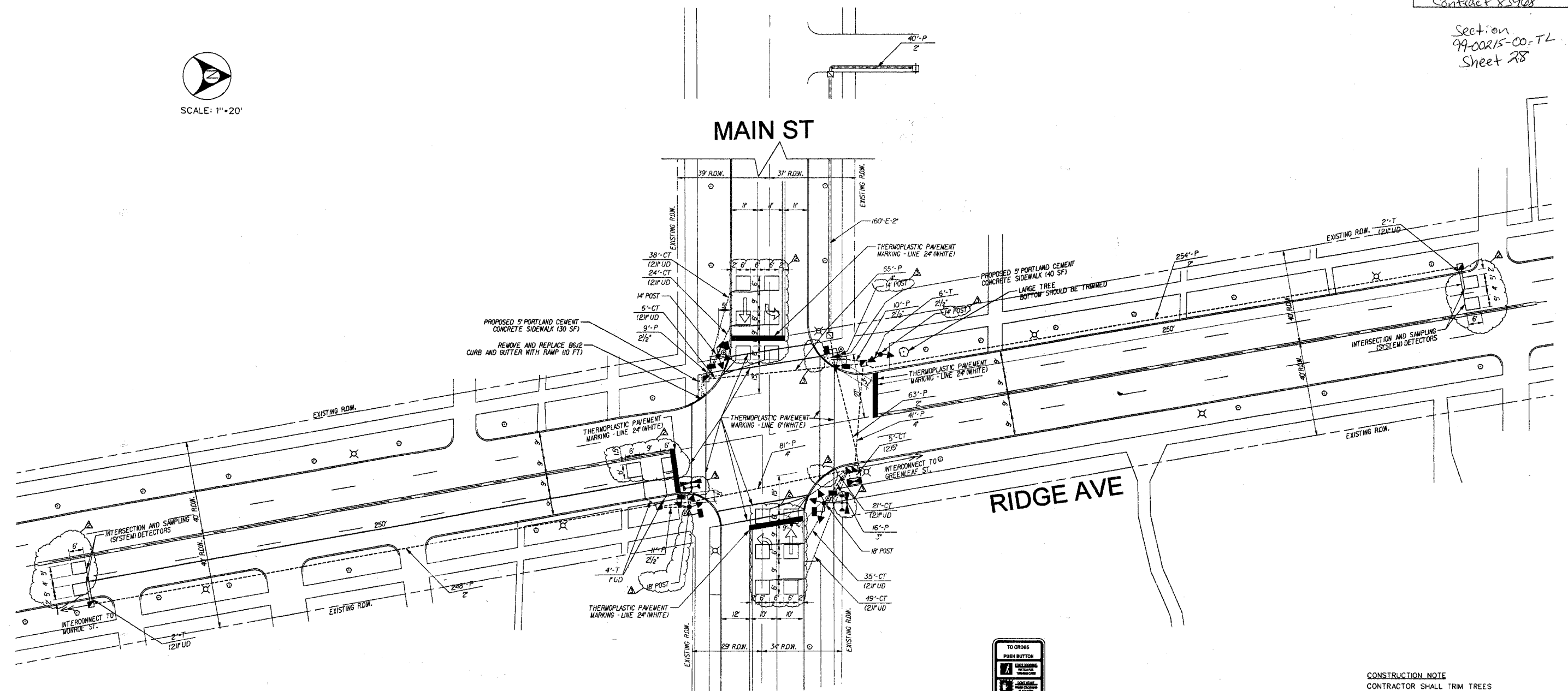
DRAWN BY: DWS
CHECKED BY: PAW

Section
99-00215-00-TL
Sheet 28



MAIN ST

RIDGE AVE



LOCATE AT EACH PEDESTRIAN BUTTON
4 REQUIRED
(INCIDENTAL TO CONTRACT)

CONSTRUCTION NOTE
CONTRACTOR SHALL TRIM TREES AS REQUIRED TO PROVIDE MOTORIST PROPER VIEW OF ALL SIGNAL HEADS AND EMERGENCY VEHICLE PREEMPTION EQUIPMENT. THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER			G.S. CONDUIT IN TRENCH OR PUSHED		
SERVICE INSTALLATION			PEDESTRIAN PUSHBUTTON DETECTOR		
SIGNAL HEAD			DETECTOR LOOP		
SIGNAL HEAD WITH BACKPLATE			CAST IRON JUNCTION BOX		
SIGNAL HEAD, PEDESTRIAN			EMERGENCY VEHICLE SYSTEM DETECTOR		
SIGNAL POST			CONFIRMATION BEACON		
MAST ARM ASSEMBLY AND POLE, STEEL			SIGNAL HEAD OPTICALLY PROGRAMMED		
MAST ARM ASSEMBLY AND POLE, ALUMINUM			CONDUIT SPLICE		
COMMON TRENCH	CT		WOOD POLE		
UNIT DUCT	UD		RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
HANDHOLE			VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
HEAVY DUTY HANDHOLE			RAILROAD CONTROL CABINET		
DOUBLE HANDHOLE			STREET LIGHT		
PORTLAND CEMENT CONCRETE SIDEWALK, 5"					

GENERAL NOTE: SIGNAL HEADS SHALL CONTAIN L.E.D. MODULES FOR THE RED, YELLOW, GREEN BALL AND ARROW INDICATIONS. PEDESTRIAN HEADS SHALL CONTAIN 16" L.E.D. SIDE-BY-SIDE INTERNATIONAL SYMBOL INDICATIONS.

TRAFFIC SIGNAL INSTALLATION PLAN

RIDGE AVE. @ MAIN ST.
EVANSTON, ILLINOIS

CITY OF EVANSTON

28_sp.dgn

T28

SCALE: 1"=20'
DATE: APRIL 28, 2006

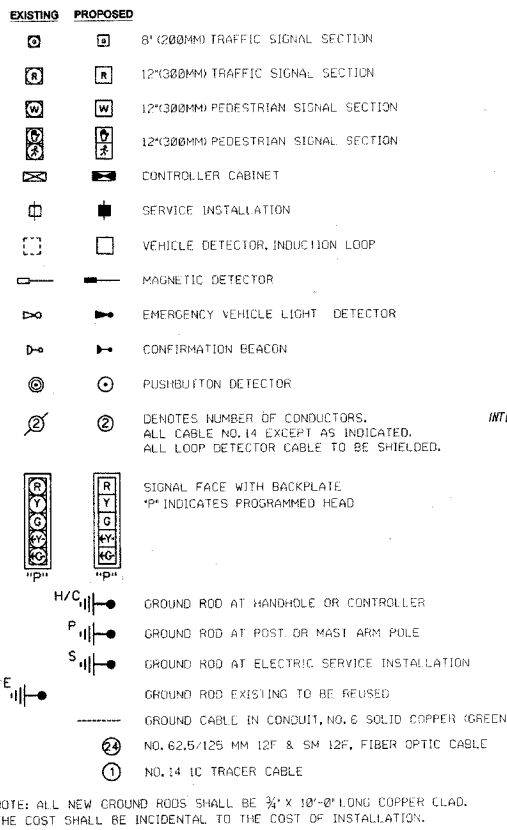
DRAWN BY: DWS
CHECKED BY: PAW

REVISIONS		
NO.	DATE	DESCRIPTION
1	06-08-06	MISCELLANEOUS REVISION
2	11-15-06	DETECTOR LOOPS AND SYSTEM DETECTOR LOOPS TO BE INSTALLED BY OTHERS AT A LATER DATE
3	11-15-06	EVP REVISIONS

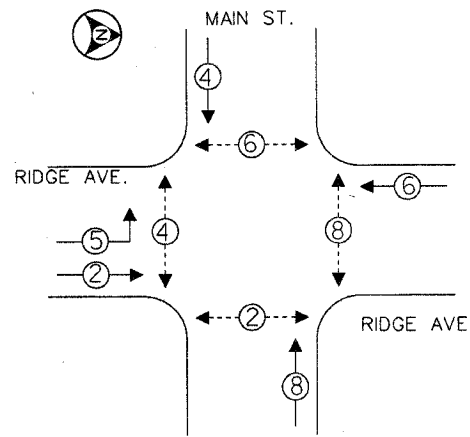
SCHEDULE OF QUANTITIES

QTY	UNIT	ITEM DESCRIPTION
316	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 6"
82	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 24"
84	SQ FT	THERMOPLASTIC PAVEMENT MARKING REMOVAL
1	EACH	SERVICE INSTALLATION, POLE MOUNTED
5	FOOT	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL
753	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
44	FOOT	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL
16	FOOT	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL
209	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
7	EACH	HANDHOLE
1	EACH	DOUBLE HANDHOLE
15	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCEIVER - FIBER OPTIC
518	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
477	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1236	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1007	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
394	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
1891	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
446	FOOT	ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED
312	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.
20	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE D
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
9	EACH	INDUCTIVE LOOP DETECTOR
563	FOOT	DETECTOR LOOP, TYPE-1
2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
2	EACH	REMOVE EXISTING HANDHOLE
5	EACH	REMOVE EXISTING CONCRETE FOUNDATION
2	EACH	SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED
1	EACH	REMOVE EXISTING SERVICE INSTALLATION

CABLE PLAN LEGEND



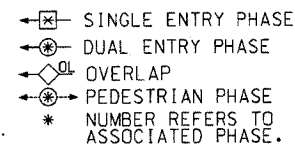
PROPOSED CONTROLLER SEQUENCE



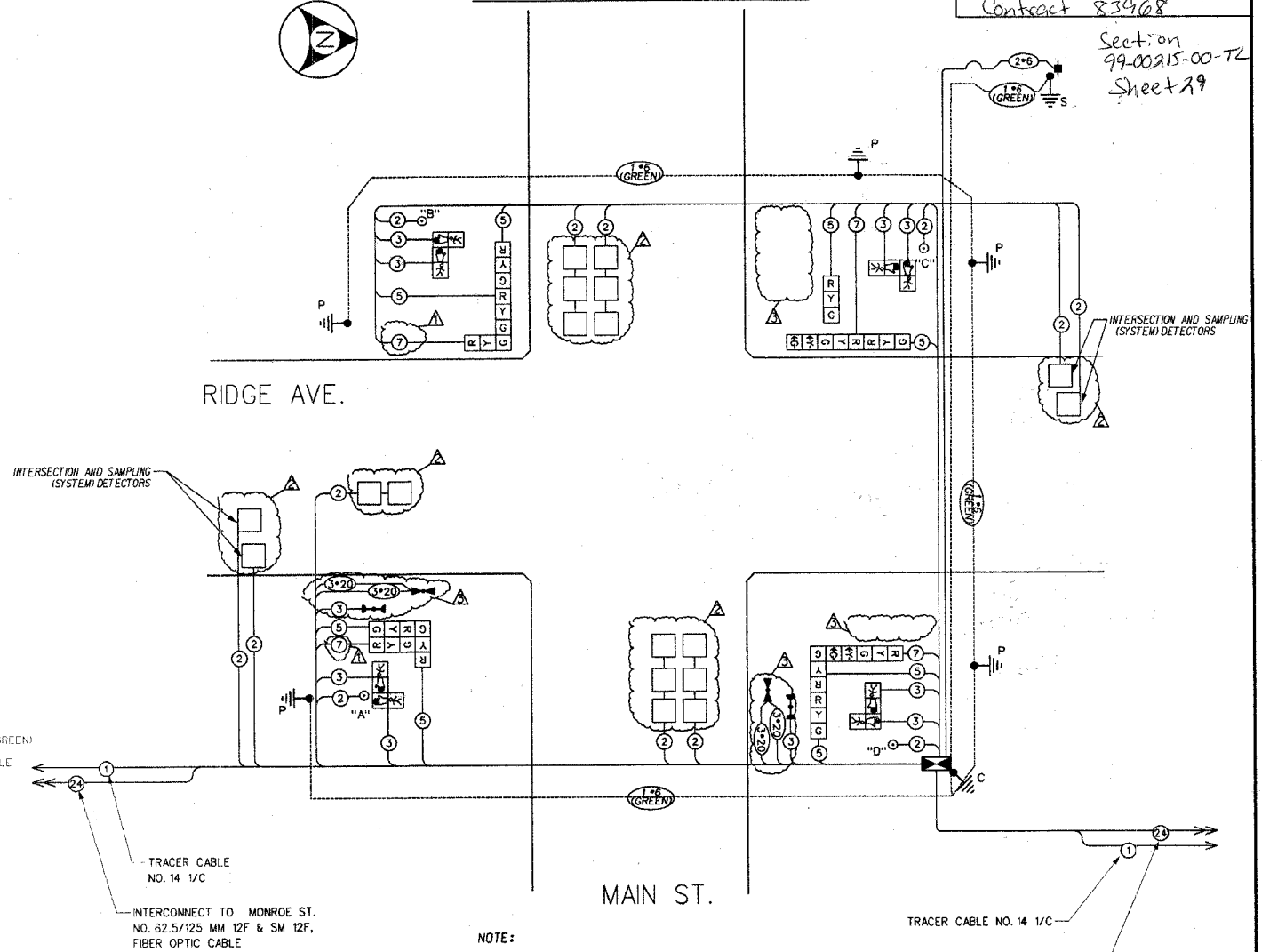
PHASE DESIGNATION DIAGRAM

NOTE: NO. 14 7C CABLE IS TO BE PROVIDED AT 3 SECTION SIGNAL HEADS AS NOTED

LEGEND



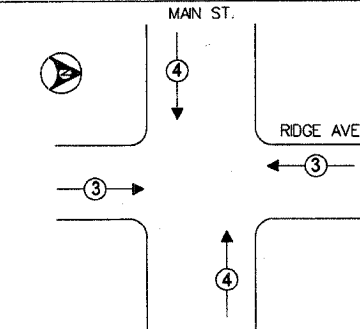
PROPOSED CABLE PLAN



NOTE:

- PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
- PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
- PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
- PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←→	↑↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
TYPE	NO. OF LAMPS	WATTAGE	LED XX OPERATIONS		
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	526.8
ENERGY COSTS - BILLED TO: CITY OF EVANSTON (ADDRESS)					
ENERGY SUPPLY - CONTACT: MIKE LYNCH (847) 291-3329 COMPANY: COMED					

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
D - CONTROLLER	4	DOUBLE HANDHOLE	15	MAST ARM (L) POLE	20' ±1-2 =
E - M ARM POLE	24"	SIGNAL POST	2	BRACKET MOUNTED	13
	30"	CONTROLLER CAB.	1	PED. PUSHBUTTON	4
		FIBER OPTIC	13	ELECTRIC SERVICE	13.5
		ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
		GROUND CABLE	1	POST MOUNTED	6

REVISIONS		
NO.	DATE	DESCRIPTION
△	06-08-06	MISCELLANEOUS REVISION
△	11-15-06	DETECTOR LOOPS AND SYSTEM DETECTOR LOOPS TO BE INSTALLED BY OTHERS AT A LATER DATE
△	11-15-06	EVP REVISIONS

