



November 1, 2017

HAND DELIVER

Honorable Detroit City Council
C/o Detroit City Clerk
2 Woodward Avenue
200 Coleman A. Young Municipal Center
Detroit, Michigan 48226

RE: Giffels Webster, Neighborhood Development Corporation, and Economic Development Corporation of the City of Detroit, request to encroach public rights-of-way with private storm water management system in the Jefferson Village neighborhood.

Jefferson Village is located in the City of Detroit and is bounded by Jefferson Avenue to the north, St. Jean Avenue to the east, Freud Street to the south, and the Harding Canal to the west. This area consists of a shopping plaza known as the "Shops at Jefferson Village" and single family homes and is serviced by a combined sewer system. The Jefferson Village project aims to separate the storm flow from the combined system and divert it to an underground stormwater detention system. Giffels Webster respectfully requests sub-surface encroachments for the following public right-of-ways:

- Harding Avenue (50 feet wide), between Edlie Street and Freud Avenue; beginning 365 feet south of south Edlie ROW and extending 20 feet south, full ROW in width
- Intersection of Lisette Avenue and Meadowbrook Avenue; 55 feet easterly from west Meadowbrook ROW and 48 feet northerly from south Lisette ROW
- Montclair Avenue (50 feet wide) at Lisette; beginning at south ROW of Lisette and extending south 20 feet, full ROW in width
- Lemay Avenue (50 feet wide) at Lisette; beginning at south ROW of Lisette and extending south 20 feet, full ROW in width
- Fairview Avenue (66 feet wide) at Lisette; beginning at south ROW of Lisette and extending south 20 feet, full ROW in width
- Lillibridge Avenue (50 feet wide) at Lisette; beginning at south ROW of Lisette and extending south 20 feet, full ROW in width
- Lisette Avenue (80 feet wide) at St. Jean Avenue; beginning at west ROW of St. Jean and extending west 20 feet, full ROW in width
- St. Jean Avenue between Lisette Avenue and Edlie Avenue; beginning 10 feet north of north Lisette ROW and extending 690 feet north, and 17 feet easterly from west St. Jean ROW
- St. Jean Avenue at Edlie Street; beginning at south ROW of Edlie and extending south 31 feet, and 10 feet easterly from west St. Jean ROW
- Intersection of Edlie Street and St. Jean Avenue; 50 feet southerly from north Edlie ROW, and 10 feet west and 10 feet east from west St. Jean ROW
- St. Jean Avenue between Jefferson Avenue and Edlie Street; beginning 258 feet from south Jefferson ROW and extending south 465 feet, and 10 feet easterly from west St. Jean ROW

- Lillibridge Avenue (50 feet wide) between Jefferson Avenue and Edlie Street; beginning 199 feet from south Jefferson ROW and extending 160 feet south, full ROW in width

All work outlined above will be performed per Michigan Plumbing Code, City of Detroit, CED, and DWSD Standards. Limits of the requested encroachments can be found in the attachment, enclosed herein. If you should have any questions, please do not hesitate to contact Michael Marks at 313.980.1469 or mmarks@giffelswebster.com.

