

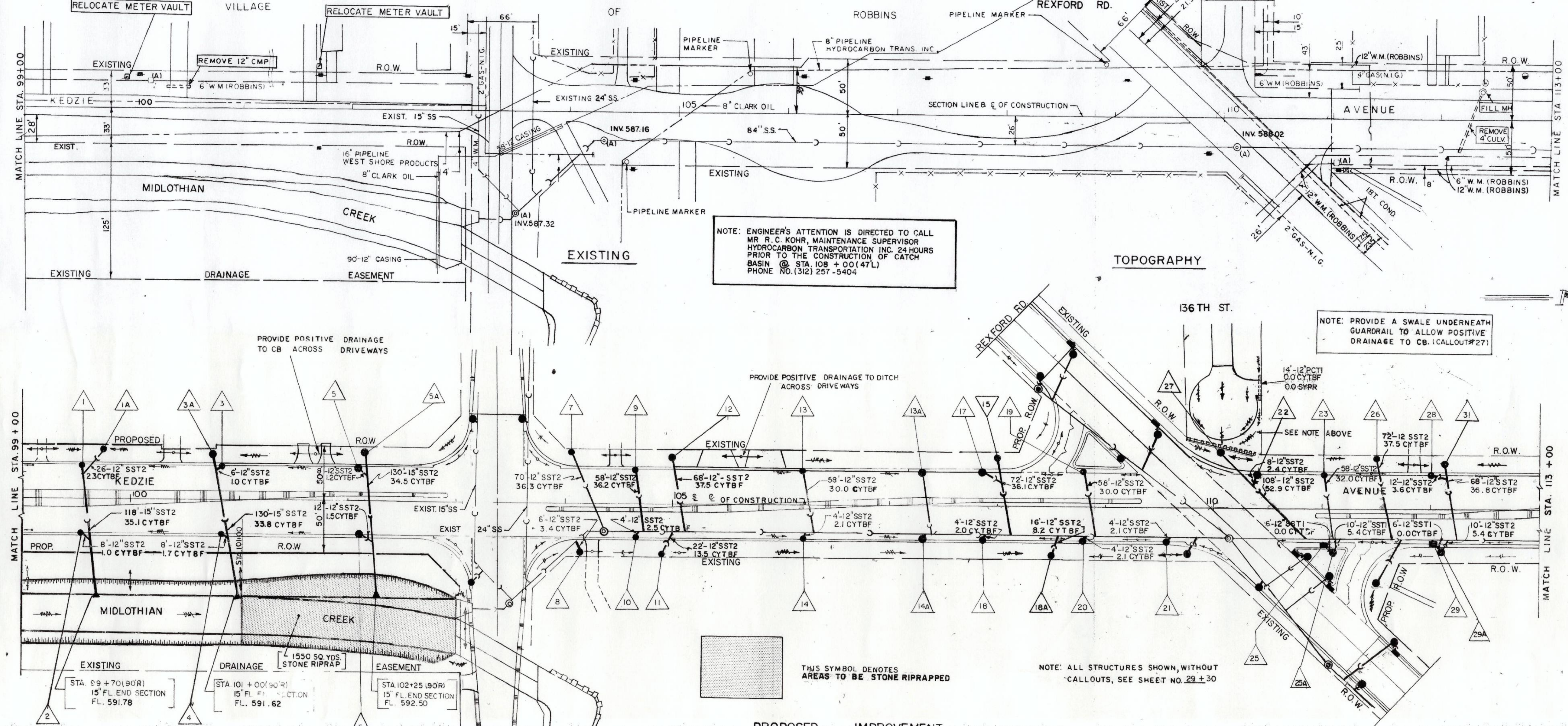
P:\13278ch\Drawings\Contracts\14-253-3F\Reference\Sheets\14-253-BF-R-013.dwg 1/10/2024 11:32 AM

AS DESIGNED

BREMEN TOWNSHIP 137TH STREET

| County | Fiscal Year | Sheet No. | Total Sheets |
|--------|-------------|-----------|--------------|
| W 46 | 198 T | 27 | 104 |

Section: 82-W4612-02-RP



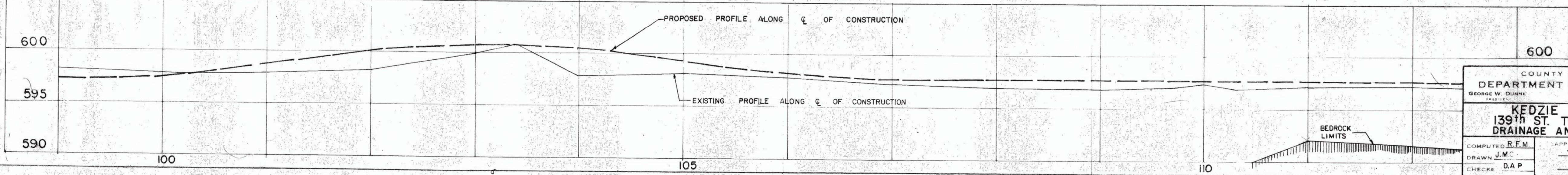
NOTE: ENGINEER'S ATTENTION IS DIRECTED TO CALL MR. R. C. KOHR, MAINTENANCE SUPERVISOR HYDROCARBON TRANSPORTATION INC. 24 HOURS PRIOR TO THE CONSTRUCTION OF CATCH BASIN @ STA. 108 + 00 (47L) PHONE NO. (312) 257-5404

NOTE: PROVIDE A SWALE UNDERNEATH GUARDRAIL TO ALLOW POSITIVE DRAINAGE TO CB. (CALLOUT#27)

THIS SYMBOL DENOTES AREAS TO BE STONE RIPRAPPED

NOTE: ALL STRUCTURES SHOWN, WITHOUT CALLOUTS, SEE SHEET NO. 29 ± 30

| PROPOSED | | IMPROVEMENT | |
|----------|---|-------------|--|
| 1 | STA. 99+55 A2-48-24 EL. 596.90 FL. 593.00 | 17 | STA. 107+85 A2-48-24 EL. 597.12 FL. 591.60 |
| 2 | STA. 99+55 A2-48-24 EL. 596.90 FL. 593.00 | 18 | STA. 107+85 A2-48-24 EL. 597.12 FL. 591.60 |
| 3 | STA. 100+85 A2-48-24 EL. 598.24 FL. 593.50 | 19 | STA. 108+80 A2-48-24 EL. 597.17 FL. 591.70 |
| 4 | STA. 100+85 A2-48-24 EL. 598.24 FL. 593.00 | 20 | STA. 108+80 A2-48-24 EL. 597.17 FL. 591.70 |
| 5 | STA. 102+10 A2-48-24 EL. 599.90 FL. 594.4 | 21 | STA. 109+55 A2-48-24 EL. 597.19 FL. 591.70 |
| 6 | STA. 102+55 A2-48-24 EL. 599.9 FL. 594.4 | 22 | STA. 110+40 A2-48-24 EL. 597.17 FL. 591.70 |
| 7 | STA. 104+05(47L) A2-48-8 EL. 598.40 FL. 592.90 | 23 | STA. 111+00 A2-48-24 EL. 597.10 FL. 591.60 |
| 8 | STA. 104+15(47R) A2-48-8 EL. 597.20 FL. 591.70 | 24 | STA. 111+00(47R) A2-48-1C EL. 597.50 FL. 592.00 |
| 9 | STA. 104+65 A2-48-24 EL. 599.42 FL. 593.90 | 25 | STA. 111+00 A-24 EL. 597.10 FL. 591.60 |
| 10 | STA. 104+65 A2-48-24 EL. 599.42 FL. 593.90 | 26 | STA. 111+50(47L) C-8 EL. 594.90 FL. 589.40 |
| 11 | STA. 104+90(47R) A2-48-8 EL. 597.50 FL. 591.30 | 27 | STA. 110+10 (53' L) A2-48-8 EL. 594.90 FL. 589.60 |
| 12 | STA. 105+00(44) A2-48-8 EL. 597.67 FL. 592.00 | 28 | STA. 112+00 A2-48-24 EL. 597.03 FL. 591.50 |
| 13 | STA. 106+20 A2-48-24 EL. 597.67 FL. 592.20 | 29 | STA. 112+00 A-24 EL. 597.03 FL. 591.50 |
| 14 | STA. 106+20 A2-48-24 EL. 597.67 FL. 592.20 | 30 | STA. 112+05(14R) A2-48-1C EL. 597.50 FL. 592.00 |
| 15 | STA. 108+00(47L) A2-48-8 EL. 595.80 FL. 590.30 | 31 | STA. 112+12(46L) C-8 EL. 595.90 FL. 590.40 |
| 13A | STA. 107+30 A2-48-24 EL. 597.29 FL. 591.8 | 3A | STA. 102+20(47L) A2-48-8 EL. 595.90 FL. 593.50 |
| 14A | STA. 108+50(46R) A2-48-8 EL. 596.20 FL. 590.70 | 1A | STA. 99+75(47L) A2-48-8 EL. 595.90 FL. 593.20 |
| 14A | STA. 107+30 A2-48-24 EL. 597.29 FL. 591.8 | 3A | STA. 100+75(43L) A2-48-8 EL. 596.30 FL. 593.00 |
| 23A | STA. 111+10(39R) C-1C EL. 597.5 FL. 592.0 | 29A | STA. 112+10(39R) C-1C EL. 596.0 FL. 590.5 |