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES

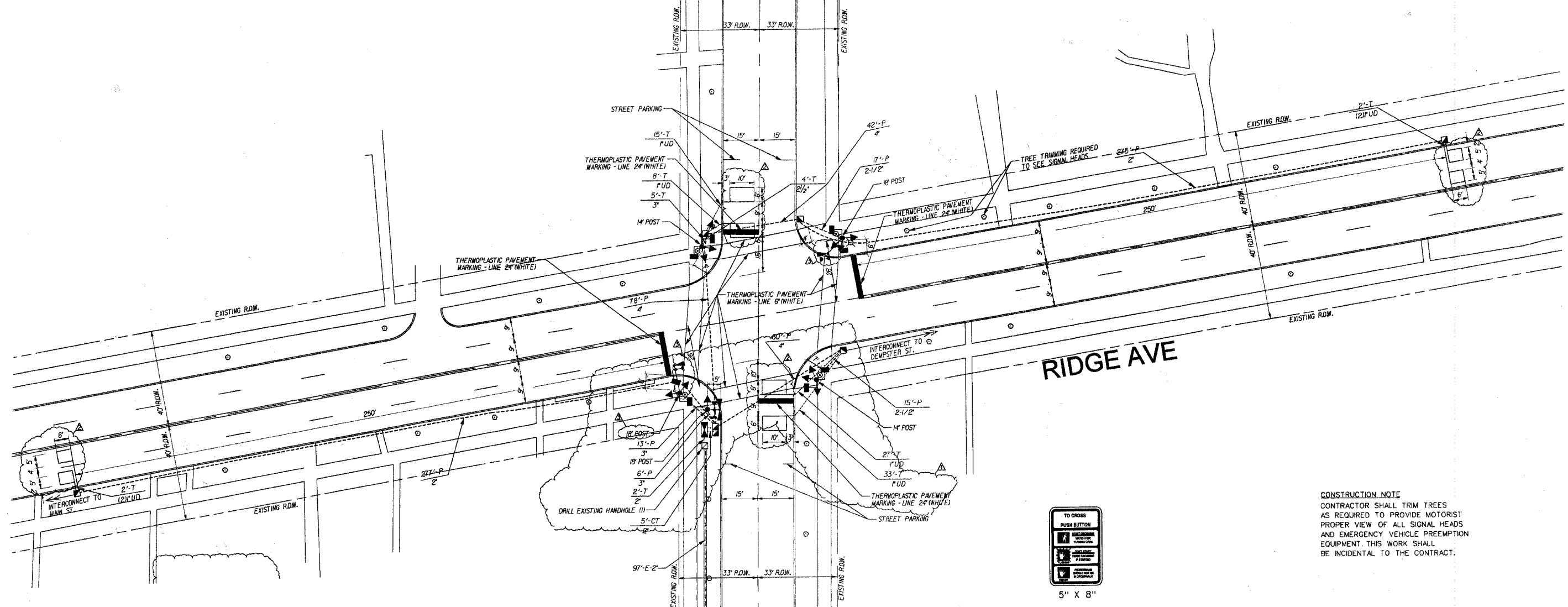
RIDGE AVE. @ MAIN ST. EVANSTON, ILLINOIS

CITY OF EVANSTON
29_cp.dgn
T29
SCALE: NOT TO SCALE
DATE: APRIL 28, 2006
DRAWN BY: DWS
CHECKED BY: PAW

Section
99-00215-00-TL
Sheet 32



GREENLEAF ST



LOCATE AT EACH PEDESTRIAN BUTTON
4 REQUIRED
(INCIDENTAL TO CONTRACT)

CONSTRUCTION NOTE
CONTRACTOR SHALL TRIM TREES AS REQUIRED TO PROVIDE MOTORIST PROPER VIEW OF ALL SIGNAL HEADS AND EMERGENCY VEHICLE PREEMPTION EQUIPMENT. THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.

GENERAL NOTE: SIGNAL HEADS SHALL CONTAIN L.E.D. MODULES FOR THE RED, YELLOW, GREEN BALL AND ARROW INDICATIONS. PEDESTRIAN HEADS SHALL CONTAIN 16" L.E.D. SIDE-BY-SIDE INTERNATIONAL SYMBOL INDICATIONS.

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER			G.S. CONDUIT IN TRENCH OR PUSHED		
SERVICE INSTALLATION			PEDESTRIAN PUSHBUTTON DETECTOR		
SIGNAL HEAD			DETECTOR LOOP		
SIGNAL HEAD WITH BACKPLATE			CAST IRON JUNCTION BOX		
SIGNAL HEAD, PEDESTRIAN			EMERGENCY VEHICLE SYSTEM DETECTOR		
SIGNAL POST			CONFIRMATION BEACON		
MAST ARM ASSEMBLY AND POLE, STEEL			SIGNAL HEAD OPTICALLY PROGRAMMED		
MAST ARM ASSEMBLY AND POLE, ALUMINUM			CONDUIT SPLICE		
COMMON TRENCH	CT		WOOD POLE		
UNIT DUCT	UD		RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
HANDHOLE			VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
HEAVY DUTY HANDHOLE			RAILROAD CONTROL CABINET		
DOUBLE HANDHOLE			STREET LIGHT		

REVISIONS		
NO.	DATE	DESCRIPTION
06-08-06		MISCELLANEOUS REVISION
11-15-06		DETECTOR LOOPS AND SYSTEM DETECTOR LOOPS TO BE INSTALLED BY OTHERS AT A LATER DATE
11-15-06		EVP REVISIONS

TRAFFIC SIGNAL INSTALLATION PLAN

RIDGE AVE. @ GREENLEAF ST.
EVANSTON, ILLINOIS

CITY OF EVANSTON

32-sp. dgn

T32

SCALE: 1"=20'
DATE: APRIL 28, 2006

DRAWN BY: DWS
CHECKED BY: PAW

SCHEDULE OF QUANTITIES

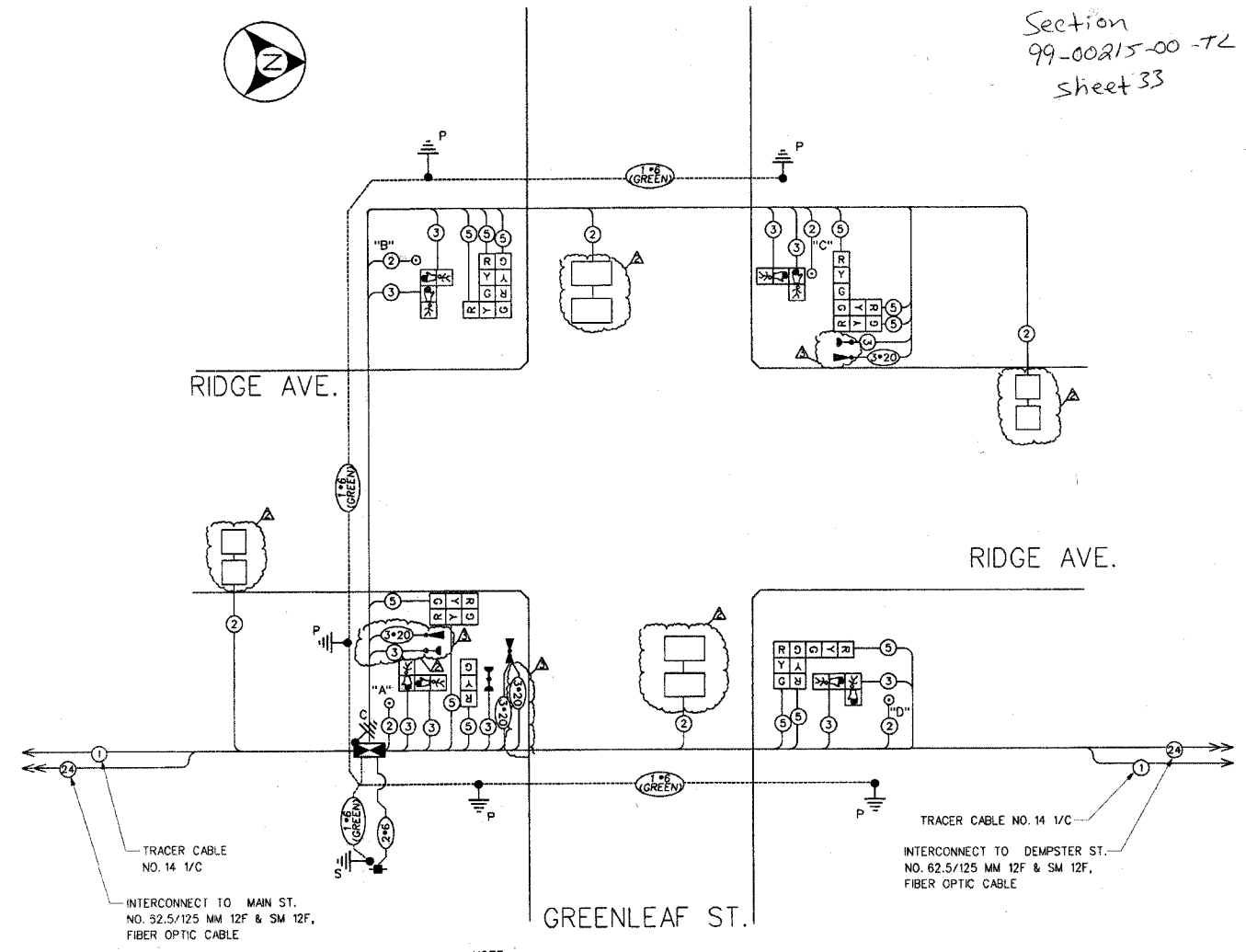
QTY	UNIT	ITEM DESCRIPTION
288	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 6"
66	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 24"
1	EACH	SERVICE INSTALLATION, POLE MOUNTED
5	FOOT	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL
605	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
32	FOOT	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL
13	FOOT	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL
180	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
5	EACH	HANDHOLE
1	EACH	DOUBLE HANDHOLE
15	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCIVER - FIBER OPTIC
550	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
481	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1286	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1503	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
917	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
309	FOOT	ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED
201	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.
20	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE D
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
4	EACH	INDUCTIVE LOOP DETECTOR
254	FOOT	DETECTOR LOOP, TYPE 1
2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
2	EACH	REMOVE EXISTING HANDHOLE
5	EACH	REMOVE EXISTING CONCRETE FOUNDATION
1	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
3	EACH	SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED
1	EACH	REMOVE EXISTING SERVICE INSTALLATION

CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
□	□	8" (200MM) TRAFFIC SIGNAL SECTION
□	□	12" (300MM) TRAFFIC SIGNAL SECTION
□	□	12" (300MM) PEDESTRIAN SIGNAL SECTION
□	□	12" (300MM) PEDESTRIAN SIGNAL SECTION
□	□	CONTROLLER CABINET
□	□	SERVICE INSTALLATION
□	□	VEHICLE DETECTOR, INDUCTION LOOP
□	□	MAGNETIC DETECTOR
□	□	EMERGENCY VEHICLE LIGHT DETECTOR
□	□	CONFIRMATION BEACON
□	□	PUSHBUTTON DETECTOR
□	□	⊙ DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
□	□	□ SIGNAL FACE WITH BACKPLATE
□	□	⊙ *P INDICATES PROGRAMMED HEAD
□	□	H/C GROUND ROD AT HANDHOLE OR CONTROLLER
□	□	P GROUND ROD AT POST OR MAST ARM POLE
□	□	S GROUND ROD AT ELECTRIC SERVICE INSTALLATION
□	□	E GROUND ROD EXISTING TO BE REUSED
□	□	— GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)
□	□	⊙ NO. 62.5/125 MM 12F & SM 12F, FIBER OPTIC CABLE
□	□	⊙ NO. 14 1C TRACER CABLE

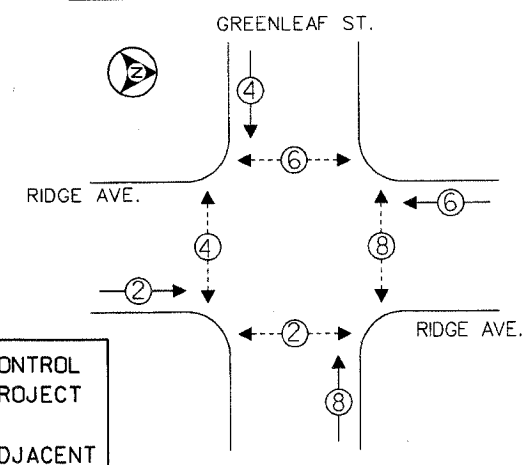
NOTE: ALL NEW GROUND RODS SHALL BE 3/4" X 12'-0" LONG COPPER CLAD. THE COST SHALL BE INCIDENTAL TO THE COST OF INSTALLATION.

PROPOSED CABLE PLAN

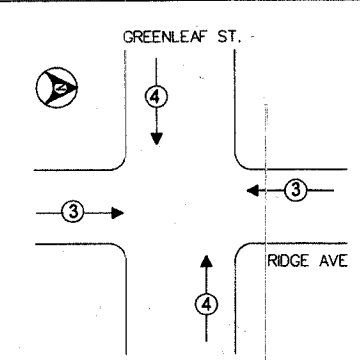


Section 99-00215-00-72
Sheet 33

PROPOSED CONTROLLER SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND

- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←→	↑↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. OF LAMPS	INCAND.	LED	XX OPERATIONS	TOTAL WATTAGE
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW		135	12	0.10	
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
TOTAL =					522

ENERGY COSTS TO: CITY OF EVANSTON

ENERGY SUPPLY - CONTACT: MIKE LYNCH
PHONE: (847) 291-3329
COMPANY: COMED

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'+L-2 =
E - M ARM POLE		SIGNAL POST	2	BRACKET MOUNTED	13
	24"	CONTROLLER CAB.	1	PED. PUSHBUTTON	4
	30"	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
		ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
		GROUND CABLE	1	POST MOUNTED	6

REVISIONS		
NO.	DATE	DESCRIPTION
06-08-06		MISCELLANEOUS REVISION
11-15-06		DETECTOR LOOPS AND SYSTEM DETECTOR LOOPS TO BE INSTALLED BY OTHERS AT A LATER DATE
11-15-06		EVP REVISIONS