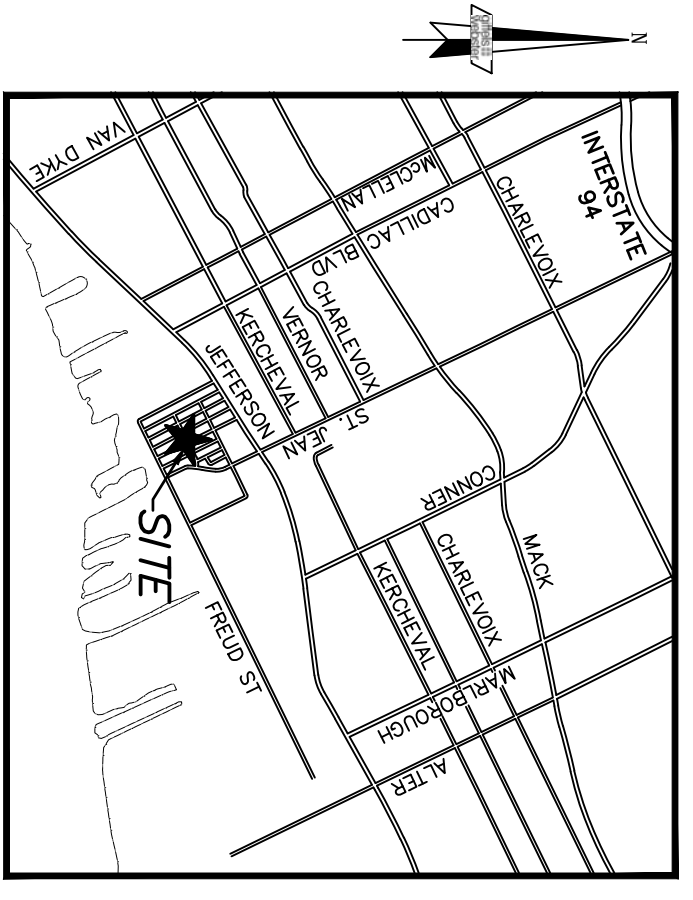
Respectfully,

Giffels Webster

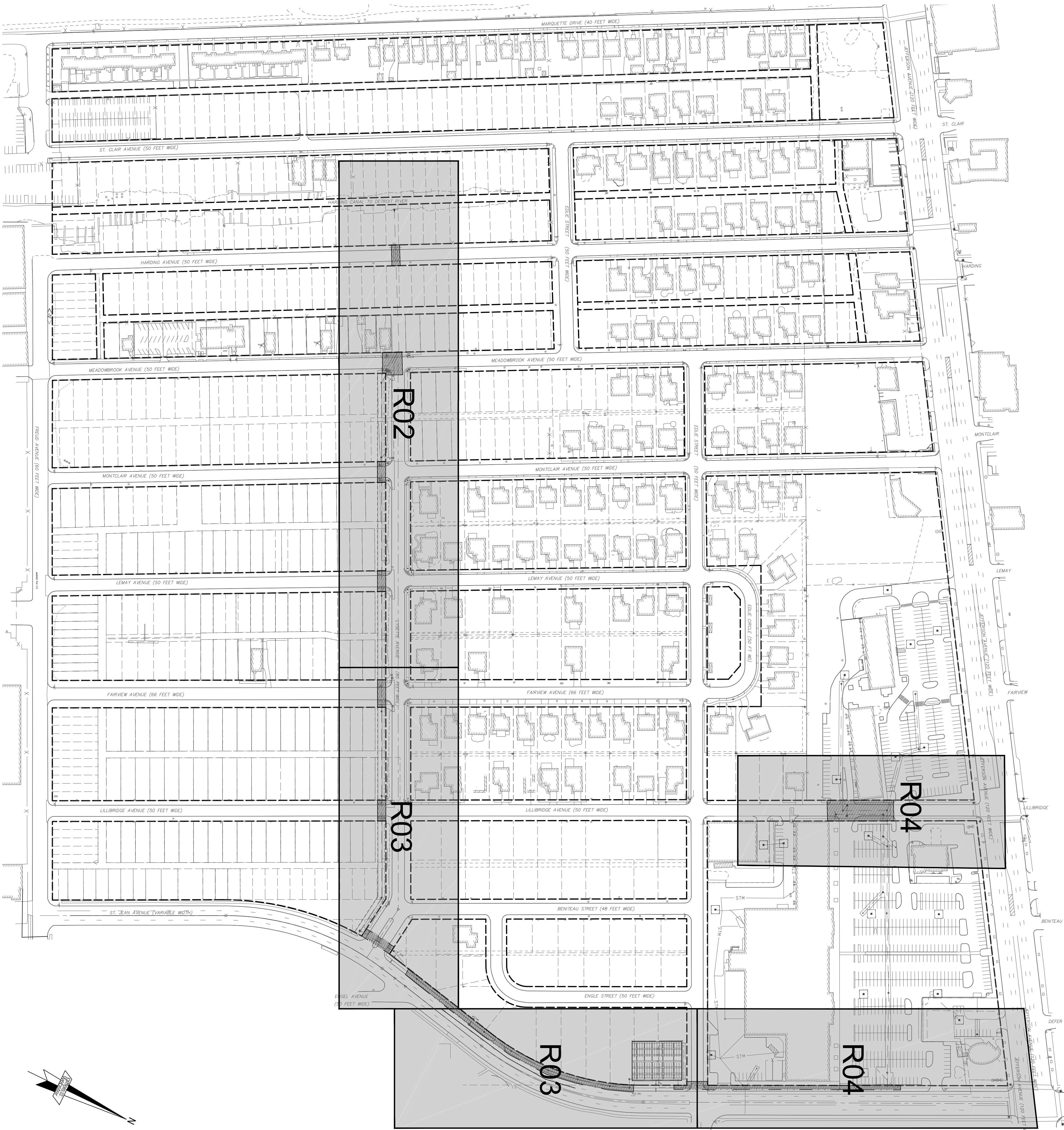
A handwritten signature in black ink, appearing to read "Michael A. Marks".