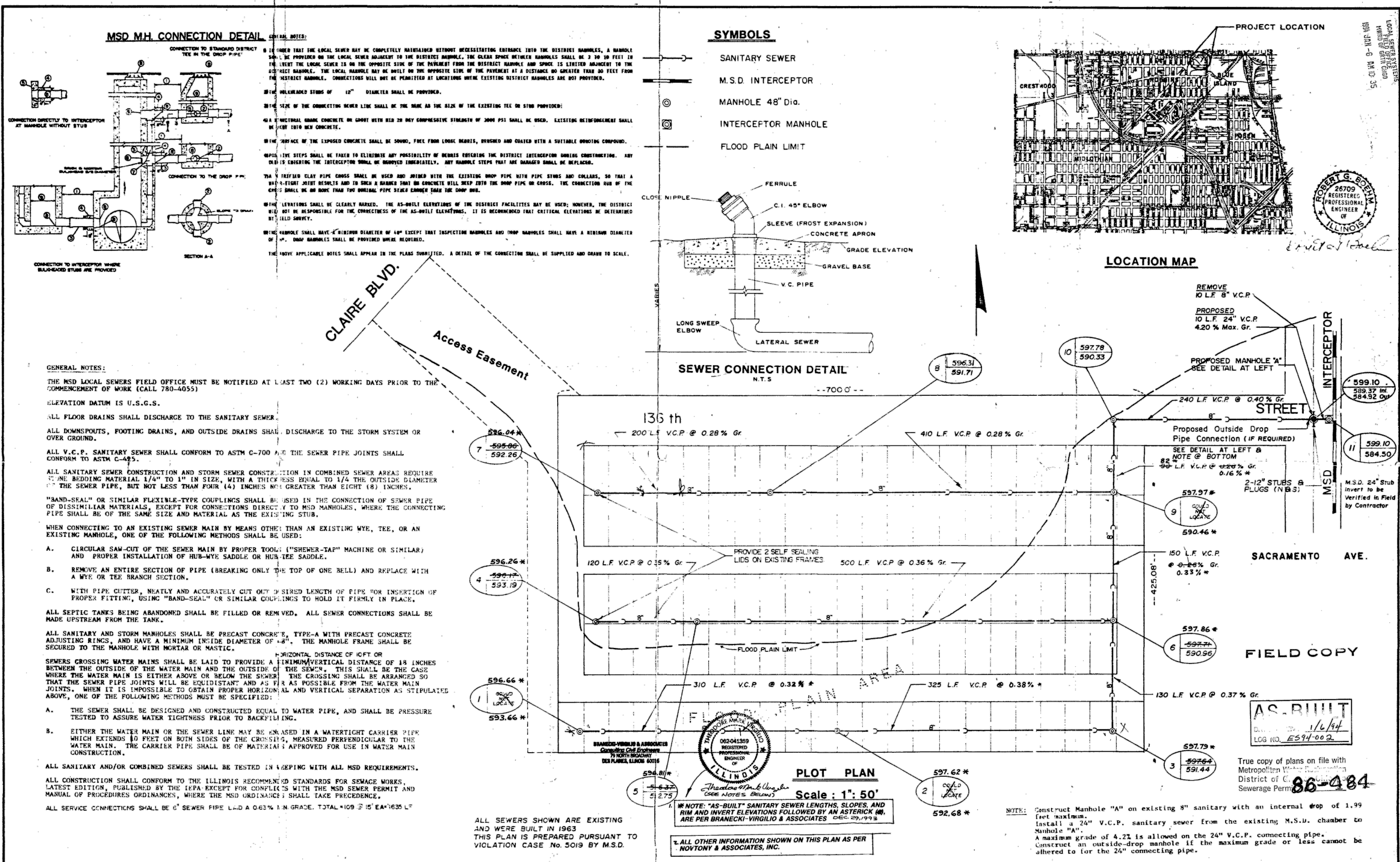
COUNTY OF COOK
DEPARTMENT OF HIGHWAYS
GEORGE W. DUNNE
KEDZIE AVENUE
139th ST. TO 135th ST.
DRAINAGE AND UTILITIES
COMPUTED R.F.M.
DRAWN J.M.C.
CHECKED D.A.P.
APPROVED Nov 3 1997
Paul J. [Signature]

CONTRACT 14-253-5F
FLOOD CONTROL PROJECT ON
MIDLOTHIAN CREEK IN ROBBIENS, CSA
LITTLE CALUMET RIVER WATERSHED
KEDZIE AVE 139TH ST TO 135TH ST
SHEET 27

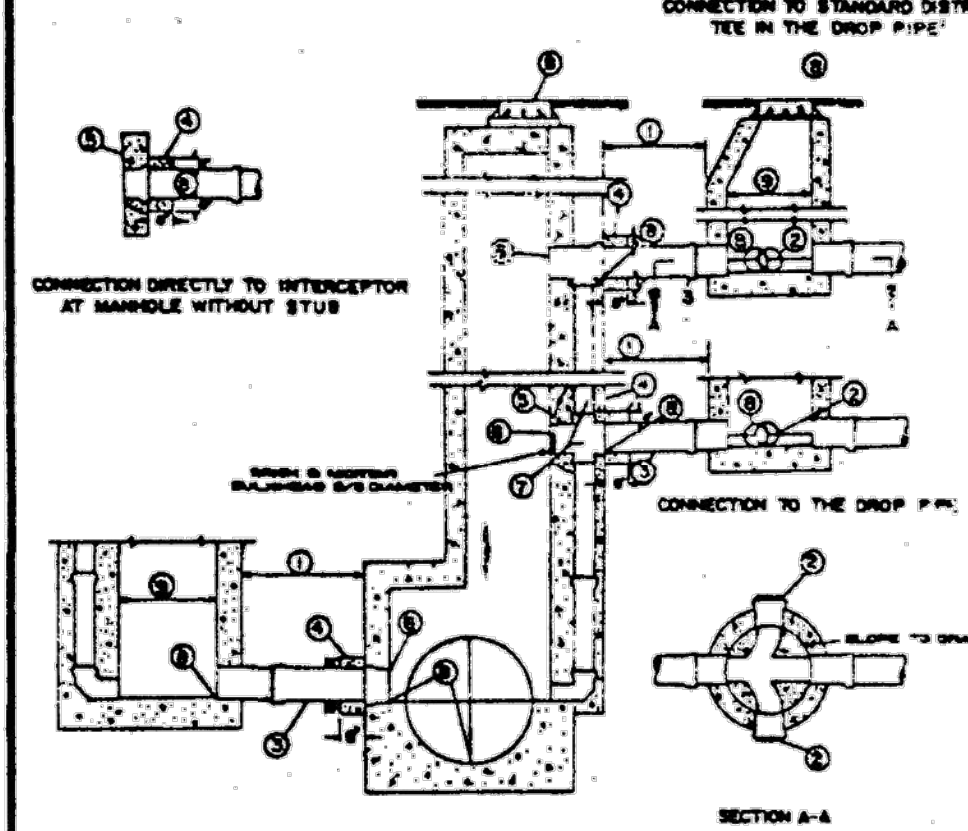
Sheet Number:
R-013

REFERENCE ONLY - NOT TO SCALE
This Reference Drawing is based upon archival data in possession of MWRDC. It is presented solely for information purpose. Reference drawing is not to be modified or change. MWRDC makes no guarantee as to the accuracy of the information, nor is it to be used to execute contract work.

PLOT DATE: 2/7/2024 3:52 PM PLOTTED BY: MADRID, MICHELLE
P:\13278ch\Drawings\Contracts\14-253-5F\Reference\Sheets\14-253-BF-R-014.dwg 1/10/2024 11:32 AM



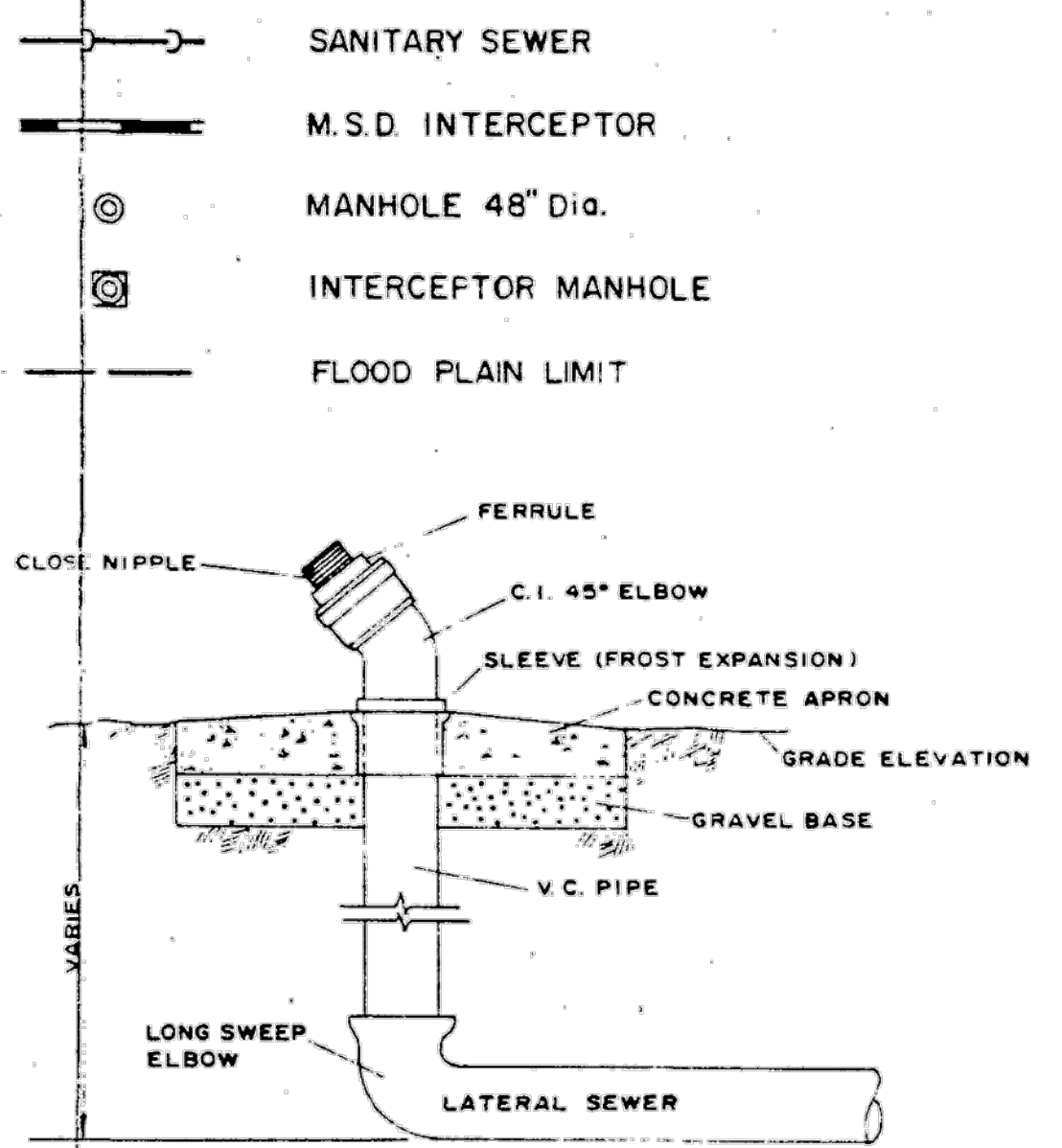
MSD M.H. CONNECTION DETAIL



GENERAL NOTES:

- IT IS NOTED THAT THE LOCAL SEWER MAY BE COMPLETELY MAINTAINED WITHOUT NECESSITATING ENTRANCE INTO THE DISTRICT MANHOLES. A MANHOLE SHALL BE PROVIDED ON THE LOCAL SEWER ADJACENT TO THE DISTRICT MANHOLE. THE CLEAR SPACE BETWEEN MANHOLES SHALL BE 3 TO 30 FEET IN THE EVENT THE LOCAL SEWER IS ON THE OPPOSITE SIDE OF THE PAVEMENT FROM THE DISTRICT MANHOLE AND SPACE IS LIMITED ADJACENT TO THE DISTRICT MANHOLE. THE LOCAL MANHOLE MAY BE BUILT ON THE OPPOSITE SIDE OF THE PAVEMENT AT A DISTANCE NO GREATER THAN 50 FEET FROM THE DISTRICT MANHOLE. CONNECTIONS WILL NOT BE PERMITTED AT LOCATIONS WHERE EXISTING DISTRICT MANHOLES ARE NOT PROVIDED.
- UNREINFORCED STUBS OF 12" DIAMETER SHALL BE PROVIDED.
- THE SIZE OF THE CONNECTION SEWER LINE SHALL BE THE SAME AS THE SIZE OF THE EXISTING TEE OR STUB PROVIDED.
- A STRUCTURAL GRADE CONCRETE OR GROUT WITH MIN 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI SHALL BE USED. EXISTING REINFORCEMENT SHALL BE LEFT INTO NEW CONCRETE.
- THE SURFACE OF THE EXPOSED CONCRETE SHALL BE SMOOTH, FREE FROM LOOSE PARTS, BRUSHED AND COATED WITH A SUITABLE PROTECTIVE COMPOUND.
- POSITIVE STEPS SHALL BE TAKEN TO ELIMINATE ANY POSSIBILITY OF DEBRIS ENTERING THE DISTRICT INTERCEPTOR DURING CONSTRUCTION. ANY DEBRIS ENTERING THE INTERCEPTOR SHALL BE REMOVED IMMEDIATELY. ANY MANHOLE STEPS THAT ARE DAMAGED SHALL BE REPLACED.
- FRITTED CLAY PIPE CROSS SHALL BE USED AND JOINED WITH THE EXISTING HOOP PIPE WITH PIPE STUBS AND COLLARS, SO THAT A WA-1-TIGHT JOINT RESULTS AND IS SUCH A MANHOLE THAT NO CONCRETE WILL SEEP INTO THE HOOP PIPE OR CROSS. THE CONNECTION RING OF THE CROSS SHALL BE NO MORE THAN TWO HOOP PIPE STUBS LONGER THAN THE HOOP PIPE.
- ELEVATIONS SHALL BE CLEARLY MARKED. THE AS-BUILT ELEVATIONS OF THE DISTRICT FACILITIES MAY BE USED; HOWEVER, THE DISTRICT WILL NOT BE RESPONSIBLE FOR THE CORRECTNESS OF THE AS-BUILT ELEVATIONS. IT IS RECOMMENDED THAT CRITICAL ELEVATIONS BE DETERMINED BY FIELD SURVEY.
- MANHOLES SHALL HAVE A MINIMUM DIAMETER OF 18" EXCEPT THAT INSPECTING MANHOLES AND DROP MANHOLES SHALL HAVE A MINIMUM DIAMETER OF 12". DROP MANHOLES SHALL BE PROVIDED WHERE REQUIRED.
- THE ABOVE APPLICABLE NOTES SHALL APPEAR IN THE PLANS SUBMITTED. A DETAIL OF THE CONNECTION SHALL BE SUPPLIED AND DRAWN TO SCALE.

SYMBOLS



GENERAL NOTES:

THE MSD LOCAL SEWERS FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK (CALL 780-4055)

ELEVATION DATUM IS U.S.G.S.

ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER.

ALL DOWNSPOUTS, FOOTING DRAINS, AND OUTSIDE DRAINS SHALL DISCHARGE TO THE STORM SYSTEM OR OVER GROUND.

ALL V.C.P. SANITARY SEWER SHALL CONFORM TO ASTM C-700 AND THE SEWER PIPE JOINTS SHALL CONFORM TO ASTM C-495.

ALL SANITARY SEWER CONSTRUCTION AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS REQUIRE 1/4" TO 1" IN SIZE, WITH A THICKNESS EQUAL TO 1/4 THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR GREATER THAN EIGHT (8) INCHES.

"BAND-SEAL" OR SIMILAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPE OF DISSIMILAR MATERIALS, EXCEPT FOR CONNECTIONS DIRECTLY TO MSD MANHOLES, WHERE THE CONNECTING PIPE SHALL BE OF THE SAME SIZE AND MATERIAL AS THE EXISTING STUB.

WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:

- CIRCULAR SAW-CUT OF THE SEWER MAIN BY PROPER TOOLS ("SEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUB-WYE SADDLE OR HUB-TEE SADDLE.
- REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
- WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND-SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.

ALL SEPTIC TANKS BEING ABANDONED SHALL BE FILLED OR REMOVED. ALL SEWER CONNECTIONS SHALL BE MADE UPSTREAM FROM THE TANK.

ALL SANITARY AND STORM MANHOLES SHALL BE PRECAST CONCRETE, TYPE-A WITH PRECAST CONCRETE ADJUSTING RINGS, AND HAVE A MINIMUM INSIDE DIAMETER OF 18". THE MANHOLE FRAME SHALL BE SECURED TO THE MANHOLE WITH MORTAR OR MASTIC.

HORIZONTAL DISTANCE OF JOINT OR SPERS CROSSING WATER MAINS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER. THIS SHALL BE THE CASE WHERE THE WATER MAIN IS EITHER ABOVE OR BELOW THE SEWER. THE CROSSING SHALL BE ARRANGED SO THAT THE SEWER PIPE JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS. WHEN IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND VERTICAL SEPARATION AS STIPULATED ABOVE, ONE OF THE FOLLOWING METHODS MUST BE SPECIFIED:

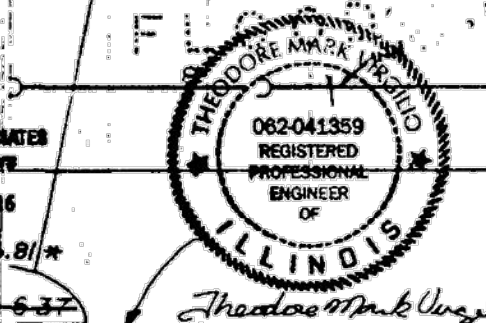
- THE SEWER SHALL BE DESIGNED AND CONSTRUCTED EQUAL TO WATER PIPE, AND SHALL BE PRESSURE TESTED TO ASSURE WATER TIGHTNESS PRIOR TO BACKFILLING.
- EITHER THE WATER MAIN OR THE SEWER LINE MAY BE ENCASED IN A WATERTIGHT CARRIER PIPE WHICH EXTENDS 10 FEET ON BOTH SIDES OF THE CROSSING, MEASURED PERPENDICULAR TO THE WATER MAIN. THE CARRIER PIPE SHALL BE OF MATERIAL APPROVED FOR USE IN WATER MAIN CONSTRUCTION.

ALL SANITARY AND/OR COMBINED SEWERS SHALL BE TESTED IN ACCORDANCE WITH ALL MSD REQUIREMENTS.

ALL CONSTRUCTION SHALL CONFORM TO THE ILLINOIS RECOMMENDED STANDARDS FOR SEWAGE WORKS, LATEST EDITION, PUBLISHED BY THE ILEPA EXCEPT FOR CONFLICTS WITH THE MSD SEWER PERMIT AND MANUAL OF PROCEDURES ORDINANCES, WHERE THE MSD ORDINANCES SHALL TAKE PRECEDENCE.