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES

RIDGE AVE. @ GREENLEAF ST.
EVANSTON, ILLINOIS

CITY OF EVANSTON
33_cp.dgn

T33

SCALE: NOT TO SCALE
DATE: APRIL 28, 2006

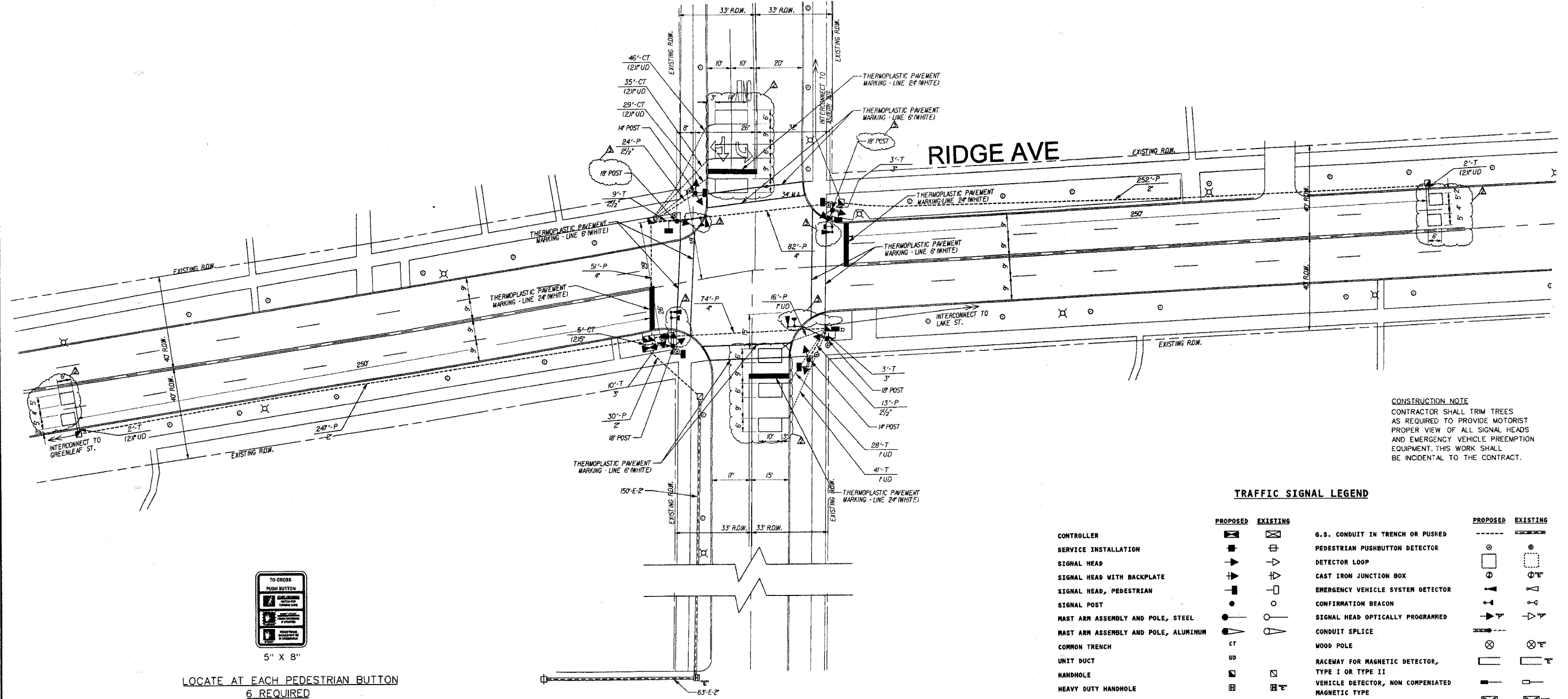
DRAWN BY: DWS
CHECKED BY: PAW

Section
99-00215-00-TL
Sheet 36



DEMPSTER ST

RIDGE AVE



CONSTRUCTION NOTE
CONTRACTOR SHALL TRIM TREES AS REQUIRED TO PROVIDE MOTORIST PROPER VIEW OF ALL SIGNAL HEADS AND EMERGENCY VEHICLE PREEMPTION EQUIPMENT. THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER			G.S. CONDUIT IN TRENCH OR PUSHED		
SERVICE INSTALLATION			PEDESTRIAN PUSHBUTTON DETECTOR		
SIGNAL HEAD			DETECTOR LOOP		
SIGNAL HEAD WITH BACKPLATE			CAST IRON JUNCTION BOX		
SIGNAL HEAD, PEDESTRIAN			EMERGENCY VEHICLE SYSTEM DETECTOR		
SIGNAL POST			CONFIRMATION BEACON		
MAST ARM ASSEMBLY AND POLE, STEEL			SIGNAL HEAD OPTICALLY PROGRAMMED		
MAST ARM ASSEMBLY AND POLE, ALUMINUM			CONDUIT SPLICE		
COMMON TRENCH			WOOD POLE		
UNIT DUCT			RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
HANDHOLE			VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
HEAVY DUTY HANDHOLE			RAILROAD CONTROL CABINET		
DOUBLE HANDHOLE			STREET LIGHT		



5" X 8"

LOCATE AT EACH PEDESTRIAN BUTTON
6 REQUIRED
(INCIDENTAL TO CONTRACT)

GENERAL NOTE: SIGNAL HEADS SHALL CONTAIN L.E.D. MODULES FOR THE RED, YELLOW, GREEN BALL AND ARROW INDICATIONS. PEDESTRIAN HEADS SHALL CONTAIN 16" L.E.D. SIDE-BY-SIDE INTERNATIONAL SYMBOL INDICATIONS.

REVISIONS		
NO.	DATE	DESCRIPTION
1	06-08-06	MISCELLANEOUS REVISION
2	11-15-06	DETECTOR LOOPS AND SYSTEM DETECTOR LOOPS TO BE INSTALLED BY OTHERS AT A LATER DATE
3	11-15-06	EVP REVISIONS

TRAFFIC SIGNAL INSTALLATION PLAN

**RIDGE AVE. @ DEMPSTER ST.
EVANSTON, ILLINOIS**

CITY OF EVANSTON
36.sp.dgn

T36

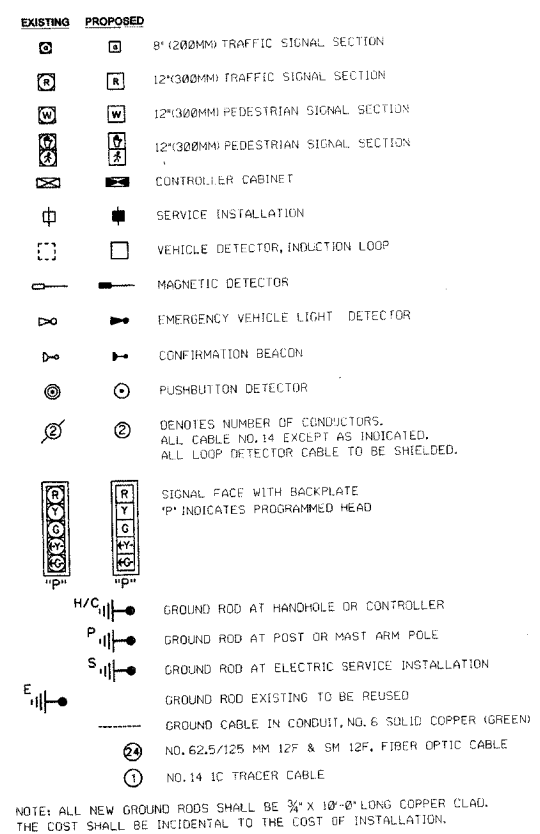
SCALE: 1"=20'
DATE: APRIL 28, 2006

DRAWN BY: DWS
CHECKED BY: PAW

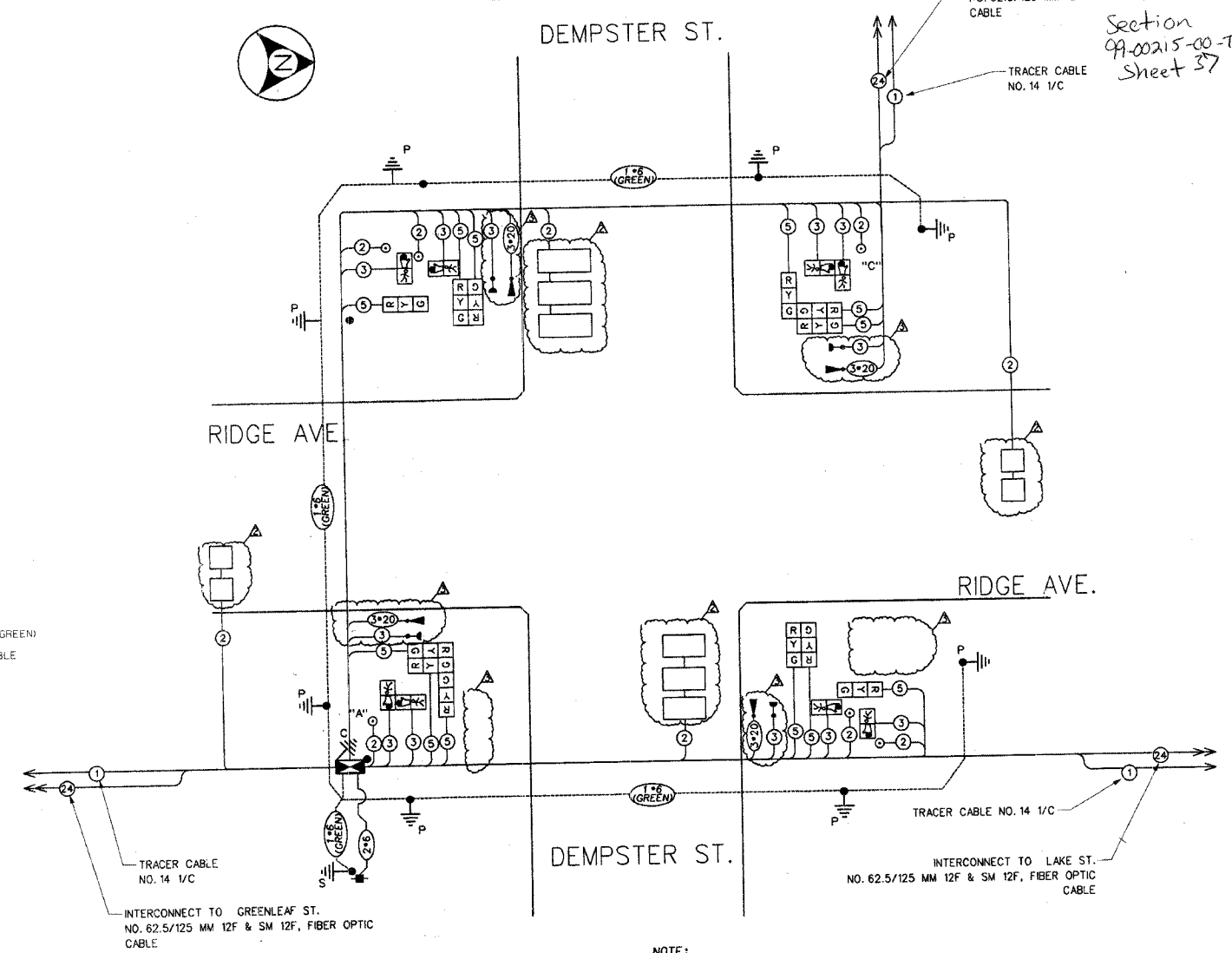
SCHEDULE OF QUANTITIES

QTY	UNIT	ITEM DESCRIPTION
316	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 6"
74	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 24"
1	EACH	SERVICE INSTALLATION, POLE MOUNTED
11	FOOT	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL
18	FOOT	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL
742	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
37	FOOT	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL
207	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
6	EACH	HANDHOLE
1	EACH	HEAVY-DUTY HANDHOLE
1	EACH	DOUBLE HANDHOLE
39	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCIVER - FIBER OPTIC
610	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 8 1/C
813	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1460	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1491	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
849	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
497	FOOT	ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED
271	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 8 2C
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
4	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.
24	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE D
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED
4	EACH	INDUCTIVE LOOP DETECTOR
360	FOOT	DETECTOR LOOP, TYPE 1
2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
6	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
3	EACH	REMOVE EXISTING HANDHOLE
5	EACH	REMOVE EXISTING CONCRETE FOUNDATION
2	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED
1	EACH	REMOVE EXISTING SERVICE INSTALLATION

CABLE PLAN LEGEND



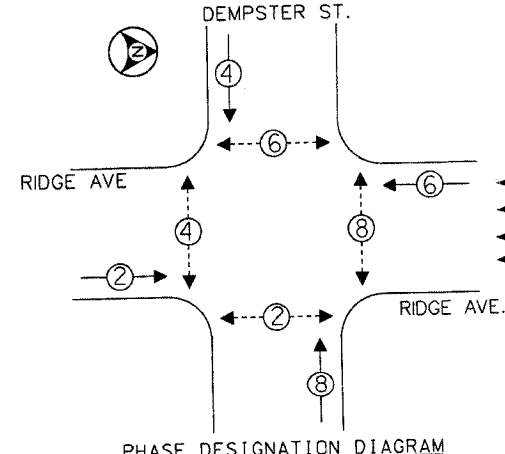
PROPOSED CABLE PLAN



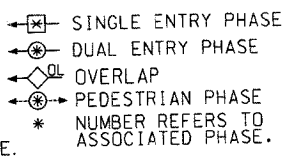
NOTE:

- PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
- PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8

PROPOSED CONTROLLER SEQUENCE

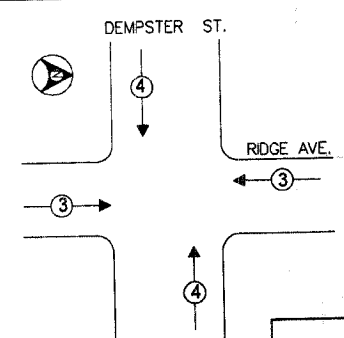


LEGEND



PHASE DESIGNATION DIAGRAM

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←→	↑↓

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED XX OPERATIONS	WATTAGE	
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW					
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	4	84	25	1.00	100
FLASHER				0.50	
TOTAL =					622

ENERGY COSTS - BILLED TO: CITY OF EVANSTON (ADDRESS)

ENERGY SUPPLY - CONTACT: MIKE LYNCH PHONE: (847) 291-3329 COMPANY: COMED

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'+L-2 =
E - M ARM POLE		SIGNAL POST	2	BRACKET MOUNTED	13
24"	10	CONTROLLER CAB.	1	PEDE. PUSHBUTTON	4
30"	15	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
		ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
		GROUND CABLE	1	POST MOUNTED	6

NO.	DATE	DESCRIPTION
Δ	06-08-06	MISCELLANEOUS REVISION
Δ	11-15-06	DETECTOR LOOPS AND SYSTEM DETECTOR LOOPS TO BE INSTALLED BY OTHERS AT A LATER DATE
Δ	11-15-06	EVP REVISIONS