Michael Marks, PE
Partner

PRIVATE STORMWATER MANAGEMENT ENCROACHMENT SYSTEM ENCROACHMENT

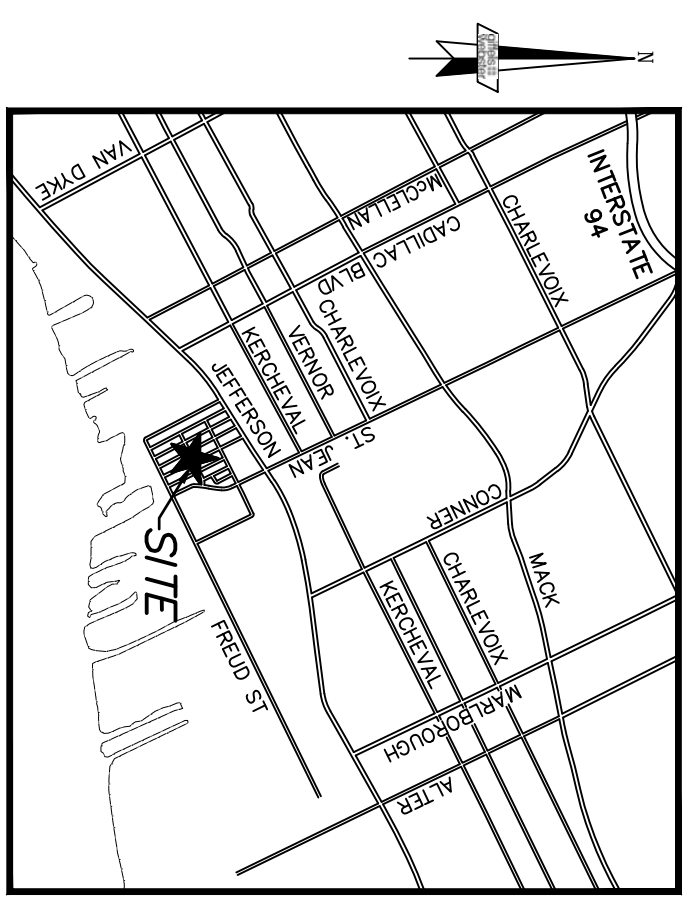


LOCATION MAP
(NOT TO SCALE)