ALL SERVICE CONNECTIONS SHALL BE 6" SEWER PIPE LWD @ 0.63% IN GRADE. TOTAL = 109 ± 15' EA @ 1630 LF

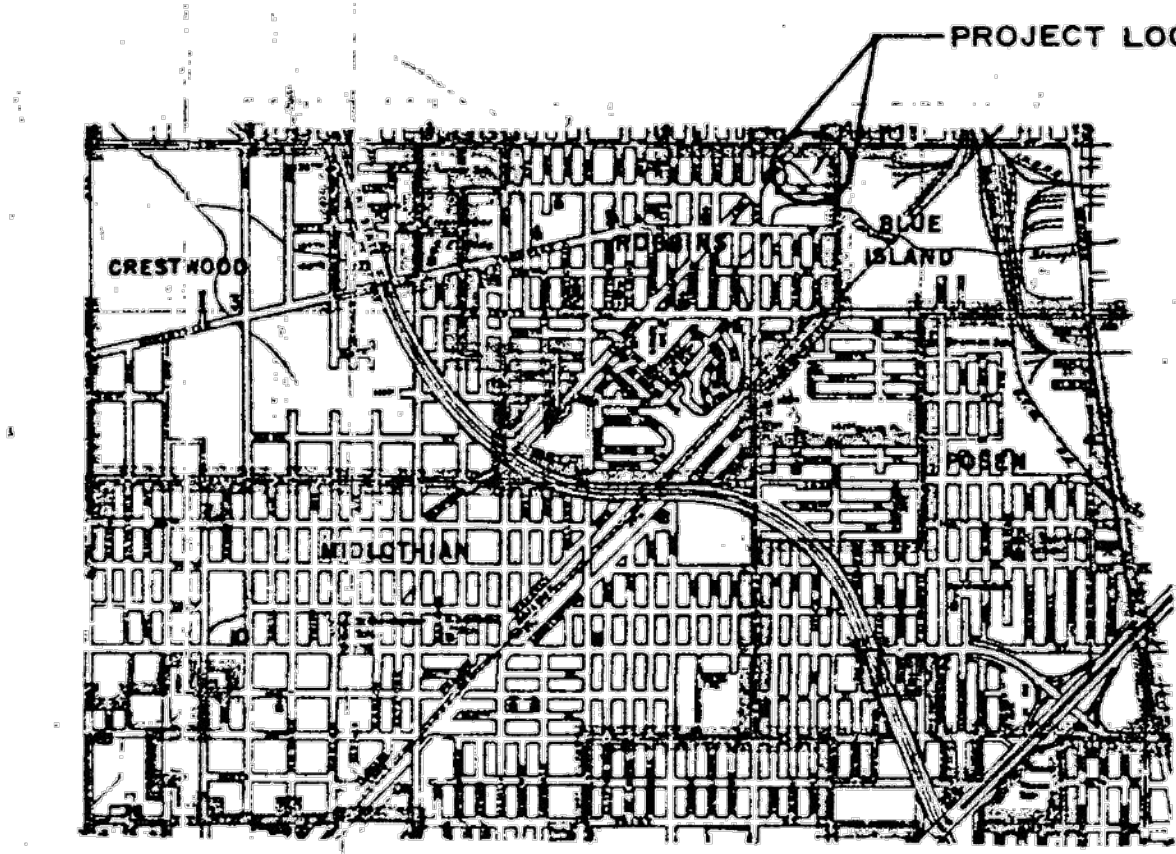
ALL SEWERS SHOWN ARE EXISTING AND WERE BUILT IN 1963
THIS PLAN IS PREPARED PURSUANT TO VIOLATION CASE No. 5019 BY MSD.



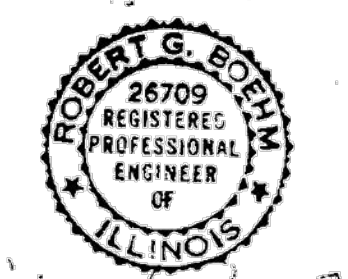
PLOT PLAN
Scale: 1" = 50'

NOTE: "AS-BUILT" SANITARY SEWER LENGTHS, SLOPES, AND RIM AND INVERT ELEVATIONS FOLLOWED BY AN ASTERISK (*) ARE PER BRANECKI-VIRGILIO & ASSOCIATES DEC 23, 1993

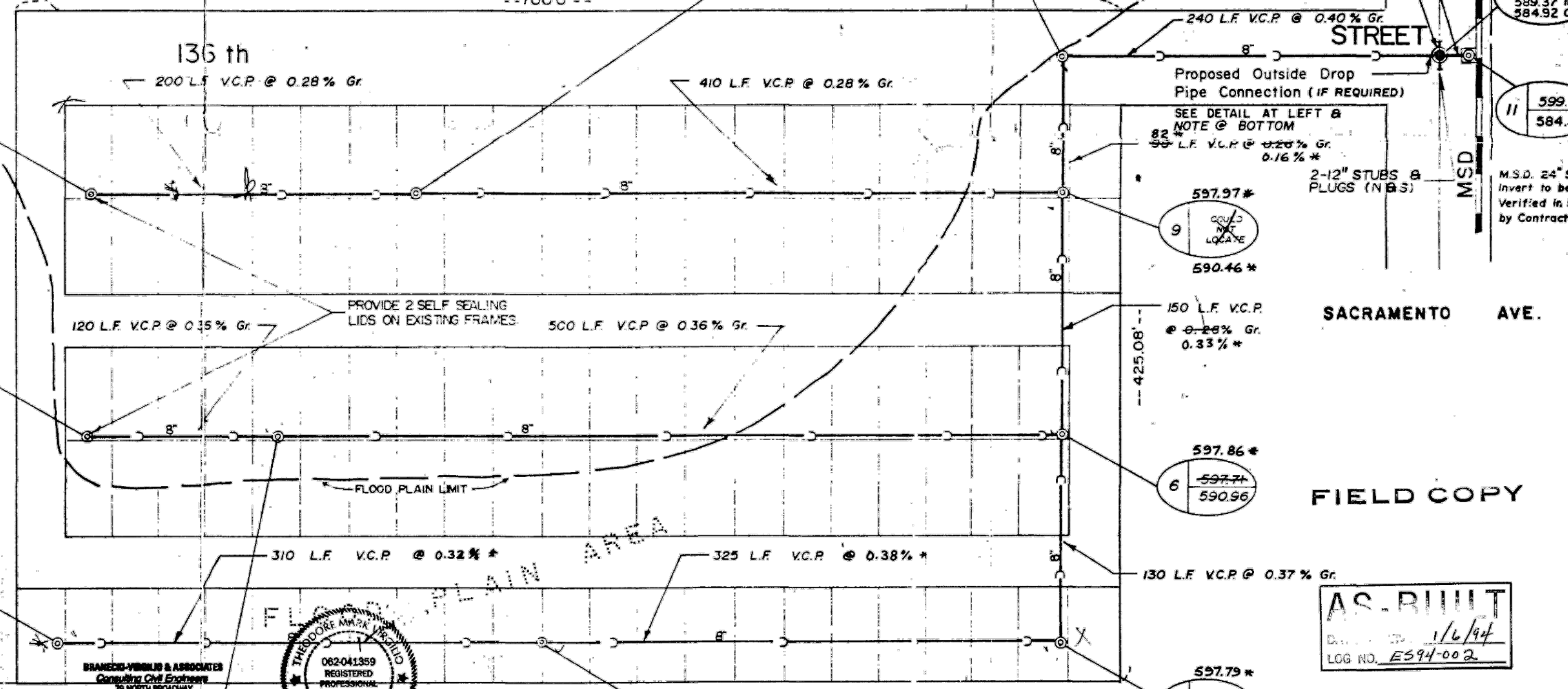
ALL OTHER INFORMATION SHOWN ON THIS PLAN AS PER NOVOTNY & ASSOCIATES, INC.



LOCATION MAP



Robert G. Borelli
25709 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS



FRANK NOVOTNY & ASSOCIATES, INC.
CONSULTING CIVIL ENGINEERS
825 MIDWAY DRIVE • WILLOWBROOK • ILLINOIS • 60521 • 312-887-8640

PROJECT **WYNNHAVEN MOBILE HOME PARK**
Robbins Illinois MSD Permit

PROJECT NO. **86027**
DRAW / DESIGN **E.K.**
CHECKED / APPROVED **RGB RGB**
DATE **4/10/86**
FIELD BOOK

| REVISIONS | | | | | |
|-----------|------|----------|-----|-----|--------|
| NO. | BY | DATE | NO. | BY | DATE |
| 1 | RGB | 8-28-86 | 2 | RGB | 6-9-87 |
| 2 | E.K. | 9-27-86 | | | |
| 3 | RGB | 11-25-86 | | | |

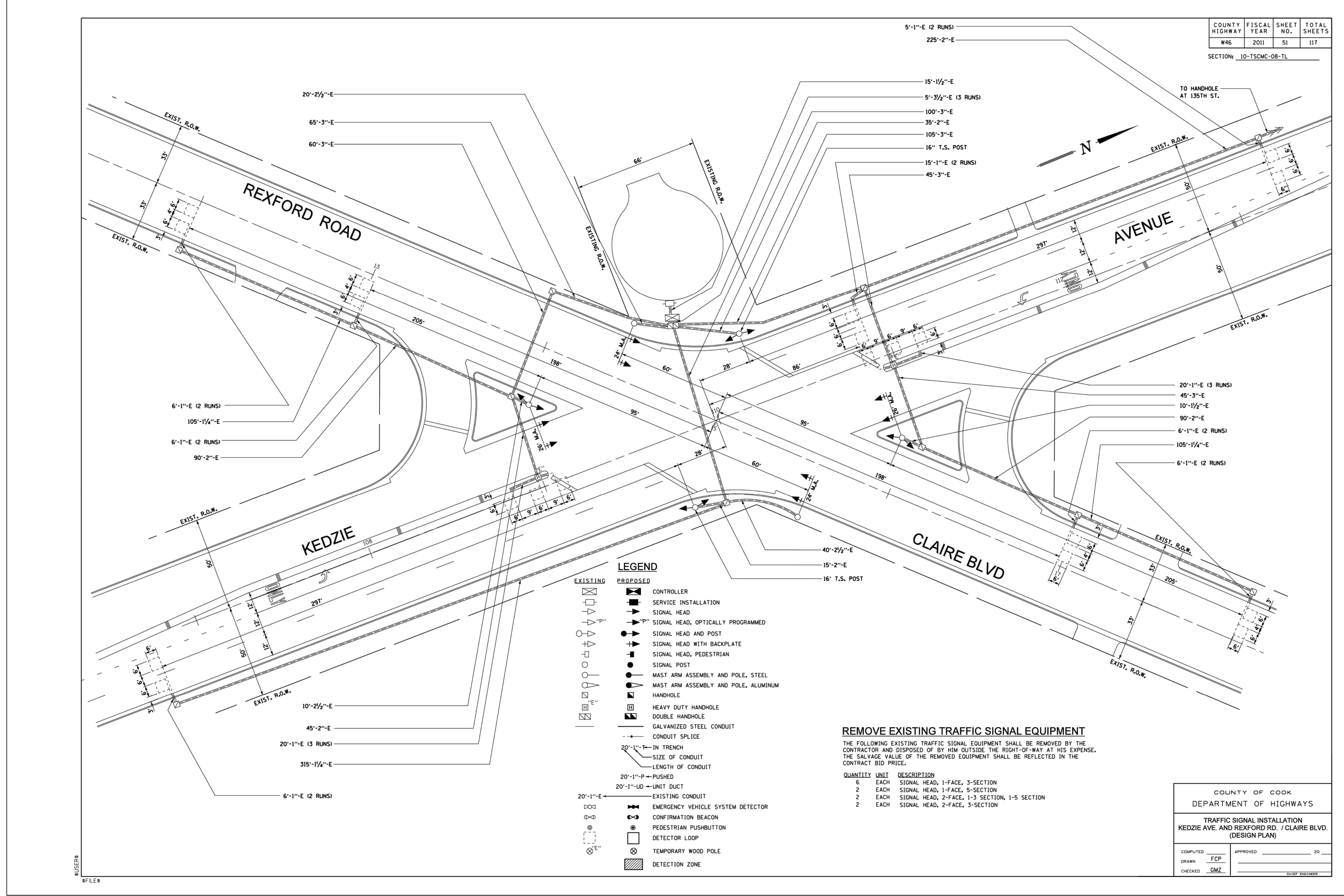
Location Map
General Notes
Plot Plan
Details