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES

RIDGE AVE. @ DEMPSTER ST. EVANSTON, ILLINOIS

CITY OF EVANSTON
37-op.dgn

T37

SCALE: NOT TO SCALE
DATE: APRIL 28, 2006

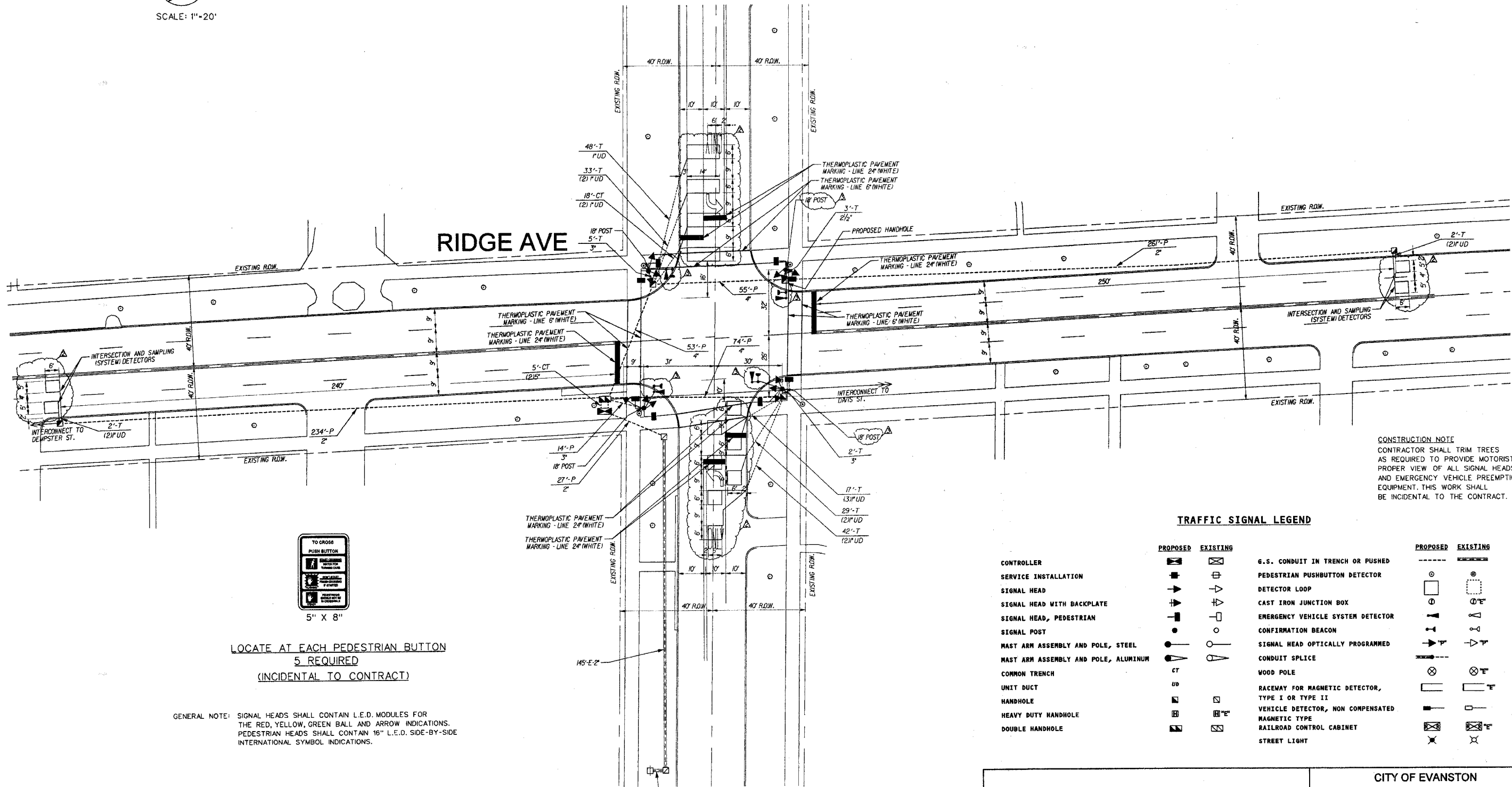
DRAWN BY: DWS
CHECKED BY: PAW

Section
99-00215-00-TL
Sheet 40



LAKE ST

RIDGE AVE



CONSTRUCTION NOTE
CONTRACTOR SHALL TRIM TREES AS REQUIRED TO PROVIDE MOTORIST PROPER VIEW OF ALL SIGNAL HEADS AND EMERGENCY VEHICLE PREEMPTION EQUIPMENT. THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.



LOCATE AT EACH PEDESTRIAN BUTTON
5 REQUIRED
(INCIDENTAL TO CONTRACT)

GENERAL NOTE: SIGNAL HEADS SHALL CONTAIN L.E.D. MODULES FOR THE RED, YELLOW, GREEN BALL AND ARROW INDICATIONS. PEDESTRIAN HEADS SHALL CONTAIN 16" L.E.D. SIDE-BY-SIDE INTERNATIONAL SYMBOL INDICATIONS.

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER			G.S. CONDUIT IN TRENCH OR PUSHED		
SERVICE INSTALLATION			PEDESTRIAN PUSHBUTTON DETECTOR		
SIGNAL HEAD			DETECTOR LOOP		
SIGNAL HEAD WITH BACKPLATE			CAST IRON JUNCTION BOX		
SIGNAL HEAD, PEDESTRIAN			EMERGENCY VEHICLE SYSTEM DETECTOR		
SIGNAL POST			CONFIRMATION BEACON		
MAST ARM ASSEMBLY AND POLE, STEEL			SIGNAL HEAD OPTICALLY PROGRAMMED		
MAST ARM ASSEMBLY AND POLE, ALUMINUM			CONDUIT SPLICE		
COMMON TRENCH	CT		WOOD POLE		
UNIT DUCT	UD		RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
HANDHOLE			VEHICLE DETECTOR, NON COMPENSATED		
HEAVY DUTY HANDHOLE			MAGNETIC TYPE		
DOUBLE HANDHOLE			RAILROAD CONTROL CABINET		
			STREET LIGHT		

REVISIONS		
NO.	DATE	DESCRIPTION
1	06-08-06	MISCELLANEOUS REVISION
2	11-15-06	DETECTOR LOOPS AND SYSTEM DETECTOR LOOPS TO BE INSTALLED BY OTHERS AT A LATER DATE
3	11-15-06	EVP REVISIONS

TRAFFIC SIGNAL INSTALLATION PLAN

RIDGE AVE. @ LAKE ST.
EVANSTON, ILLINOIS

CITY OF EVANSTON
40...sp.dgn

T40

SCALE: 1"=20'
DATE: APRIL 28, 2006

DRAWN BY: DWS
CHECKED BY: PAW

Section
99.00215-00-TL
Sheet 41

SCHEDULE OF QUANTITIES

QTY	UNIT	ITEM DESCRIPTION
288	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 6"
78	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 24"
1	EACH	SERVICE INSTALLATION, POLE MOUNTED
5	FOOT	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL
7	FOOT	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL
871	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
14	FOOT	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL
182	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
7	EACH	HANDHOLE
1	EACH	DOUBLE HANDHOLE
22	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCEIVER - FIBER OPTIC
546	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
371	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1289	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
7247	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
1549	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
603	FOOT	ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED
204	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.
16	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE D
7	EACH	INDUCTIVE LOOP DETECTOR
643	FOOT	DETECTOR LOOP, TYPE L
2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
2	EACH	REMOVE EXISTING HANDHOLE
4	EACH	REMOVE EXISTING CONCRETE FOUNDATION
4	EACH	SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED
1	EACH	REMOVE EXISTING SERVICE INSTALLATION

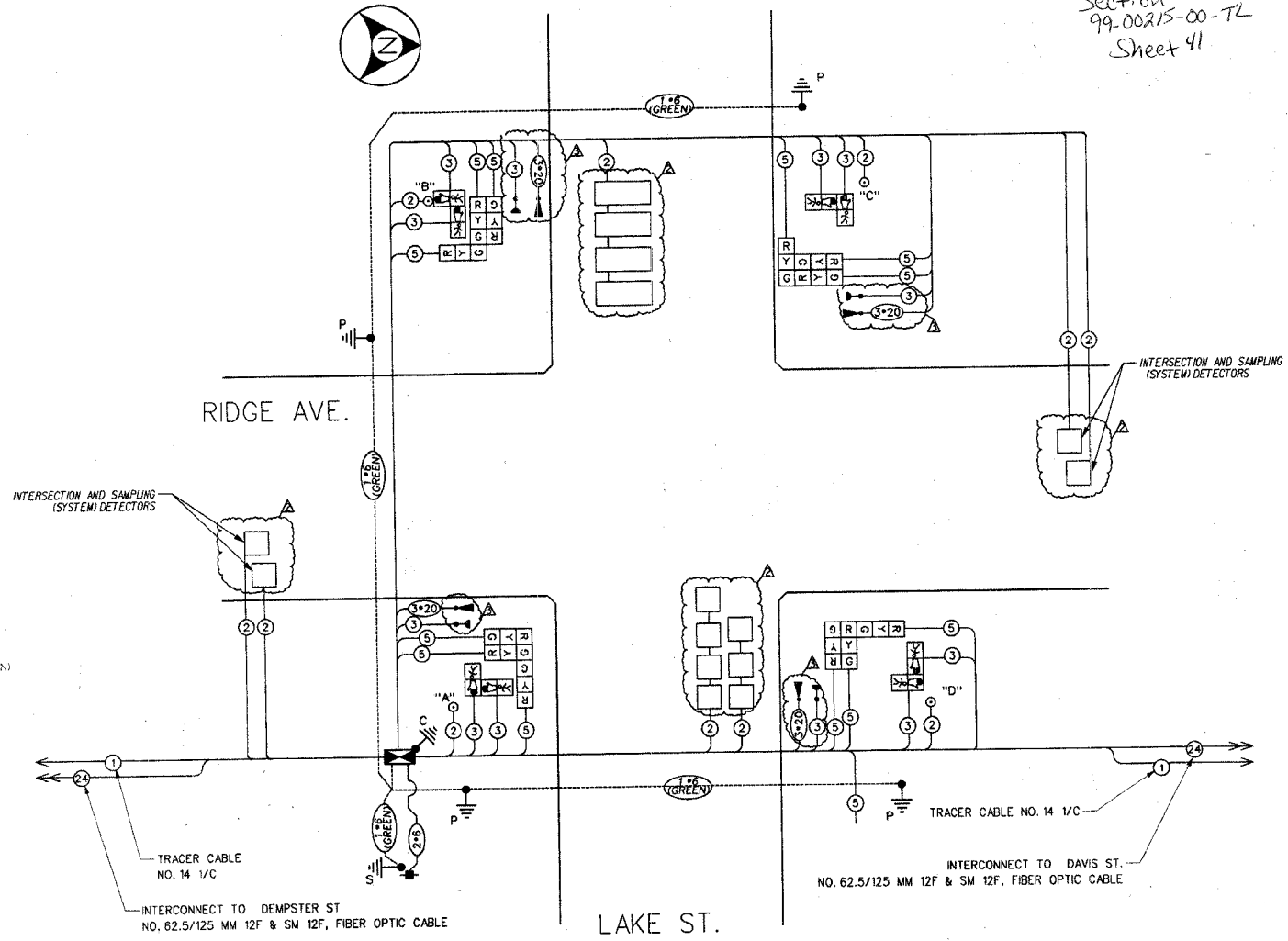
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
□	□	8"(200MM) TRAFFIC SIGNAL SECTION
□	□	12"(300MM) TRAFFIC SIGNAL SECTION
□	□	12"(300MM) PEDESTRIAN SIGNAL SECTION
□	□	12"(300MM) PEDESTRIAN SIGNAL SECTION
□	□	CONTROLLER CABINET
□	□	SERVICE INSTALLATION
□	□	VEHICLE DETECTOR, INDUCTION LOOP
□	□	MAGNETIC DETECTOR
□	□	EMERGENCY VEHICLE LIGHT DETECTOR
□	□	CONFIRMATION BEACON
□	□	PUSHBUTTON DETECTOR
②	②	② DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
□	□	SIGNAL FACE WITH BACKPLATE
□	□	*P INDICATES PROGRAMMED HEAD
H/C		GROUND ROD AT HANDHOLE OR CONTROLLER
P		GROUND ROD AT POST OR MAST ARM POLE
S		GROUND ROD AT ELECTRIC SERVICE INSTALLATION
E		GROUND ROD EXISTING TO BE REUSED
—	—	GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)
②	②	NO. 62.5/125 MM 12F & SM 12F, FIBER OPTIC CABLE
①	①	NO. 14 1C TRACER CABLE

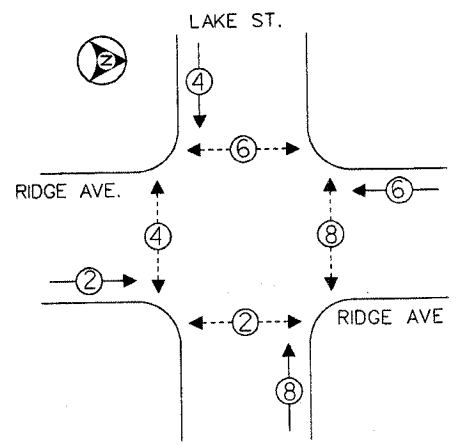
NOTE: ALL NEW GROUND RODS SHALL BE 3/4" X 10'-0" LONG COPPER CLAD. THE COST SHALL BE INCIDENTAL TO THE COST OF INSTALLATION.

PROPOSED CABLE PLAN



- NOTE:
- PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 - PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 - PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
 - PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

PROPOSED CONTROLLER SEQUENCE



LEGEND

- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE.

PHASE DESIGNATION DIAGRAM

RESTORATION OF WORK AREA. RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH, AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAYS SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOVED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOVED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'+L-2 =
E - M ARM POLE		SIGNAL POST	2	BRACKET MOUNTED	13
24"	10	CONTROLLER CAB.	1	PED. PUSHBUTTON	4
30"	15	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
		ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
		GROUND CABLE	1	POST MOUNTED	6

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	XINCAND	LED	XX OPERATIONS	
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	12	135	15	0.25	45
ARROW		135	12	0.10	
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	522

ENERGY COSTS - BILLED TO: CITY OF EVANSTON (ADDRESS)

ENERGY SUPPLY - CONTACT: MIKE LYNCH (847) 291-3329 PHONE: COMPANY: COMED

REVISIONS		
NO.	DATE	DESCRIPTION
Δ	06-08-06	MISCELLANEOUS REVISION
Δ	11-16-06	DETECTOR LOOPS AND SYSTEM DETECTOR LOOPS TO BE INSTALLED BY OTHERS AT A LATER DATE
Δ	11-15-06	EVP REVISIONS