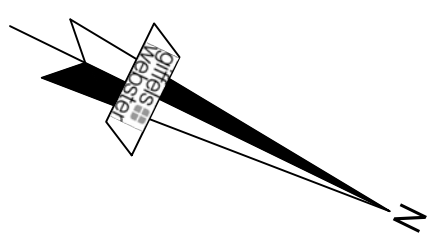
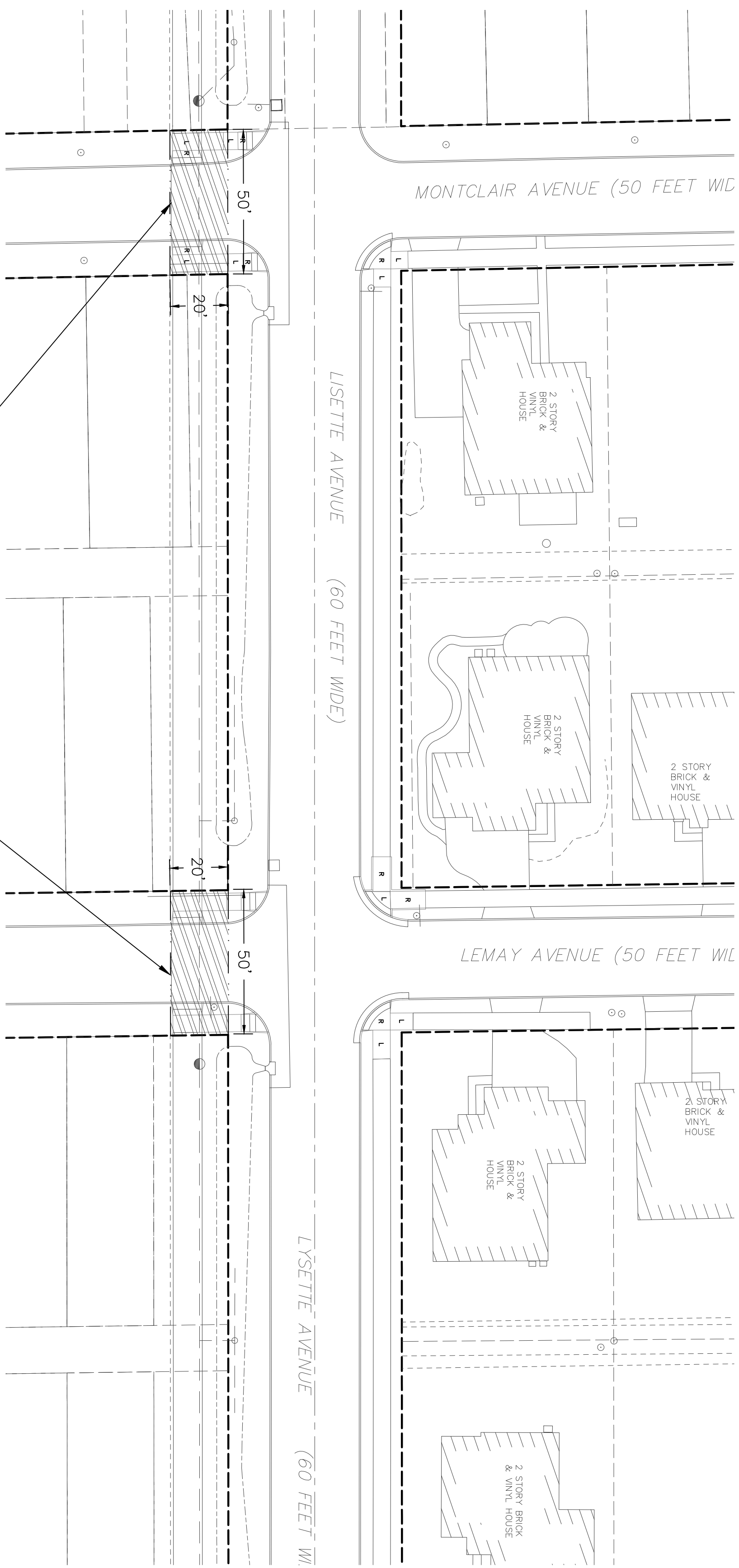
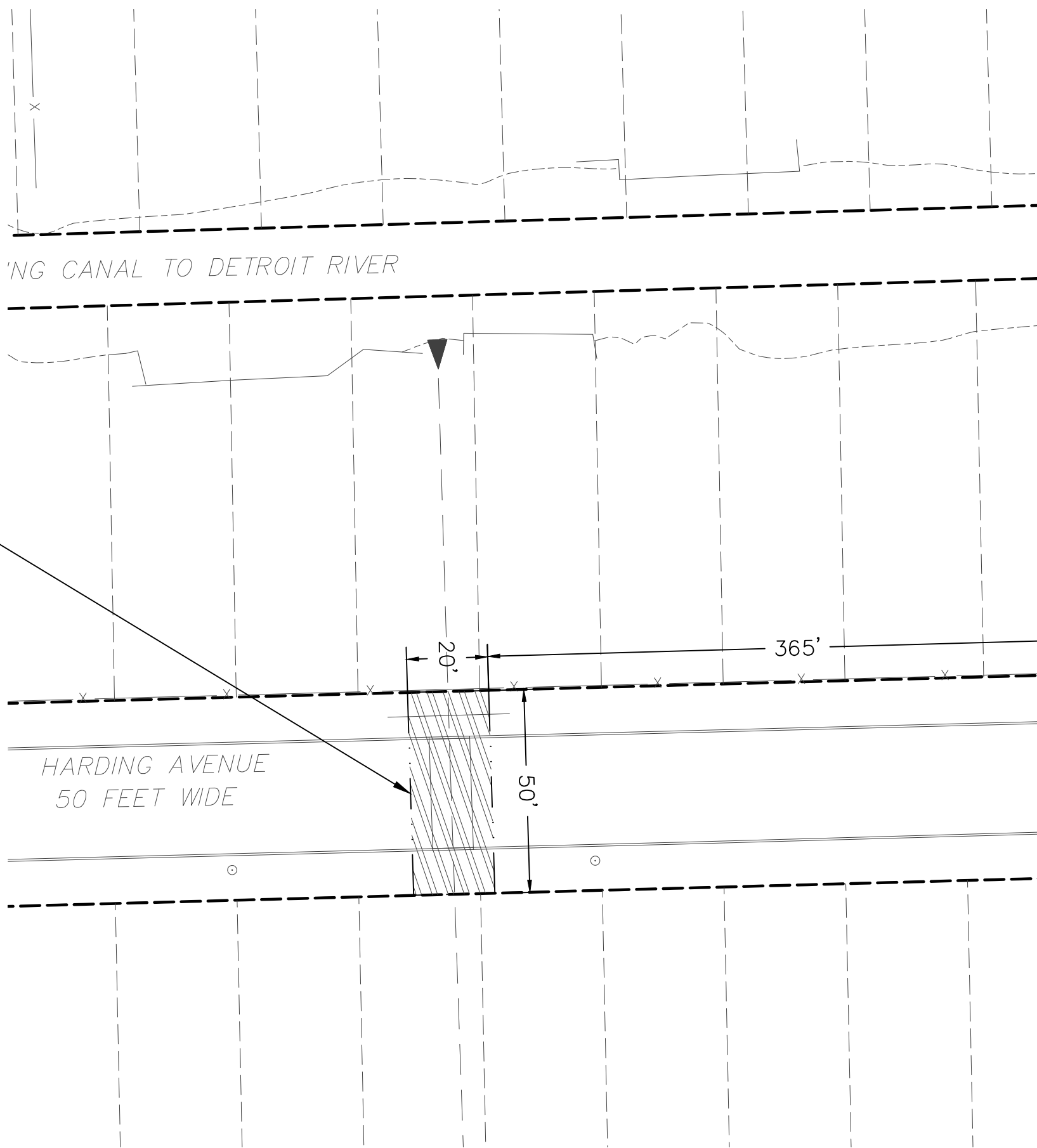
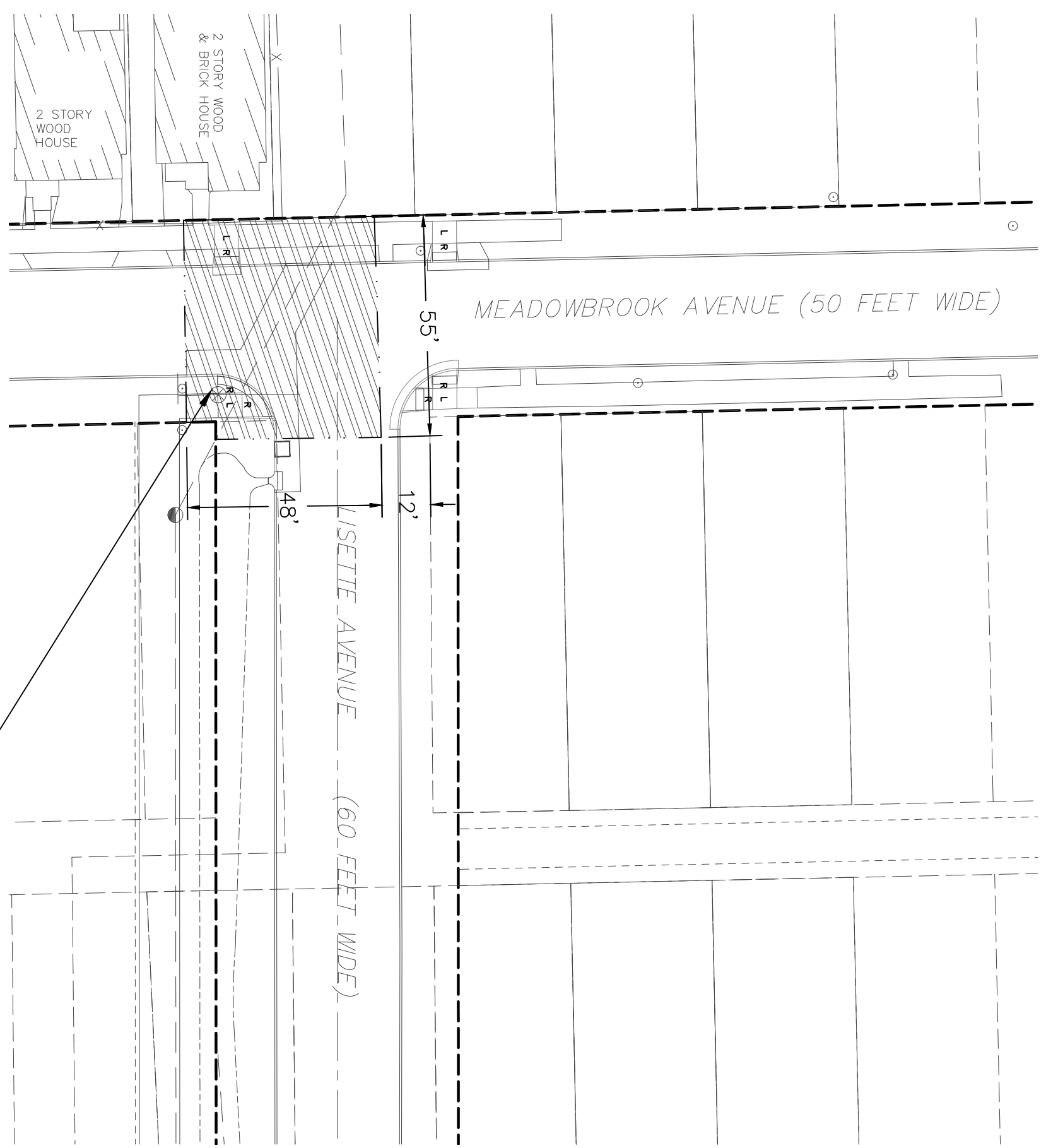
GIFFELS WEBSTER
28 W. ADAMS STE 1200
DETROIT, MICH. 48226
ATT: MICHAEL MARKS
P. 313.980.1469 F. 313.962.5068
E. MMARKS@GIFFELSWEBSTER.COM