SHEET **1**
OF **1**
SHEETS

CONTRACT 14-253-5F
FLOOD CONTROL PROJECT ON
MIDLOTHIAN CREEK IN ROBBINS, CSA
LITTLE CALUMET RIVER WATERSHED
WYNNHAVEN MOBILE HOME PARK
SEWER PLAN

Sheet Number:
R-014

REFERENCE ONLY - NOT TO SCALE
 This Reference Drawing is based upon archival data in possession of MWRDC. It is presented solely for information purpose. Reference drawing is not to be modified or change. MWRDC makes no guarantee as to the accuracy of the information, nor is it to be used to execute contract work.



| COUNTY HIGHWAY | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|----------------|-------------|-----------|--------------|
| W46 | 2011 | 51 | 117 |

SECTION: 10-TSCMC-08-TL

LEGEND

| EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|--------------------------------------|
| [Symbol] | [Symbol] | CONTROLLER |
| [Symbol] | [Symbol] | SERVICE INSTALLATION |
| [Symbol] | [Symbol] | SIGNAL HEAD |
| [Symbol] | [Symbol] | SIGNAL HEAD, OPTICALLY PROGRAMMED |
| [Symbol] | [Symbol] | SIGNAL HEAD AND POST |
| [Symbol] | [Symbol] | SIGNAL HEAD WITH BACKPLATE |
| [Symbol] | [Symbol] | SIGNAL HEAD, PEDESTRIAN |
| [Symbol] | [Symbol] | SIGNAL POST |
| [Symbol] | [Symbol] | MAST ARM ASSEMBLY AND POLE, STEEL |
| [Symbol] | [Symbol] | MAST ARM ASSEMBLY AND POLE, ALUMINUM |
| [Symbol] | [Symbol] | HANDHOLE |
| [Symbol] | [Symbol] | HEAVY DUTY HANDHOLE |
| [Symbol] | [Symbol] | DOUBLE HANDHOLE |
| [Symbol] | [Symbol] | GALVANIZED STEEL CONDUIT |
| [Symbol] | [Symbol] | CONDUIT SPLICE |
| [Symbol] | [Symbol] | IN TRENCH |
| [Symbol] | [Symbol] | SIZE OF CONDUIT |
| [Symbol] | [Symbol] | LENGTH OF CONDUIT |
| [Symbol] | [Symbol] | 20'-1"-P - PUSHED |
| [Symbol] | [Symbol] | 20'-1"-LD - UNIT DUCT |
| [Symbol] | [Symbol] | EXISTING CONDUIT |
| [Symbol] | [Symbol] | EMERGENCY VEHICLE SYSTEM DETECTOR |
| [Symbol] | [Symbol] | CONFIRMATION BEACON |
| [Symbol] | [Symbol] | PEDESTRIAN PUSHBUTTON |
| [Symbol] | [Symbol] | DETECTOR LOOP |
| [Symbol] | [Symbol] | TEMPORARY WOOD POLE |
| [Symbol] | [Symbol] | DETECTION ZONE |

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF BY HIM OUTSIDE THE RIGHT-OF-WAY AT HIS EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

| QUANTITY | UNIT | DESCRIPTION |
|----------|------|---|
| 6 | EACH | SIGNAL HEAD, 1-FACE, 3-SECTION |
| 2 | EACH | SIGNAL HEAD, 1-FACE, 5-SECTION |
| 2 | EACH | SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION |
| 2 | EACH | SIGNAL HEAD, 2-FACE, 3-SECTION |

| | |
|--|----------------|
| COUNTY OF COOK DEPARTMENT OF HIGHWAYS | |
| TRAFFIC SIGNAL INSTALLATION KEDZIE AVE. AND REXFORD RD. / CLAIRE BLVD. (DESIGN PLAN) | |
| COMPUTED | APPROVED |
| DRAWN: FCP | 20 |
| CHECKED: CMZ | CHIEF ENGINEER |

CONTRACT 14-253-5F
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, CSA
 LITTLE CALUMET RIVER WATERSHED
**CCDOH KEDZIE AVE AND CLAIRE
 BLVD TRAFFIC SIGNAL PLAN**