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES

RIDGE AVE. @ LAKE ST. EVANSTON, ILLINOIS

PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↑

CITY OF EVANSTON
41_cp.dgn

T41

SCALE: NOT TO SCALE
DATE: APRIL 28, 2006

DRAWN BY: DWS
CHECKED BY: PAW

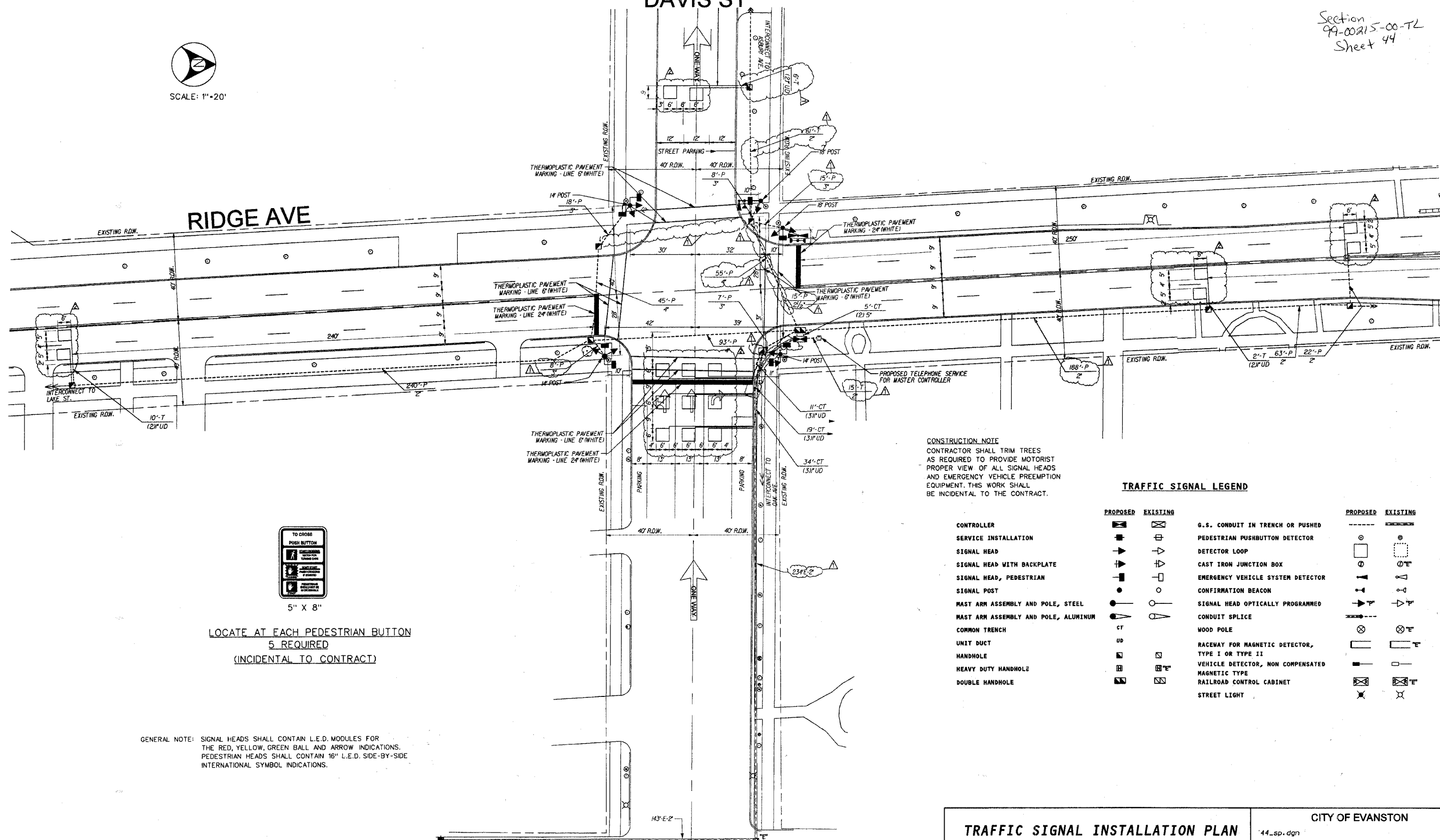
Section
99-00215-00-TL
Sheet 44



SCALE: 1"=20'

DAVIS ST

RIDGE AVE



CONSTRUCTION NOTE
CONTRACTOR SHALL TRIM TREES AS REQUIRED TO PROVIDE MOTORIST PROPER VIEW OF ALL SIGNAL HEADS AND EMERGENCY VEHICLE PREEMPTION EQUIPMENT. THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER			G.S. CONDUIT IN TRENCH OR PUSHED		
SERVICE INSTALLATION			PEDESTRIAN PUSHBUTTON DETECTOR		
SIGNAL HEAD			DETECTOR LOOP		
SIGNAL HEAD WITH BACKPLATE			CAST IRON JUNCTION BOX		
SIGNAL HEAD, PEDESTRIAN			EMERGENCY VEHICLE SYSTEM DETECTOR		
SIGNAL POST			CONFIRMATION BEACON		
MAST ARM ASSEMBLY AND POLE, STEEL			SIGNAL HEAD OPTICALLY PROGRAMMED		
MAST ARM ASSEMBLY AND POLE, ALUMINUM			CONDUIT SPLICE		
COMMON TRENCH			WOOD POLE		
UNIT DUCT			RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
HANDHOLE			VEHICLE DETECTOR, NON COMPENSATED		
HEAVY DUTY HANDHOLE			MAGNETIC TYPE		
DOUBLE HANDHOLE			RAILROAD CONTROL CABINET		
			STREET LIGHT		



5" X 8"

LOCATE AT EACH PEDESTRIAN BUTTON
5 REQUIRED
(INCIDENTAL TO CONTRACT)

GENERAL NOTE: SIGNAL HEADS SHALL CONTAIN L.E.D. MODULES FOR THE RED, YELLOW, GREEN BALL AND ARROW INDICATIONS. PEDESTRIAN HEADS SHALL CONTAIN 16" L.E.D. SIDE-BY-SIDE INTERNATIONAL SYMBOL INDICATIONS.

REVISIONS

NO.	DATE	DESCRIPTION
06-08-06		MISCELLANEOUS REVISION
11-15-06		DETECTOR LOOPS AND SYSTEM DETECTOR LOOPS TO BE INSTALLED BY OTHERS AT A LATER DATE
11-15-06		EVP REVISIONS

TRAFFIC SIGNAL INSTALLATION PLAN

RIDGE AVE. @ DAVIS ST.
EVANSTON, ILLINOIS

CITY OF EVANSTON

44_sp.dgn

T44

SCALE: 1"=20'
DATE: APRIL 28, 2006

DRAWN BY: DWS
CHECKED BY: PAW

Section
99-00215-00-TL
Sheet 45

SCHEDULE OF QUANTITIES

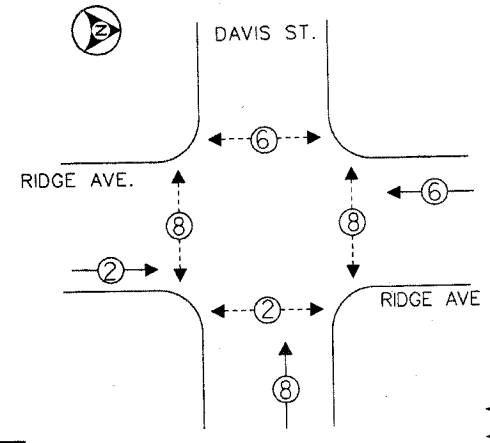
QTY	UNIT	ITEM DESCRIPTION
336	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 8"
94	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 24"
15	EACH	SERVICE INSTALLATION, POLE MOUNTED CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL
628	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
15	FOOT	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL
41	FOOT	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL
191	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
7	EACH	HANDHOLE
2	EACH	HEAVY-DUTY HANDHOLE
1	EACH	DOUBLE HANDHOLE
25	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL
1	EACH	MASTER CONTROLLER
1	EACH	TRANSCEIVER - FIBER OPTIC
728	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
508	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1300	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
1200	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
712	FOOT	ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED
382	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
402	FOOT	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.
2	EACH	CONCRETE FOUNDATION, TYPE A
20	FOOT	CONCRETE FOUNDATION, TYPE D
4	FOOT	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED
2	EACH	INDUCTIVE LOOP DETECTOR
5	EACH	DETECTOR LOOP, TYPE 1
546	FOOT	LIGHT DETECTOR
2	EACH	LIGHT DETECTOR AMPLIFIER
1	EACH	PEDESTRIAN PUSH-BUTTON
5	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	REMOVE EXISTING HANDHOLE
3	EACH	REMOVE EXISTING CONCRETE FOUNDATION
6	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED
3	EACH	REMOVE EXISTING SERVICE INSTALLATION

CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
□	□	8" (200MM) TRAFFIC SIGNAL SECTION
□	□	12" (300MM) TRAFFIC SIGNAL SECTION
□	□	12" (300MM) PEDESTRIAN SIGNAL SECTION
□	□	12" (300MM) PEDESTRIAN SIGNAL SECTION
□	□	CONTROLLER CABINET
□	□	SERVICE INSTALLATION
□	□	VEHICLE DETECTOR, INDUCTION LOOP
□	□	MAGNETIC DETECTOR
□	□	EMERGENCY VEHICLE LIGHT DETECTOR
□	□	CONFIRMATION BEACON
□	□	PUSHBUTTON DETECTOR
□	□	DENOTES NUMBER OF CONDUCTORS.
□	□	ALL CABLE NO. 14 EXCEPT AS INDICATED.
□	□	ALL LOOP DETECTOR CABLE TO BE SHIELDED.
□	□	SIGNAL FACE WITH BACKPLATE
□	□	H/C GROUND ROD AT HANDHOLE OR CONTROLLER
□	□	P GROUND ROD AT POST OR MAST ARM POLE
□	□	S GROUND ROD AT ELECTRIC SERVICE INSTALLATION
□	□	GROUND ROD EXISTING TO BE REUSED
□	□	GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)
□	□	NO. 62.5/125 MM 12F & 5M 12F, FIBER OPTIC CABLE
□	□	NO. 14 1C TRACER CABLE

NOTE: ALL NEW GROUND RODS SHALL BE 3/4" X 10'-0" LONG COPPER CLAD. THE COST SHALL BE INCIDENTAL TO THE COST OF INSTALLATION.

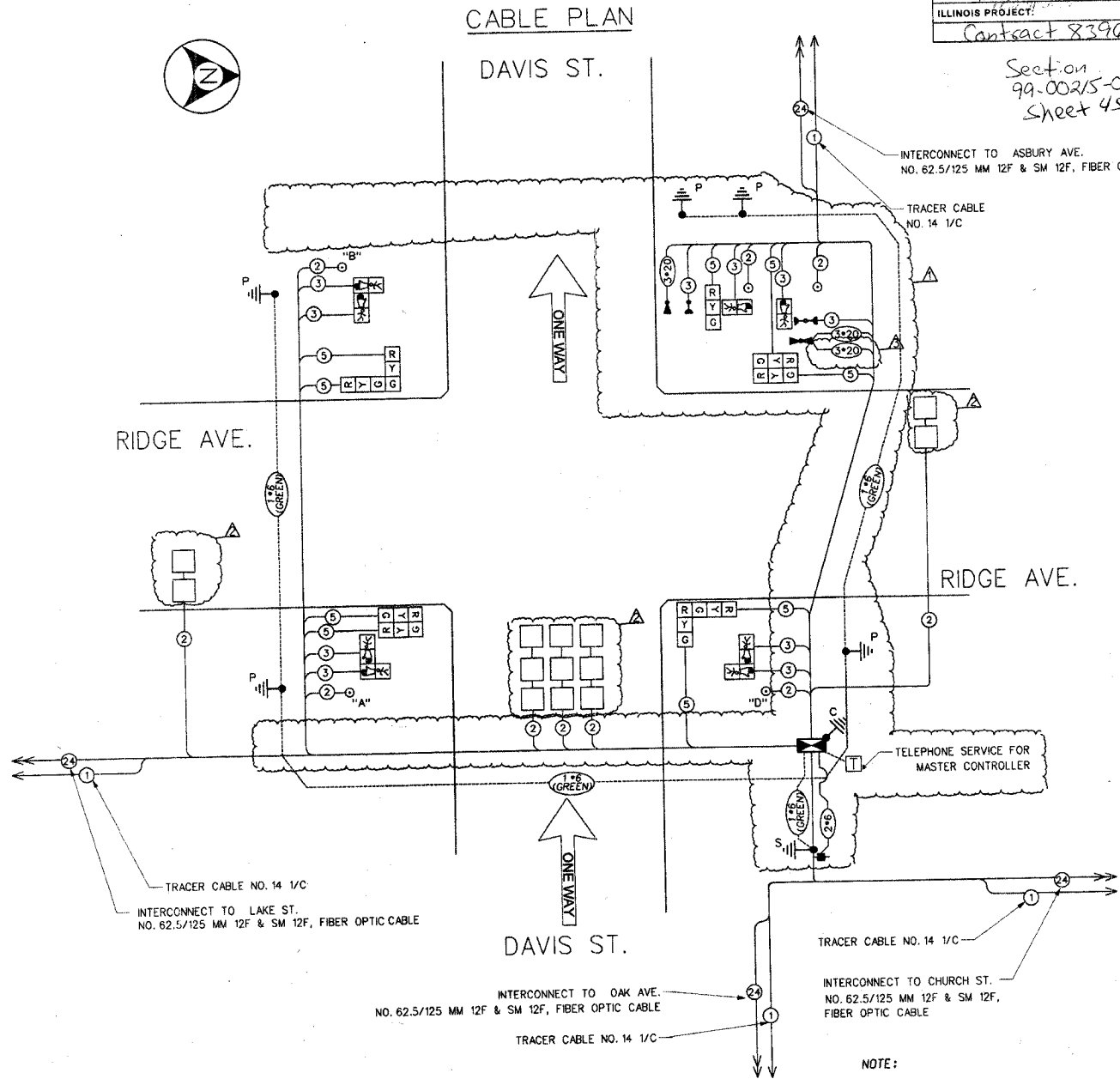
PROPOSED CONTROLLER SEQUENCE



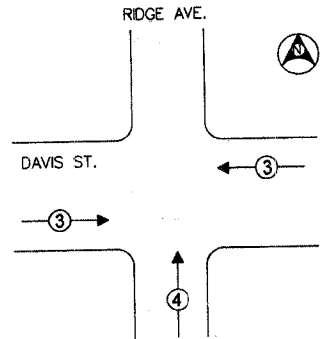
PHASE DESIGNATION DIAGRAM

LEGEND

- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- * NUMBER REFERS TO ASSOCIATED PHASE.



PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3 4
MOVEMENT	← → ↑

NOTE:
 • PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 8
 • PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 6 AND 8
 • PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 8 AND 2

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED XX OPERATIONS	WATTAGE	
SIGNAL (RED)	9	135	17	0.50	76.5
(YELLOW)	9	135	25	0.25	56.25
(GREEN)	9	135	15	0.25	33.75
ARROW	135	12	0.10		
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	200
ILLUM. SIGN				0.05	100
FLASHER				0.50	
TOTAL =					466.5

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20' ± L-2 =
E - M ARM POLE	2	SIGNAL POST	2	BRACKET MOUNTED	13
24"	10	CONTROLLER CAB.	1	PED. PUSHBUTTON	4
30"	15	FIBER OPTIC	13	ELECTRIC SERVICE	13.5
		ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
		GROUND CABLE	1	POST MOUNTED	6

REVISIONS		
NO.	DATE	DESCRIPTION
Δ	06-08-06	MISCELLANEOUS REVISION
Δ	11-15-06	DETECTOR LOOPS AND SYSTEM DETECTOR LOOPS TO BE INSTALLED BY OTHERS AT A LATER DATE
Δ	11-15-06	EVP REVISIONS

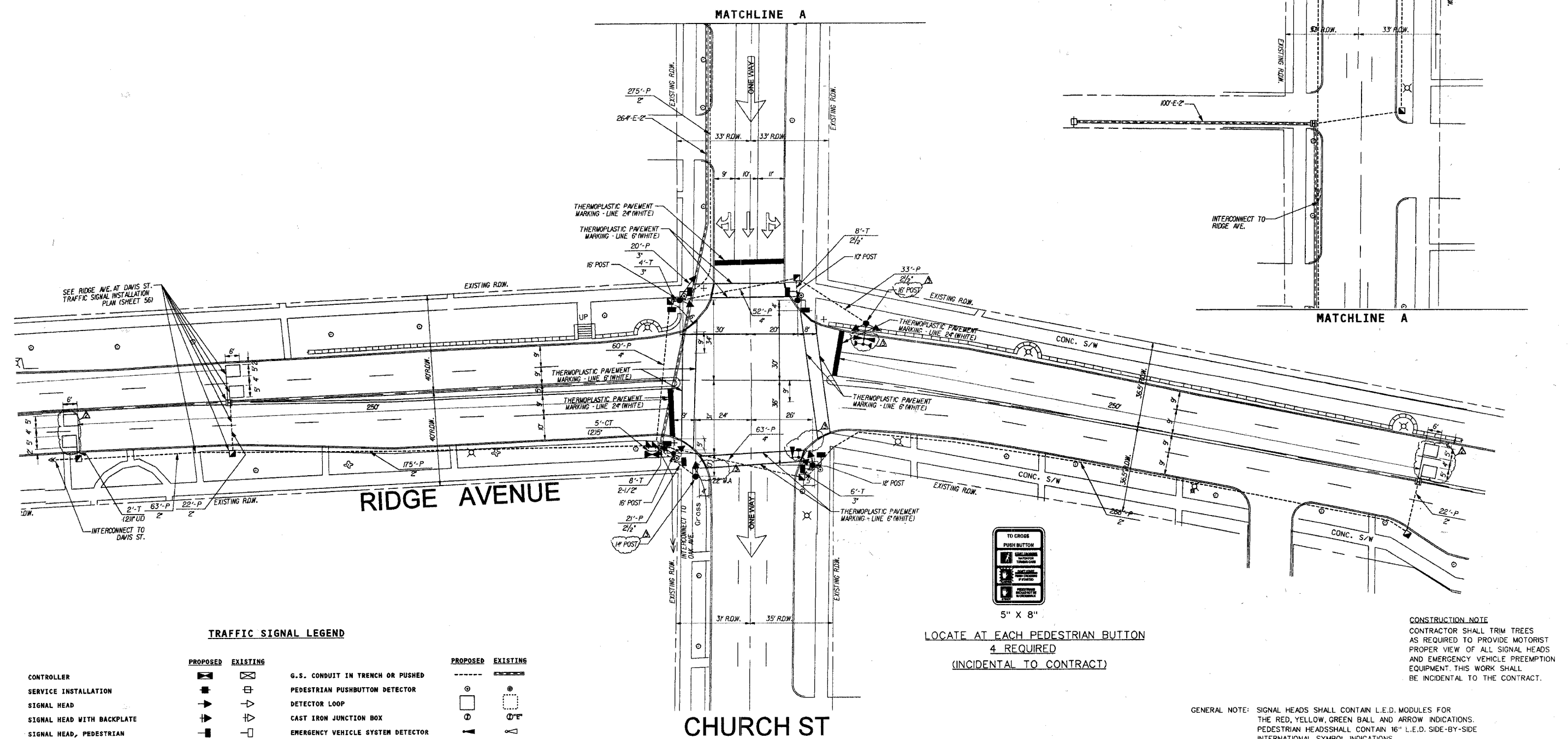
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES

RIDGE AVE. @ DAVIS ST.
EVANSTON, ILLINOIS

CITY OF EVANSTON
45_cp.dgn
T45
SCALE: NOT TO SCALE
DATE: APRIL 28, 2006
DRAWN BY: DWS
CHECKED BY: PAW

ENERGY COSTS - BILLED TO: CITY OF EVANSTON (ADDRESS)
 ENERGY SUPPLY - CONTACT: MIKE LYNCH (847) 291-3329
 COMPANY: COMED

Section
99-00215-00-TL
Sheet 48



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING		PROPOSED	EXISTING
CONTROLLER			G.S. CONDUIT IN TRENCH OR PUSHED		
SERVICE INSTALLATION			PEDESTRIAN PUSHBUTTON DETECTOR		
SIGNAL HEAD			DETECTOR LOOP		
SIGNAL HEAD WITH BACKPLATE			CAST IRON JUNCTION BOX		
SIGNAL HEAD, PEDESTRIAN			EMERGENCY VEHICLE SYSTEM DETECTOR		
SIGNAL POST			CONFIRMATION BEACON		
MAST ARM ASSEMBLY AND POLE, STEEL			SIGNAL HEAD OPTICALLY PROGRAMMED		
MAST ARM ASSEMBLY AND POLE, ALUMINUM			CONDUIT SPLICE		
COMMON TRENCH	CT		WOOD POLE		
UNIT DUCT	UD		RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		
HANDHOLE			VEHICLE DETECTOR, NON COMPENSATED		
HEAVY DUTY HANDHOLE			MAGNETIC TYPE		
DOUBLE HANDHOLE			RAILROAD CONTROL CABINET		
			STREET LIGHT		

CONSTRUCTION NOTE
CONTRACTOR SHALL TRIM TREES AS REQUIRED TO PROVIDE MOTORIST PROPER VIEW OF ALL SIGNAL HEADS AND EMERGENCY VEHICLE PREEMPTION EQUIPMENT. THIS WORK SHALL BE INCIDENTAL TO THE CONTRACT.

GENERAL NOTE: SIGNAL HEADS SHALL CONTAIN L.E.D. MODULES FOR THE RED, YELLOW, GREEN BALL AND ARROW INDICATIONS. PEDESTRIAN HEADS SHALL CONTAIN 16" L.E.D. SIDE-BY-SIDE INTERNATIONAL SYMBOL INDICATIONS.

LOCATE AT EACH PEDESTRIAN BUTTON
4 REQUIRED
(INCIDENTAL TO CONTRACT)

TRAFFIC SIGNAL INSTALLATION PLAN

RIDGE AVE. @ CHURCH ST.
EVANSTON, ILLINOIS

CITY OF EVANSTON
48-sp.dgn

T48

SCALE: 1"=20'
DATE: APRIL 28, 2006

DRAWN BY: DWS
CHECKED BY: PAW

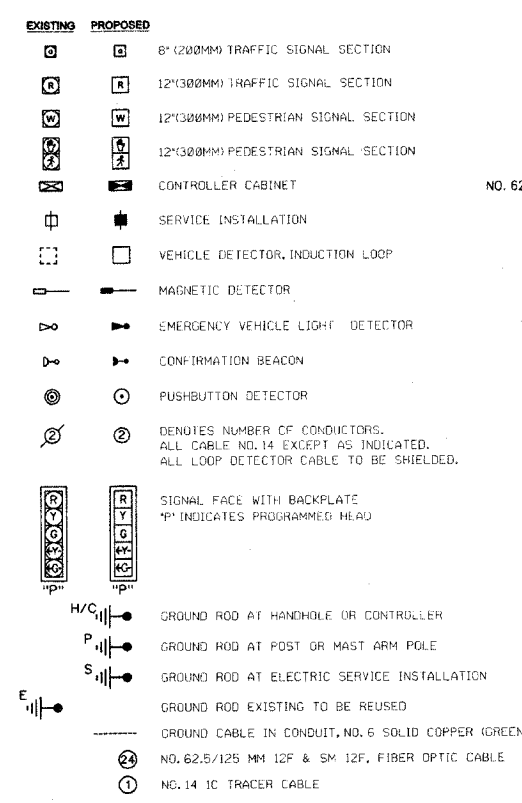
REVISIONS		
NO.	DATE	DESCRIPTION
1	06-08-06	MISCELLANEOUS REVISION
2	11-15-06	DETECTOR LOOPS AND SYSTEM DETECTOR LOOPS TO BE INSTALLED BY OTHERS AT A LATER DATE
3	11-15-06	EVP REVISIONS

Section 99-00215-00-TL
Sheet 49

SCHEDULE OF QUANTITIES

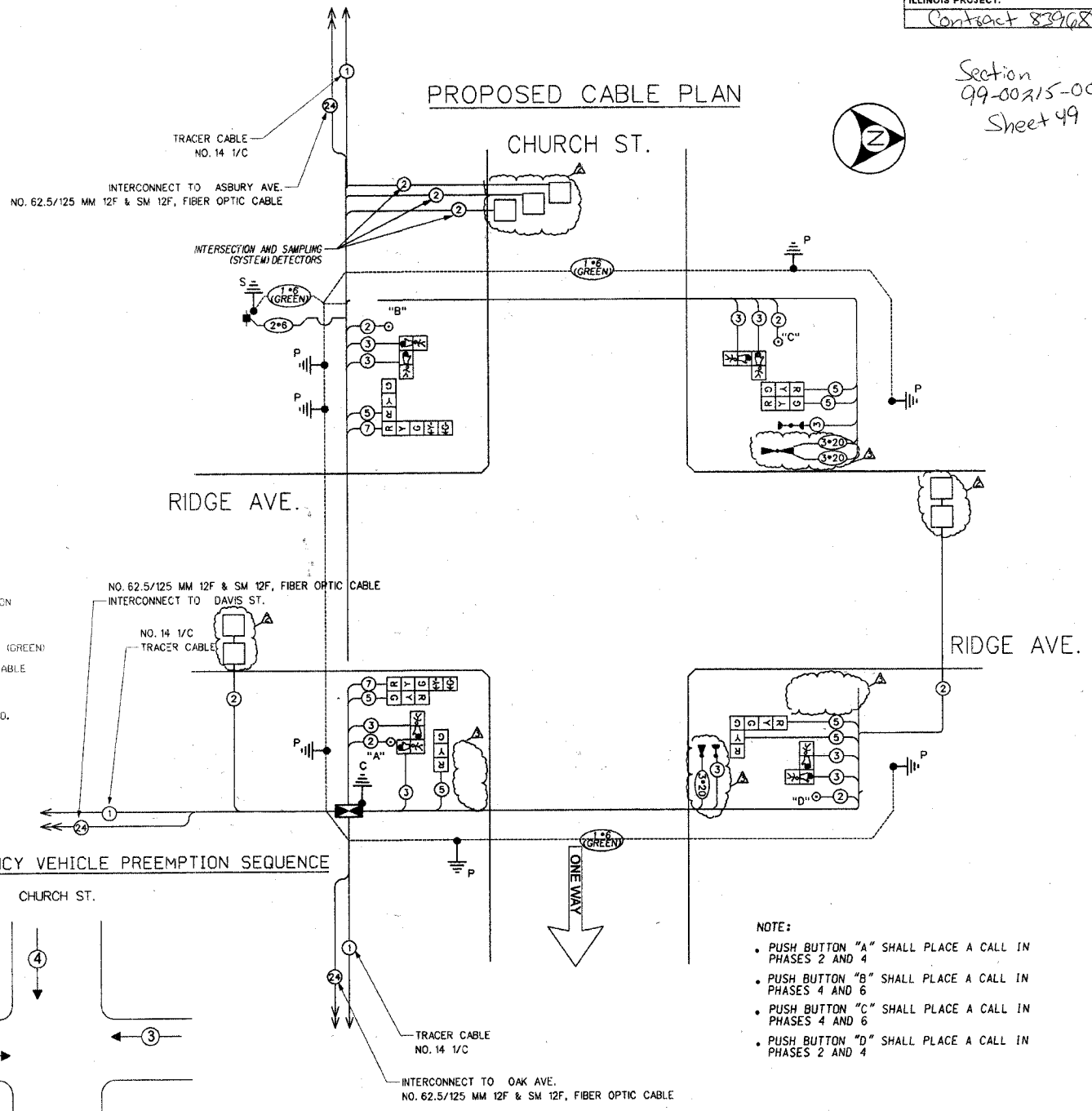
QTY	UNIT	ITEM DESCRIPTION
344	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 6"
70	FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 24"
1	EACH	SERVICE INSTALLATION, POLE MOUNTED
8	FOOT	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL
1104	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
62	FOOT	CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL
175	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
5	EACH	HANDHOLE
2	EACH	HEAVY-DUTY HANDHOLE
1	EACH	DOUBLE HANDHOLE
28	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCIVER - FIBER OPTIC
770	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
421	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1216	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
683	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
163	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
1796	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
529	FOOT	ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED
385	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
3	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.
24	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE D
1	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
5	EACH	INDUCTIVE LOOP DETECTOR
180	FOOT	DETECTOR LOOP, TYPE 1
2	EACH	LIGHT DETECTOR
1	EACH	LIGHT DETECTOR AMPLIFIER
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
4	EACH	REMOVE EXISTING HANDHOLE
5	EACH	REMOVE EXISTING CONCRETE FOUNDATION
2	EACH	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED
1	EACH	REMOVE EXISTING SERVICE INSTALLATION

CABLE PLAN LEGEND



NOTE: ALL NEW GROUND RODS SHALL BE 3/4" X 18'-0" LONG COPPER CLAD. THE COST SHALL BE INCIDENTAL TO THE COST OF INSTALLATION.

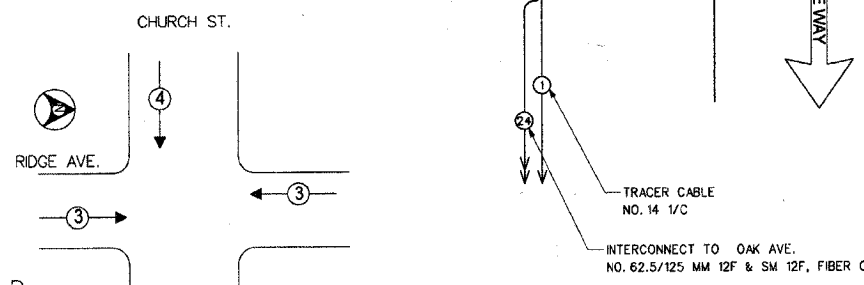
PROPOSED CABLE PLAN



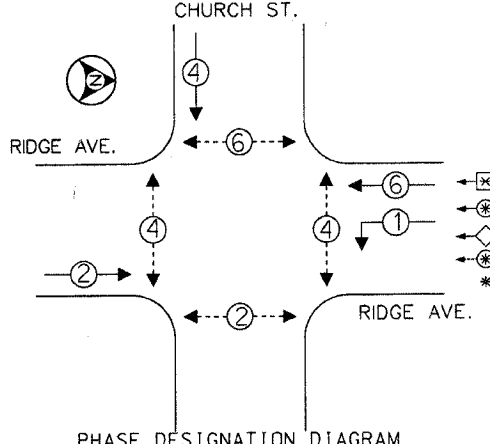
NOTE:

- PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
- PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
- PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 4 AND 6
- PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 4

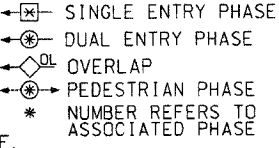
PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED CONTROLLER SEQUENCE



LEGEND



PHASE DESIGNATION DIAGRAM

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'+L-2 =
E - M ARM POLE	24"	SIGNAL POST	2	BRACKET MOUNTED	13
	30"	CONTROLLER CAB.	1	PED. PUSHBUTTON	4
		FIBER OPTIC	13	ELECTRIC SERVICE	13.5
		ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
		GROUND CABLE	1	POST MOUNTED	6

PROPOSED EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	3 4
MOVEMENT	← → ↑ ↓