PRIVATE STORMWATER MANAGEMENT SYSTEM ENCROACHMENT

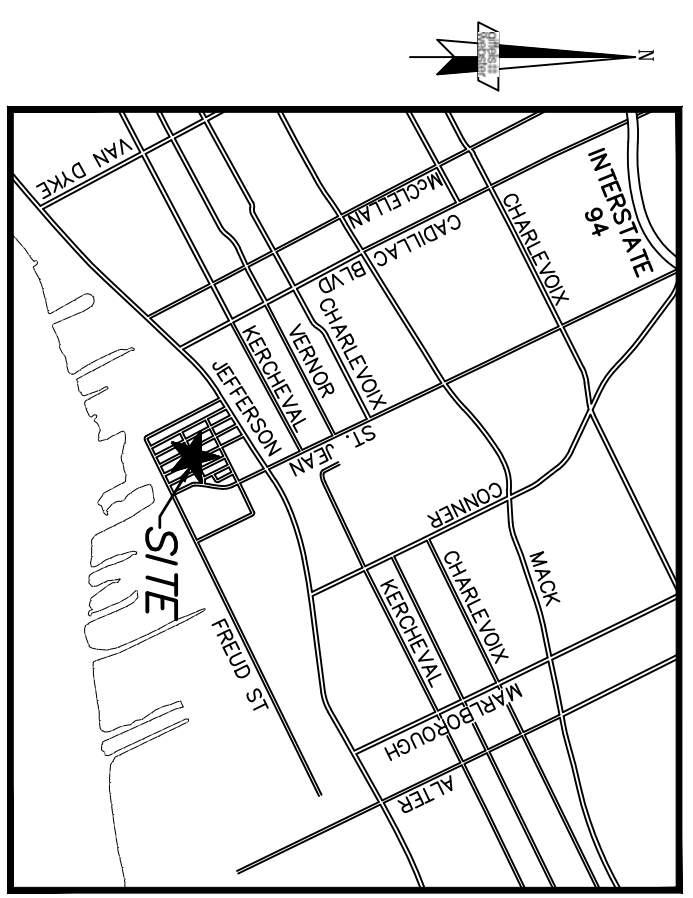