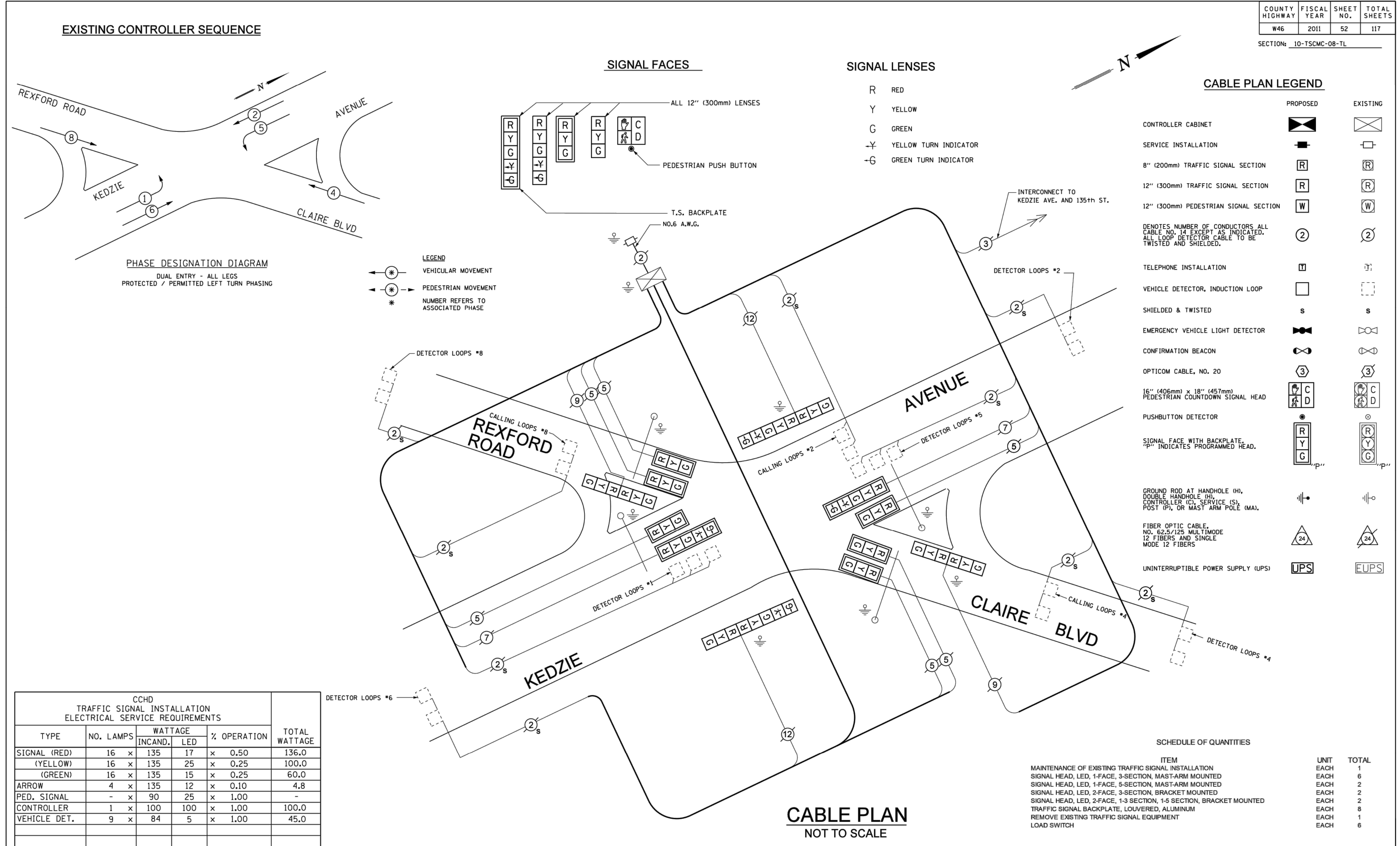
Sheet Number:
R-015

REFERENCE ONLY - NOT TO SCALE

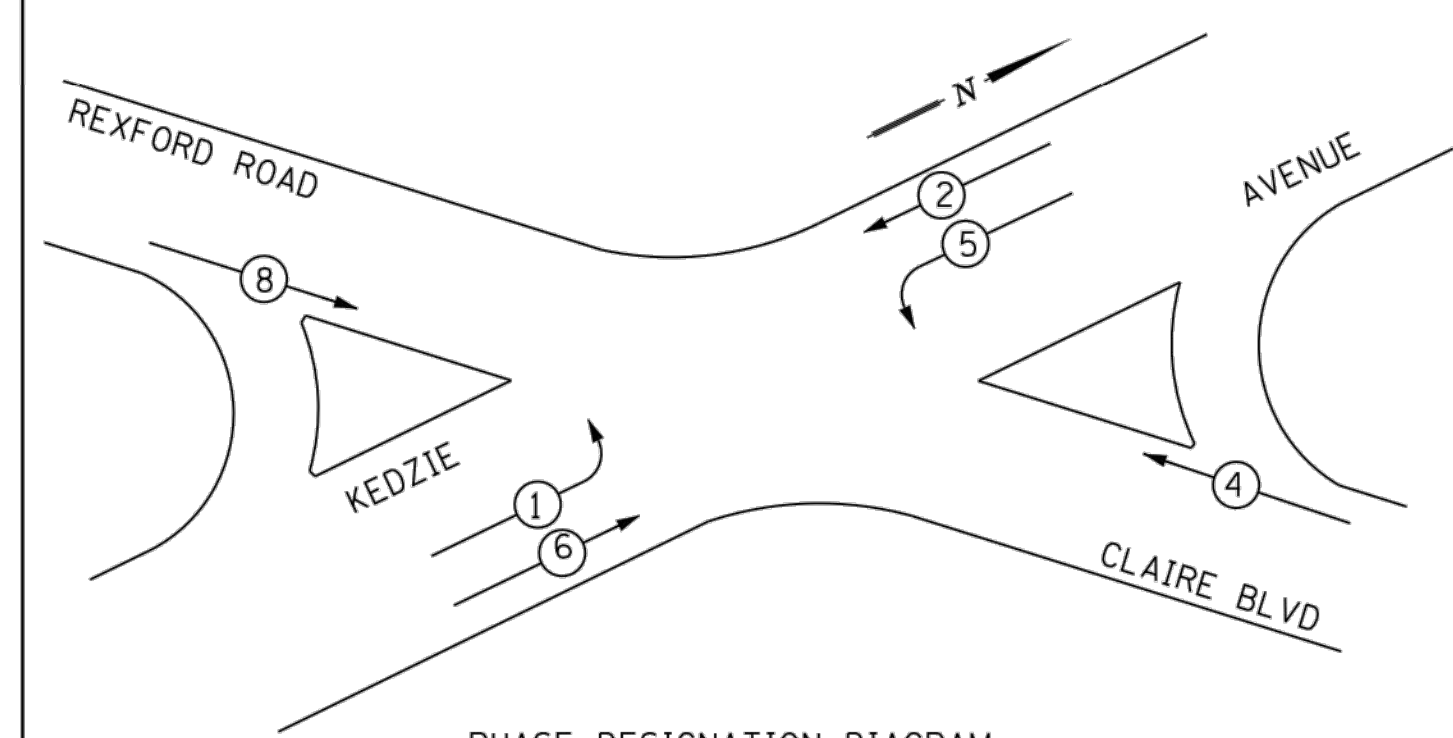
This Reference Drawing is based upon archival data in possession of MWRDCC. It is presented solely for information purpose. Reference drawing is not to be modified or change. MWRDCC makes no guarantee as to the accuracy of the information, nor is it to be used to execute contract work.

| COUNTY HIGHWAY | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|----------------|-------------|-----------|--------------|
| W46 | 2011 | 52 | 117 |

SECTION: 10-TSCMC-08-TL



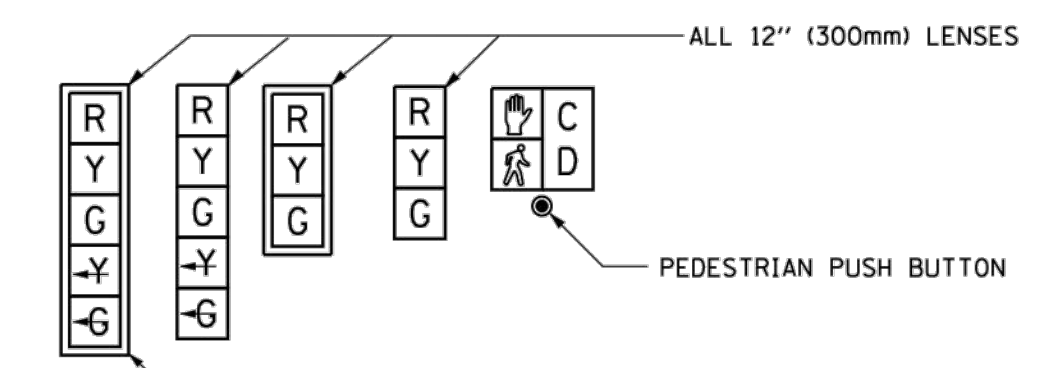
EXISTING CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM
 DUAL ENTRY - ALL LEGS
 PROTECTED / PERMITTED LEFT TURN PHASING

LEGEND
 * VEHICULAR MOVEMENT
 * PEDESTRIAN MOVEMENT
 * NUMBER REFERS TO ASSOCIATED PHASE

SIGNAL FACES



SIGNAL LENSES

- R RED
- Y YELLOW
- G GREEN
- Y- YELLOW TURN INDICATOR
- G GREEN TURN INDICATOR

CABLE PLAN LEGEND

- | | PROPOSED | EXISTING |
|--|----------|----------|
| CONTROLLER CABINET | | |
| SERVICE INSTALLATION | | |
| 8" (200mm) TRAFFIC SIGNAL SECTION | | |
| 12" (300mm) TRAFFIC SIGNAL SECTION | | |
| 12" (300mm) PEDESTRIAN SIGNAL SECTION | | |
| DENOTES NUMBER OF CONDUCTORS ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE TWISTED AND SHIELDED. | | |
| TELEPHONE INSTALLATION | | |
| VEHICLE DETECTOR, INDUCTION LOOP | | |
| SHIELDED & TWISTED | | |
| EMERGENCY VEHICLE LIGHT DETECTOR | | |
| CONFIRMATION BEACON | | |
| OPTICOM CABLE, NO. 20 | | |
| 16" (406mm) x 18" (457mm) PEDESTRIAN COUNTDOWN SIGNAL HEAD | | |
| PUSHBUTTON DETECTOR | | |
| SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD. | | |
| GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), CONTROLLER (C), SERVICE (S), POST (P), OR MAST ARM POLE (MA). | | |
| FIBER OPTIC CABLE, NO. 62.5/125 MULTIMODE 12 FIBERS AND SINGLE MODE 12 FIBERS | | |
| UNINTERRUPTIBLE POWER SUPPLY (UPS) | | |

| CCHD TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS | | | | | |
|--|-----------|---------|-----|-------------|---------------|
| TYPE | NO. LAMPS | WATTAGE | | % OPERATION | TOTAL WATTAGE |
| | | INCAND. | LED | | |
| SIGNAL (RED) | 16 x | 135 | 17 | x 0.50 | 136.0 |
| (YELLOW) | 16 x | 135 | 25 | x 0.25 | 100.0 |
| (GREEN) | 16 x | 135 | 15 | x 0.25 | 60.0 |
| ARROW | 4 x | 135 | 12 | x 0.10 | 4.8 |
| PED. SIGNAL | - x | 90 | 25 | x 1.00 | - |
| CONTROLLER | 1 x | 100 | 100 | x 1.00 | 100.0 |
| VEHICLE DET. | 9 x | 84 | 5 | x 1.00 | 45.0 |
| FLASHER | | | | | |
| ENERGY COSTS TO: | | | | | |
| CALL CCHD FOR BILLING INFORMATION AT (312) 603-1730. | | | | | |
| ENERGY SUPPLY CONTACT: ComEd | | | | | |
| PHONE: (866)-639-3532 | | | | | |
| COMPANY: ComEd | | | | | |
| TOTAL = | | | | | 445.80 |

SCHEDULE OF QUANTITIES

| ITEM | UNIT | TOTAL |
|---|------|-------|
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 |
| SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED | EACH | 6 |
| SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED | EACH | 2 |
| SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED | EACH | 2 |
| SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED | EACH | 2 |
| TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM | EACH | 8 |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| LOAD SWITCH | EACH | 6 |