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES

RIDGE AVE. @ CHURCH ST.
EVANSTON, ILLINOIS

CITY OF EVANSTON
49_cp.dgn
T49
SCALE: NOT TO SCALE
DATE: APRIL 28, 2006
DRAWN BY: DWS
CHECKED BY: PAW

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	INCAND	LED	% OPERATIONS	
SIGNAL (RED)	9	135	17	0.50	76.5
(YELLOW)	9	135	25	0.25	56.25
(GREEN)	9	135	15	0.25	33.75
ARROW	4	135	12	0.10	4.8
PED. SIGNAL	8	90	25	1.00	200
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
TOTAL =					471.3

ENERGY COSTS - BILLED TO: CITY OF EVANSTON (ADDRESS)

ENERGY SUPPLY - CONTACT: MIKE LYNCH (847) 291-3329 COMPANY: COMED

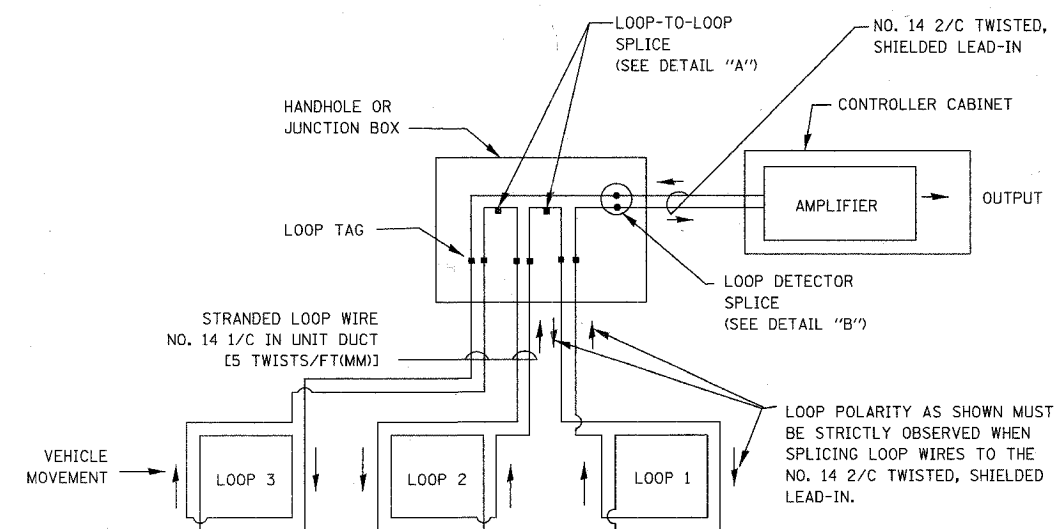
PREPARED BY METRO TRANSPORTATION GROUP, INC.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-0024-00-24	COOK		136
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Contract 83968

LOOP DETECTOR NOTES

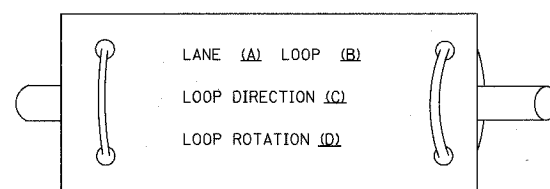
1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.



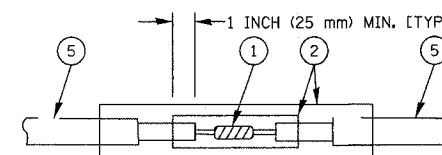
DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

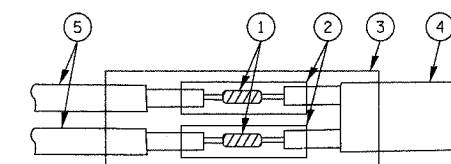
LOOP LEAD-IN CABLE TAG



- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- 2 WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT ONE
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: VERT. NONE
HORIZ. NONE
DATE 1-01-02

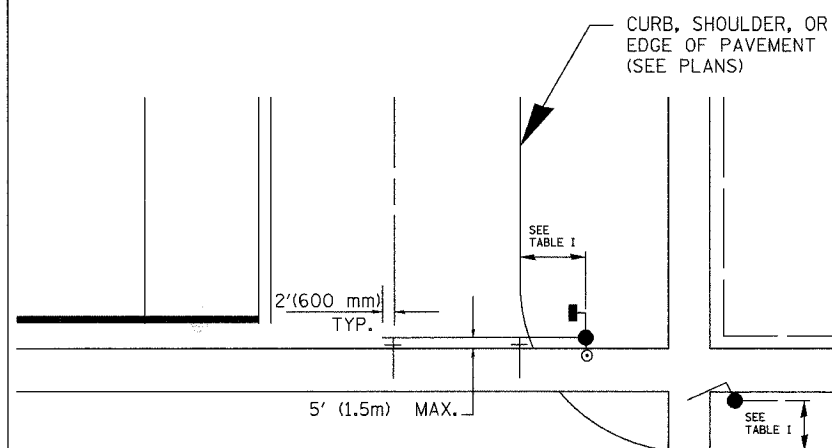
DRAWN BY: RWP
DESIGNED BY: DAZ
CHECKED BY: DAZ
SHEET 1 OF 4

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	106-00241-00-44	COOK		137
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

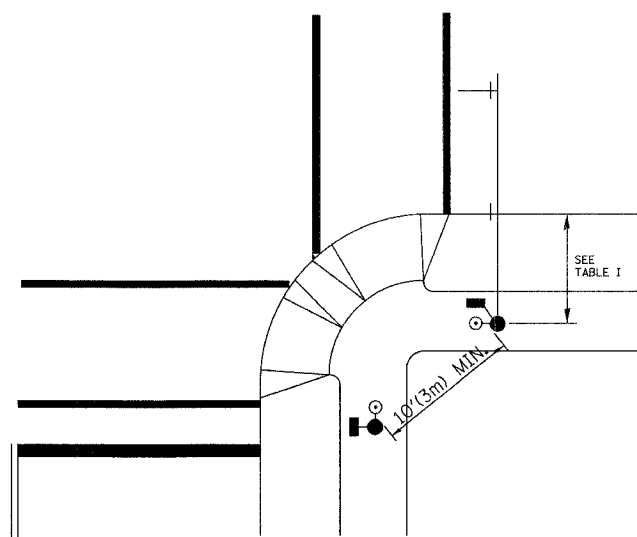
Contract 83968

TRAFFIC SIGNAL MAST ARM AND POST

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



PEDESTRIAN SIGNAL PUSHBUTTON



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

NOTES:

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.
 AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.
 PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:
 A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
 B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
 C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
 D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
 E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK.
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

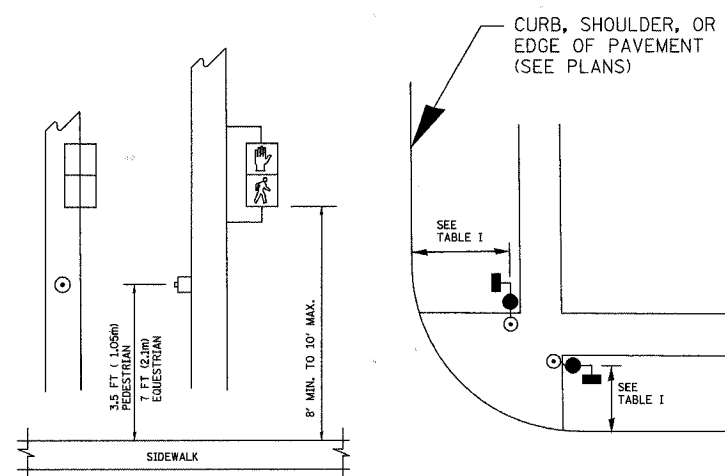


TABLE I

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

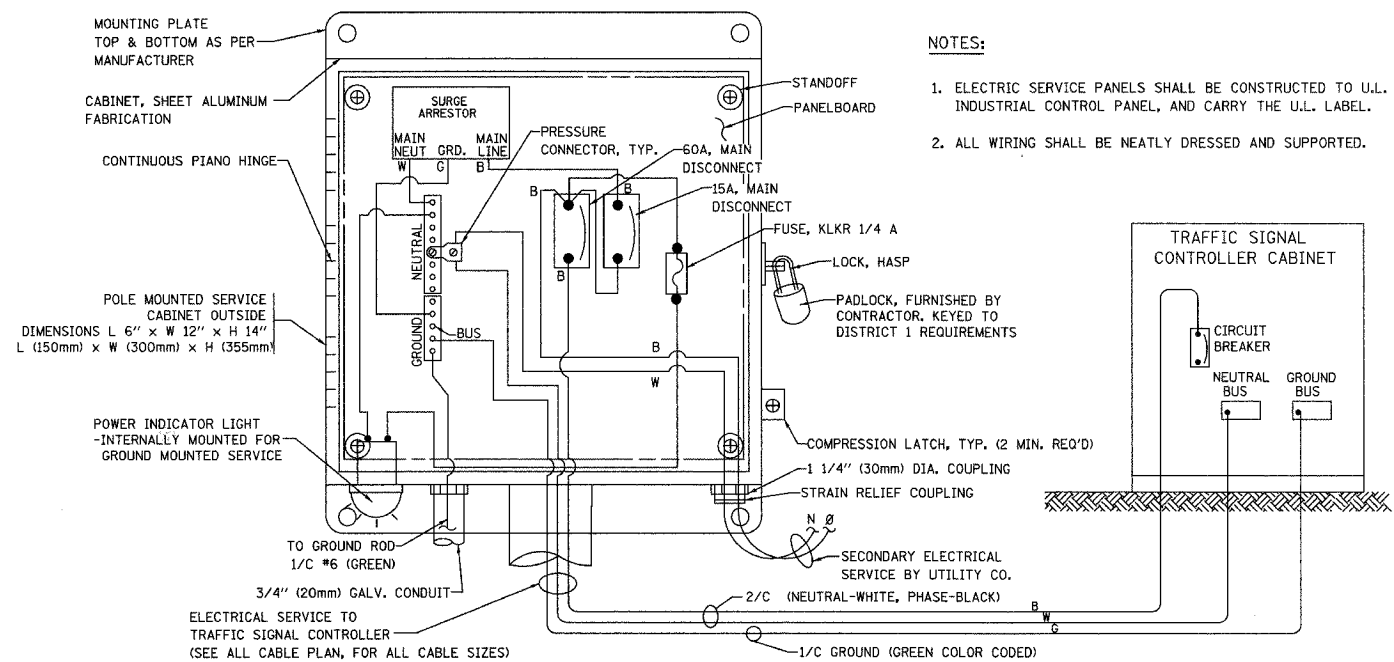
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT 1
 STANDARD TRAFFIC SIGNAL
 DESIGN DETAILS

SCALE: VERT. NONE
 HORIZ. NONE
 DATE 1-01-02

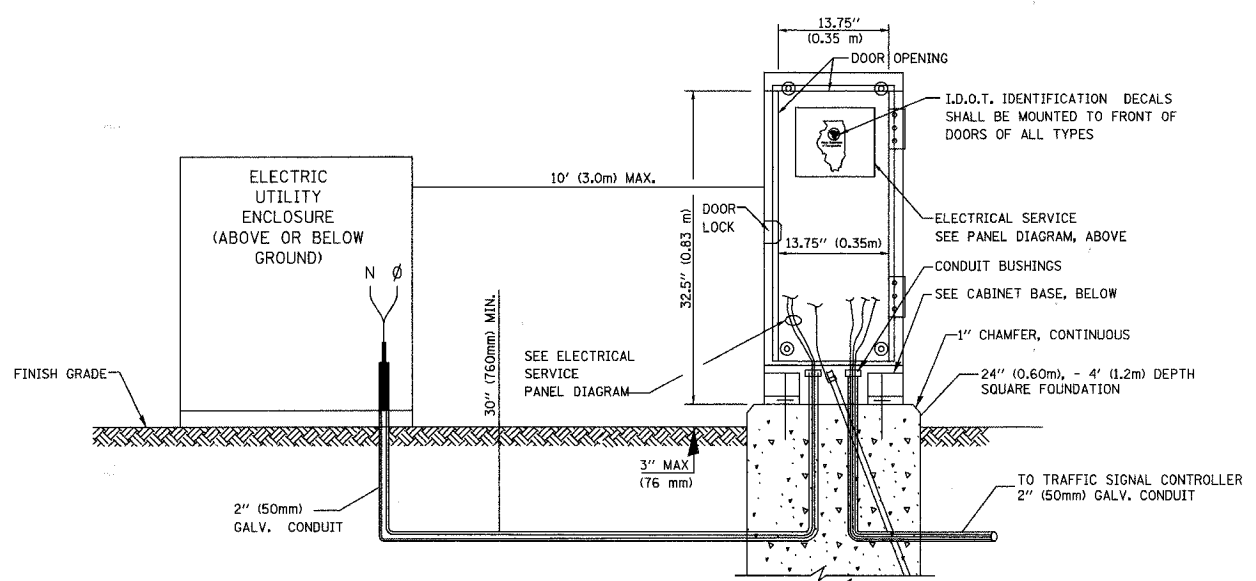
DRAWN BY: RWP
 DESIGNED BY: DAD
 CHECKED BY: DAZ
 SHEET 2 OF 4

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	06-00241-00-24	COOK		138
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT	Contract 83968	

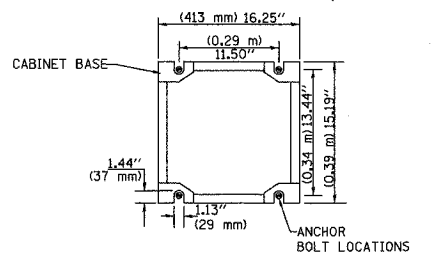


ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

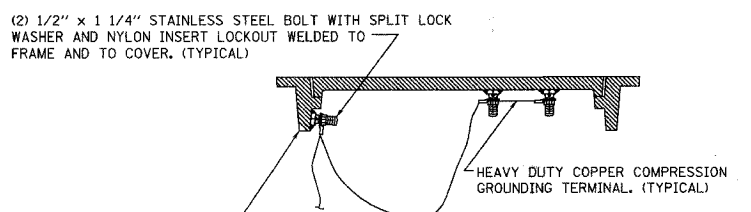
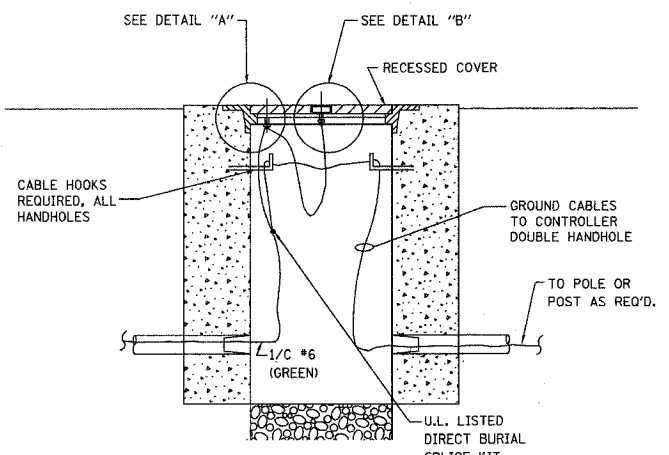
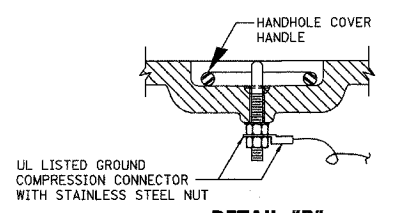
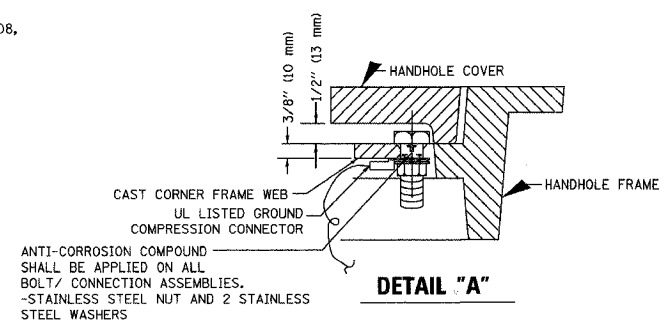
SERVICE INSTALLATION POLE MOUNT (SHOWN)
(NOT TO SCALE)