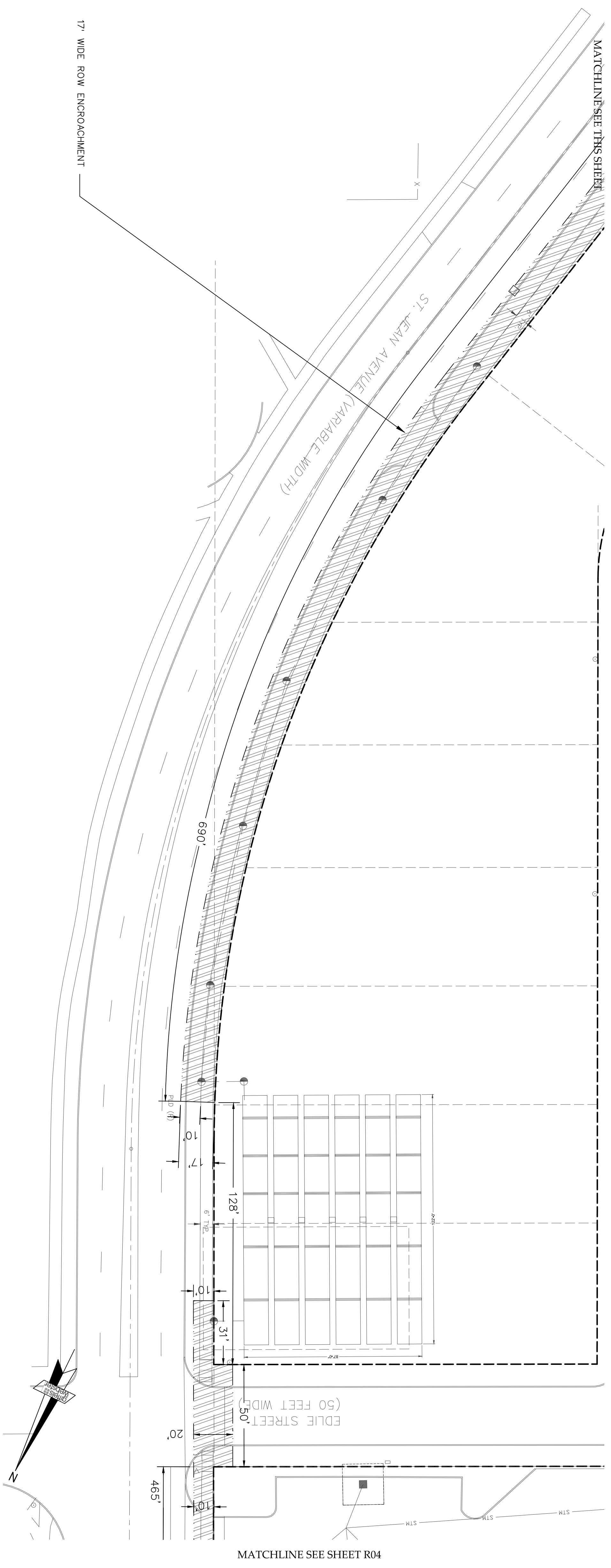
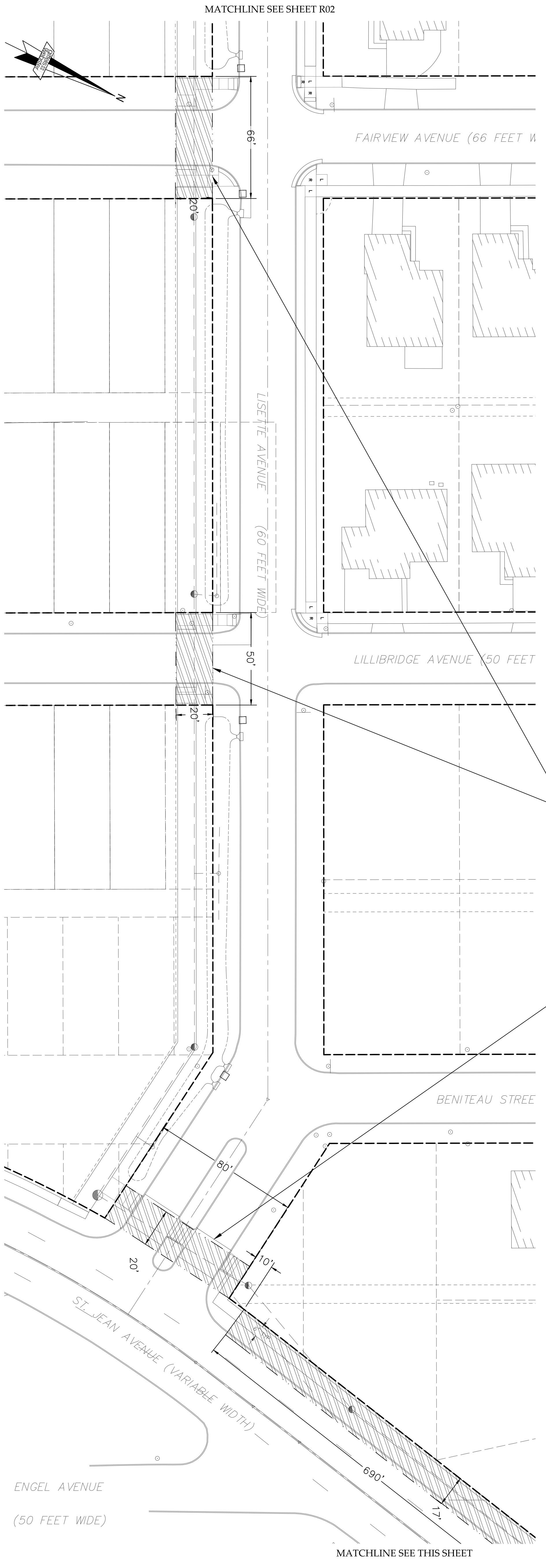