COUNTY OF COOK
 DEPARTMENT OF HIGHWAYS

TRAFFIC SIGNAL INSTALLATION
 KEDZIE AVE. AND REXFORD RD. / CLAIRE BLVD.
 CABLE PLAN

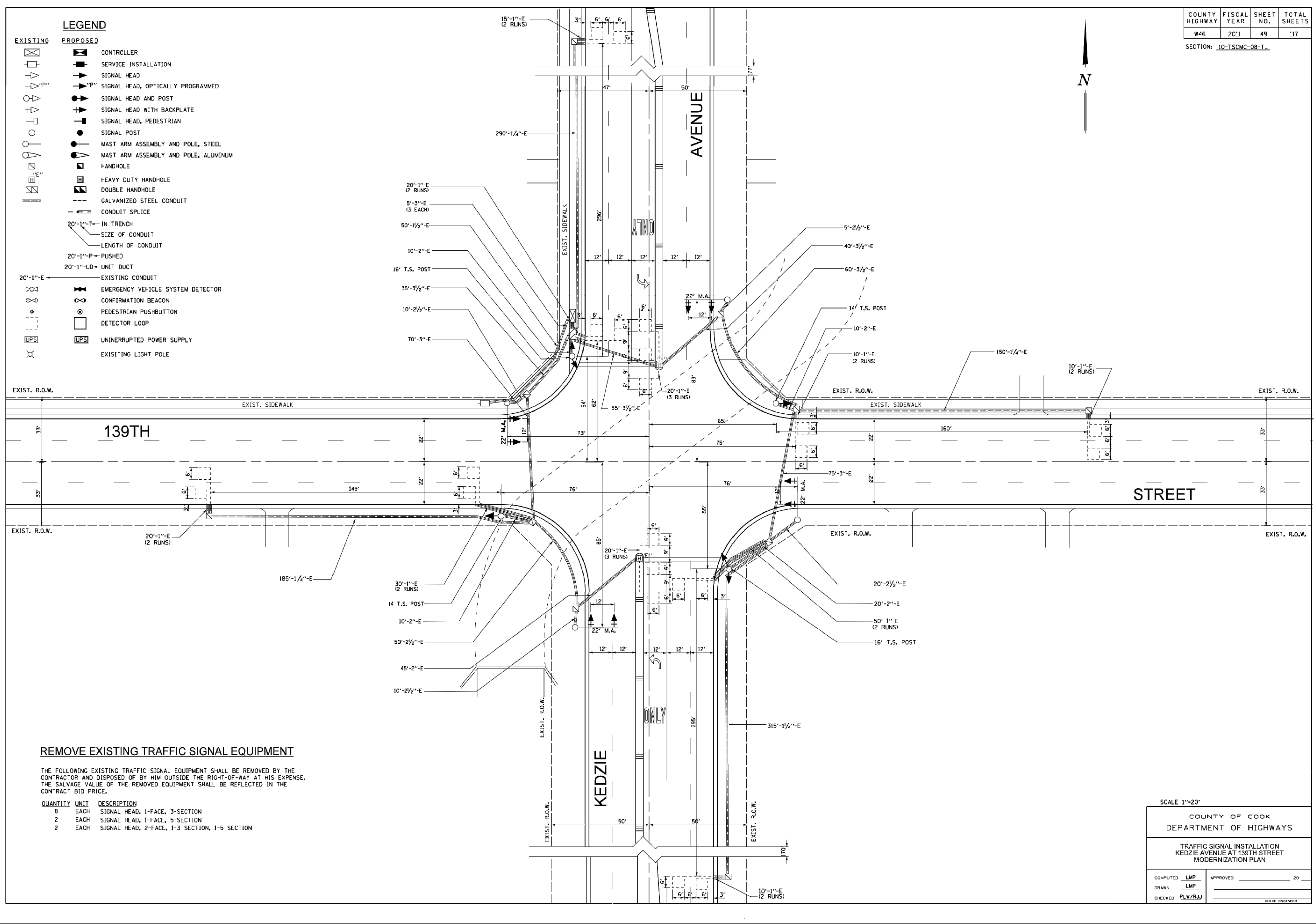
COMPUTED _____ APPROVED _____ 20____
 DRAWN FCP
 CHECKED CMZ

CONTRACT 14-253-5F
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, CSA
 LITTLE CALUMET RIVER WATERSHED
**CCDOOTH KEDZIE AVE AND CLAIRE
 AVE TRAFFIC SIGNAL CABLE PLAN**

Sheet Number:
R-016

REFERENCE ONLY - NOT TO SCALE

This Reference Drawing is based upon archival data in possession of MWRDCC. It is presented solely for information purposes. Reference drawing is not to be modified or change. MWRDCC makes no guarantee as to the accuracy of the information, nor is it to be used to execute contract work.



LEGEND

| EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|--------------------------------------|
| [Symbol] | [Symbol] | CONTROLLER |
| [Symbol] | [Symbol] | SERVICE INSTALLATION |
| [Symbol] | [Symbol] | SIGNAL HEAD |
| [Symbol] | [Symbol] | SIGNAL HEAD, OPTICALLY PROGRAMMED |
| [Symbol] | [Symbol] | SIGNAL HEAD AND POST |
| [Symbol] | [Symbol] | SIGNAL HEAD WITH BACKPLATE |
| [Symbol] | [Symbol] | SIGNAL HEAD, PEDESTRIAN |
| [Symbol] | [Symbol] | SIGNAL POST |
| [Symbol] | [Symbol] | MAST ARM ASSEMBLY AND POLE, STEEL |
| [Symbol] | [Symbol] | MAST ARM ASSEMBLY AND POLE, ALUMINUM |
| [Symbol] | [Symbol] | HANDHOLE |
| [Symbol] | [Symbol] | HEAVY DUTY HANDHOLE |
| [Symbol] | [Symbol] | DOUBLE HANDHOLE |
| [Symbol] | [Symbol] | GALVANIZED STEEL CONDUIT |
| [Symbol] | [Symbol] | CONDUIT SPLICE |
| [Symbol] | [Symbol] | 20'-1"-I IN TRENCH |
| [Symbol] | [Symbol] | SIZE OF CONDUIT |
| [Symbol] | [Symbol] | LENGTH OF CONDUIT |
| [Symbol] | [Symbol] | 20'-1"-P PUSHED |
| [Symbol] | [Symbol] | 20'-1"-UD UNIT DUCT |
| [Symbol] | [Symbol] | EXISTING CONDUIT |
| [Symbol] | [Symbol] | EMERGENCY VEHICLE SYSTEM DETECTOR |
| [Symbol] | [Symbol] | CONFIRMATION BEACON |
| [Symbol] | [Symbol] | PEDESTRIAN PUSHBUTTON |
| [Symbol] | [Symbol] | DETECTOR LOOP |
| [Symbol] | [Symbol] | UNINTERRUPTED POWER SUPPLY |
| [Symbol] | [Symbol] | EXISTING LIGHT POLE |

| COUNTY HIGHWAY | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|----------------|-------------|-----------|--------------|
| W46 | 2011 | 49 | 117 |

SECTION: 10-TSCMC-08-TL

139TH

STREET

KEDZIE

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF BY HIM OUTSIDE THE RIGHT-OF-WAY AT HIS EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

| QUANTITY | UNIT | DESCRIPTION |
|----------|------|---|
| 0 | EACH | SIGNAL HEAD, 1-FACE, 3-SECTION |
| 2 | EACH | SIGNAL HEAD, 1-FACE, 5-SECTION |
| 2 | EACH | SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION |

SCALE 1"=20'

| | |
|--|----------------------|
| COUNTY OF COOK DEPARTMENT OF HIGHWAYS | |
| TRAFFIC SIGNAL INSTALLATION KEDZIE AVENUE AT 139TH STREET MODERNIZATION PLAN | |
| COMPUTED LMP | APPROVED _____ 20 |
| DRAWN LMP | |
| CHECKED PLW/RLJ | _____ CHIEF ENGINEER |

CONTRACT 14-253-5F
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, CSA
 LITTLE CALUMET RIVER WATERSHED
**CCDOH KEDZIE AVE AND 139TH
 STREET TRAFFIC SIGNAL INSTALLATION**

Sheet Number:
R-017

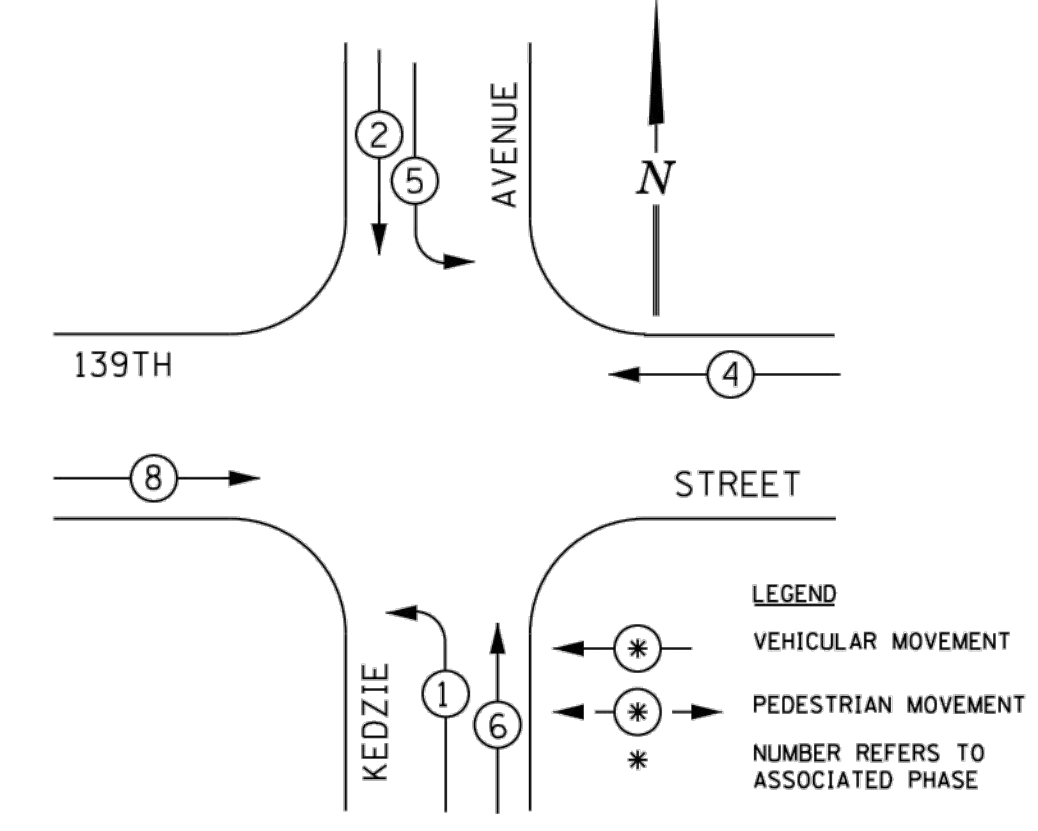
REFERENCE ONLY - NOT TO SCALE

This Reference Drawing is based upon archival data in possession of MWRDCC. It is presented solely for information purpose. Reference drawing is not to be modified or change. MWRDCC makes no guarantee as to the accuracy of the information, nor is it to be used to execute contract work.