SERVICE INSTALLATION GROUND MOUNT
(NOT TO SCALE)



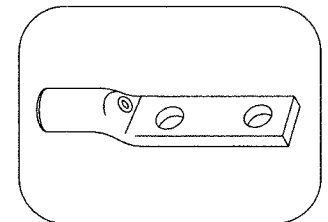
CABINET - BASE BOLT PATTERN
(NOT TO SCALE)



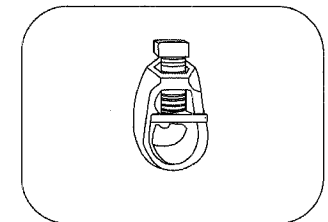
NOTES:

GROUNDING SYSTEM

- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
- THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
- ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
- THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



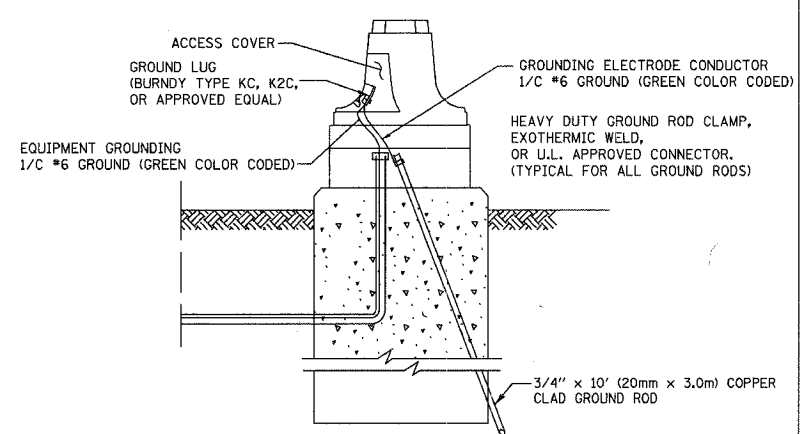
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

NOTES:

- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



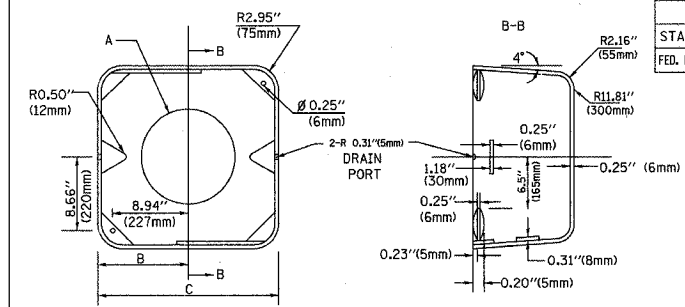
MAST ARM POLE / POST-GROUNDING DETAIL
(NOT TO SCALE)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DISTRICT 1
STANDARD TRAFFIC SIGNAL
DESIGN DETAILS

SCALE: VERT. NONE
HORIZ. NONE
DATE 1-01-02
DRAWN BY: RWP
DESIGNED BY: DAD
CHECKED BY: DAZ
SHEET 3 OF 4

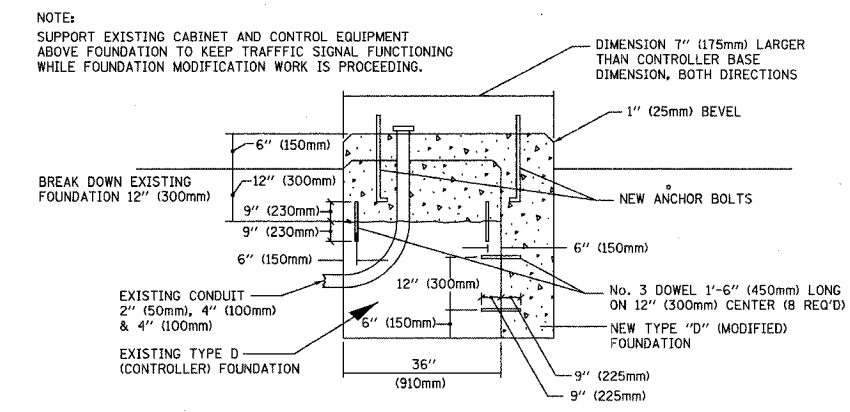
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
06-00241-004	Cook		139	
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
Contract 87968				



TYPE	A	B	C	HEIGHT	WEIGHT
I	Ø 10.125 (257mm)	9.5 (241mm)	19 (483mm)	12 (300mm)	24kg
II	Ø 11.125 (283mm)	10.75 (273mm)	21.5 (546mm)	12 (300mm)	26kg

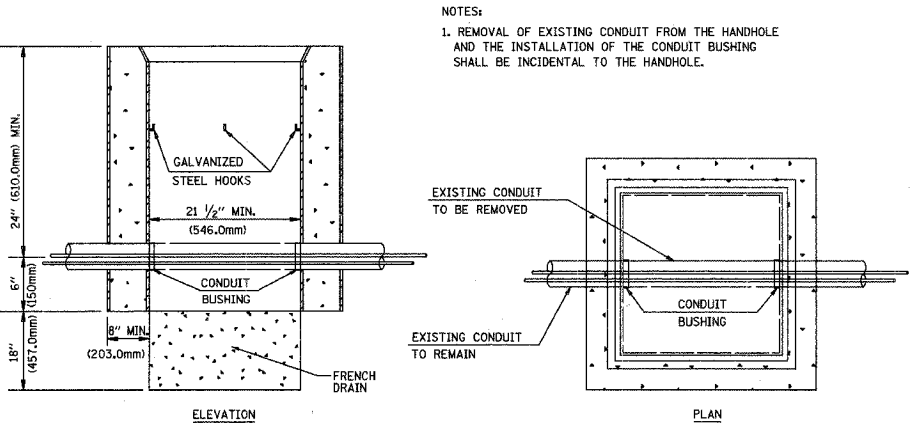
SHROUD DETAIL

MATERIAL:
 - ASTM A48 CLASS 30 GREY IRON
 - ASTM A123 HOT DIPPED GALVANIZED



MODIFY EXISTING TYPE "D" FOUNDATION

(NOT TO SCALE)

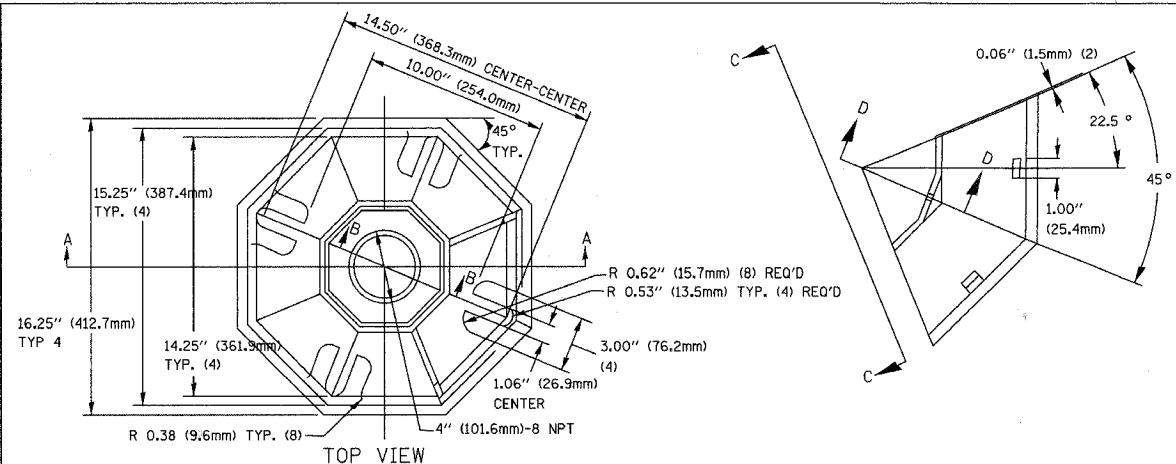


DETAIL
HANDHOLE TO INTERCEPT EXISTING CONDUIT
N.T.S.

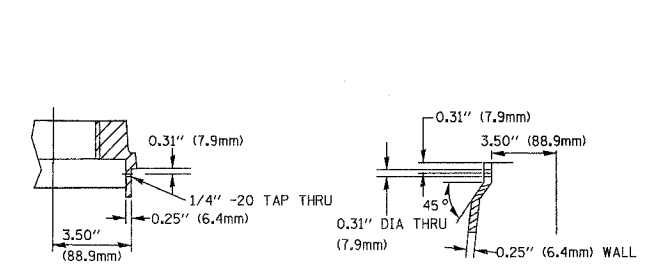
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DISTRICT 1
 STANDARD TRAFFIC SIGNAL
 DESIGN DETAILS

SCALE: VERT. NONE
 HORIZ. 1-01-02
 DATE 1-01-02
 DRAWN BY: RWP
 DESIGNED BY: DAD
 CHECKED BY: DAZ
 SHEET 4 OF 4

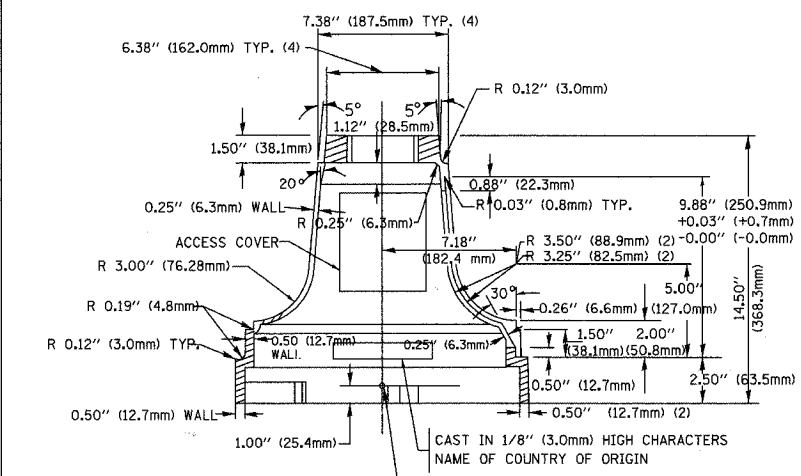


TOP VIEW

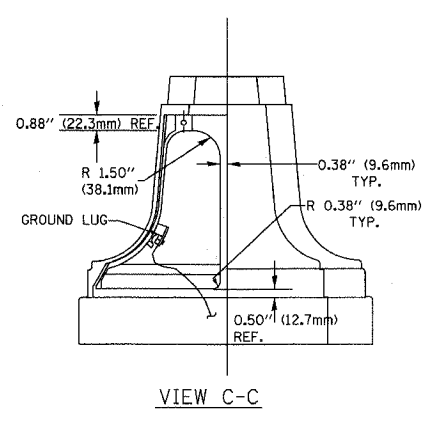


SECTION B-B

SECTION D-D

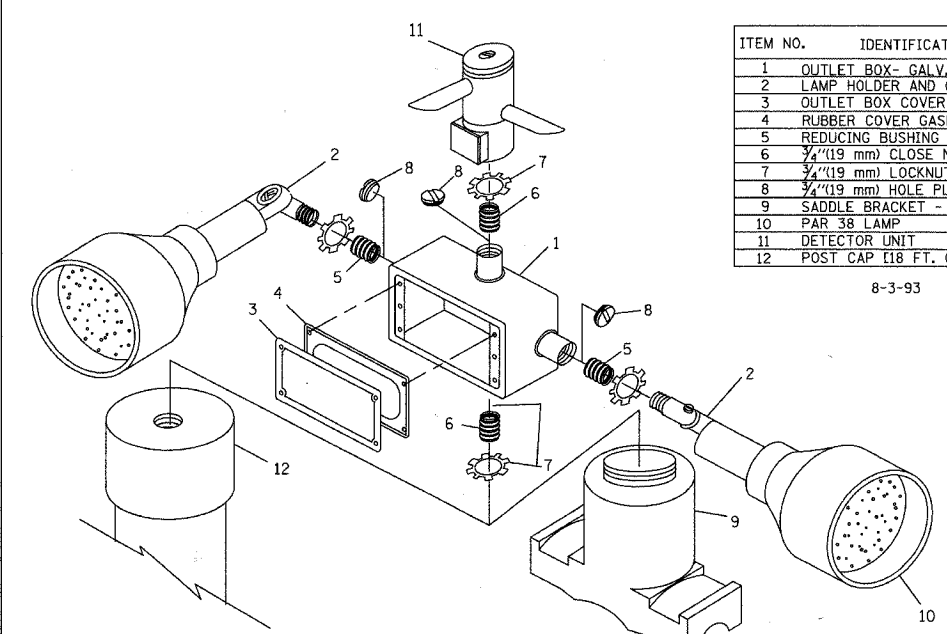


SECTION A-A



VIEW C-C

TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A

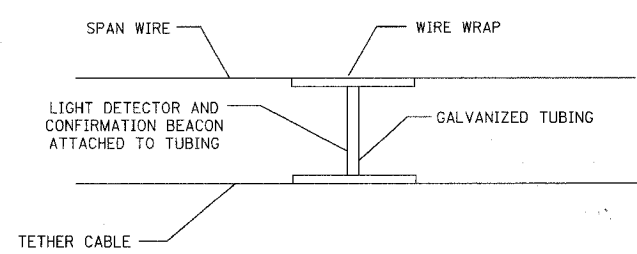


ITEM NO.	IDENTIFICATION
1	OUTLET BOX - GALV., 21 CU. IN. (0.000344 CU.-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4 (19 mm) CLOSE NIPPLE
7	3/4 (19 mm) LOCKNUT
8	3/4 (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	PAR 38 LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

8-3-93

POST CAP MOUNT
 MAST ARM MOUNT
 EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

- NOTES:
- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
 - ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
 ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
 ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
 - WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4 (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



LIGHT DETECTOR AND
 CONFIRMATION BEACON MOUNTING
 FOR TEMPORARY TRAFFIC SIGNALS
 (NOT TO SCALE)