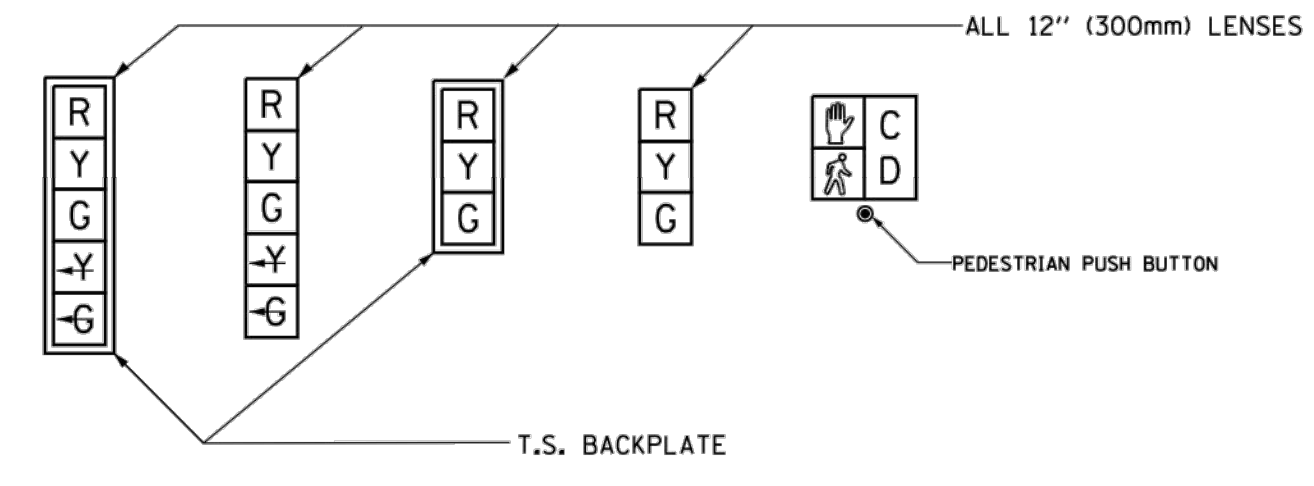
| COUNTY HIGHWAY | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|----------------|-------------|-----------|--------------|
| W46 | 2011 | 50 | 117 |

SECTION: 10-TSCMC-08-TL

CONTROLLER SEQUENCE

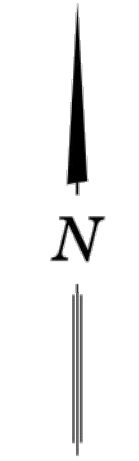


SIGNAL FACES



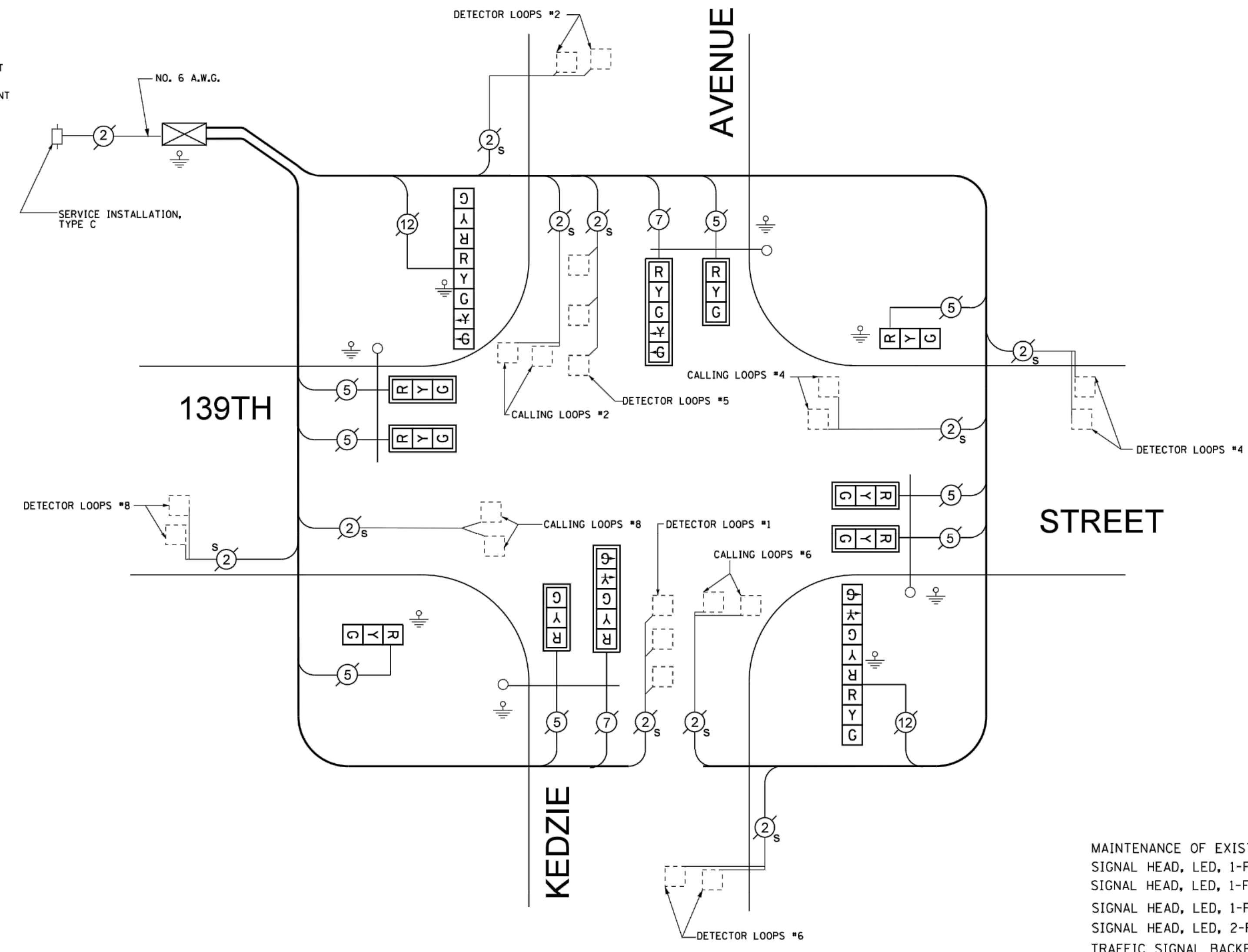
SIGNAL LENSES

- R RED
- Y YELLOW
- G GREEN
- Y-G YELLOW TURN INDICATOR
- G-G GREEN TURN INDICATOR



CABLE PLAN LEGEND

| | PROPOSED | EXISTING |
|--|----------|----------|
| CONTROLLER CABINET | [Symbol] | [Symbol] |
| SERVICE INSTALLATION | [Symbol] | [Symbol] |
| 8" (200mm) TRAFFIC SIGNAL SECTION | [Symbol] | [Symbol] |
| 12" (300mm) TRAFFIC SIGNAL SECTION | [Symbol] | [Symbol] |
| 12" (300mm) PEDESTRIAN SIGNAL SECTION | [Symbol] | [Symbol] |
| DENOTES NUMBER OF CONDUCTORS ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE TWISTED AND SHIELDED. | [Symbol] | [Symbol] |
| TELEPHONE INSTALLATION | [Symbol] | [Symbol] |
| VEHICLE DETECTOR, INDUCTION LOOP | [Symbol] | [Symbol] |
| SHIELDED & TWISTED | [Symbol] | [Symbol] |
| EMERGENCY VEHICLE LIGHT DETECTOR | [Symbol] | [Symbol] |
| CONFIRMATION BEACON | [Symbol] | [Symbol] |
| OPTICOM CABLE, NO. 20 | [Symbol] | [Symbol] |
| 16" (406mm) x 18" (457mm) PEDESTRIAN COUNTDOWN SIGNAL HEAD | [Symbol] | [Symbol] |
| PUSHBUTTON DETECTOR | [Symbol] | [Symbol] |
| SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD. | [Symbol] | [Symbol] |
| GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), CONTROLLER (C), SERVICE (S), POST (P), OR MAST ARM POLE (MA). | [Symbol] | [Symbol] |
| FIBER OPTIC CABLE, NO. 62.5/125 MULTIMODE 12 FIBERS AND SINGLE MODE 12 FIBERS | [Symbol] | [Symbol] |
| UNINTERRUPTIBLE POWER SUPPLY | [Symbol] | [Symbol] |



CABLE PLAN
 NOT TO SCALE

| CCHD TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS | | | | | |
|---|-----------|---------|-----|-------------|---------------|
| TYPE | NO. LAMPS | WATTAGE | | % OPERATION | TOTAL WATTAGE |
| | | INCAND. | LED | | |
| SIGNAL (RED) | 14 | x 135 | 17 | x 0.50 | 119 |
| (YELLOW) | 14 | x 135 | 25 | x 0.25 | 87.5 |
| (GREEN) | 14 | x 135 | 15 | x 0.25 | 52.5 |
| ARROW | 4 | x 135 | 12 | x 0.10 | 4.8 |
| PED. SIGNAL | 0 | x 90 | 25 | x 1.00 | 0 |
| CONTROLLER | 1 | x 100 | 100 | x 1.00 | 100 |
| VEHICLE DET. | 10 | x 84 | 5 | x 0.05 | 50 |
| FLASHER | | | | x 0.50 | |
| ENERGY COSTS TO: | | | | | TOTAL = 413.8 |
| CALL CCHD FOR BILLING INFORMATION AT (312) 603-1730. | | | | | |
| ENERGY SUPPLY CONTACT: ComEd PHONE: (866)-639-3532 COMPANY: ComEd | | | | | |

| ITEM | UNIT | TOTAL |
|---|------|-------|
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 |
| SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED | EACH | 6 |
| SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED | EACH | 2 |
| SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED | EACH | 2 |
| SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED | EACH | 2 |
| TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM | EACH | 8 |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| LOAD SWITCH | EACH | 6 |

COUNTY OF COOK
 DEPARTMENT OF HIGHWAYS

TRAFFIC SIGNAL INSTALLATION
 KEDZIE AVENUE AT 139TH STREET
 CABLE PLAN

COMPUTED: LMP
 DRAWN: LMP
 CHECKED: FLW/RAJ

APPROVED: _____ 20____

CONTRACT 14-253-5F
 FLOOD CONTROL PROJECT ON
 MIDLOTHIAN CREEK IN ROBBINS, CSA
 LITTLE CALUMET RIVER WATERSHED
**CCDOH KEDZIE AVE AND 139TH
 ST TRAFFIC SIGNAL CABLE PLAN**

Sheet Number:
R-018

REFERENCE ONLY - NOT TO SCALE

This Reference Drawing is based upon archival data in possession of MWRDCC. It is presented solely for information purposes. Reference drawing is not to be modified or change. MWRDCC makes no guarantee as to the accuracy of the information, nor is it to be used to execute contract work.