LOCATION MAP
(NOT TO SCALE)

- LEGEND:
- ROW LINE
 - ROW ENCROACHMENT
 - PROPOSED SEWER
 - PROPOSED MANHOLE

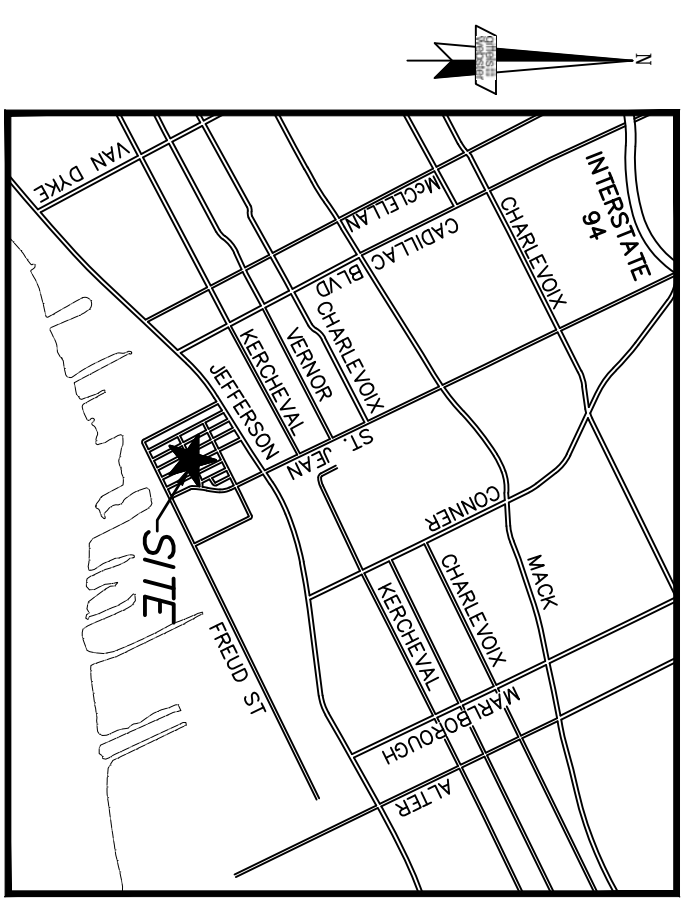
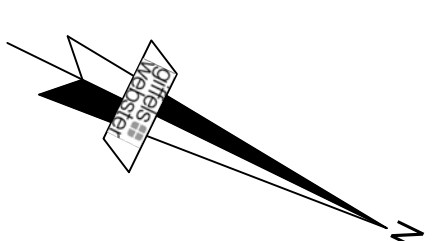
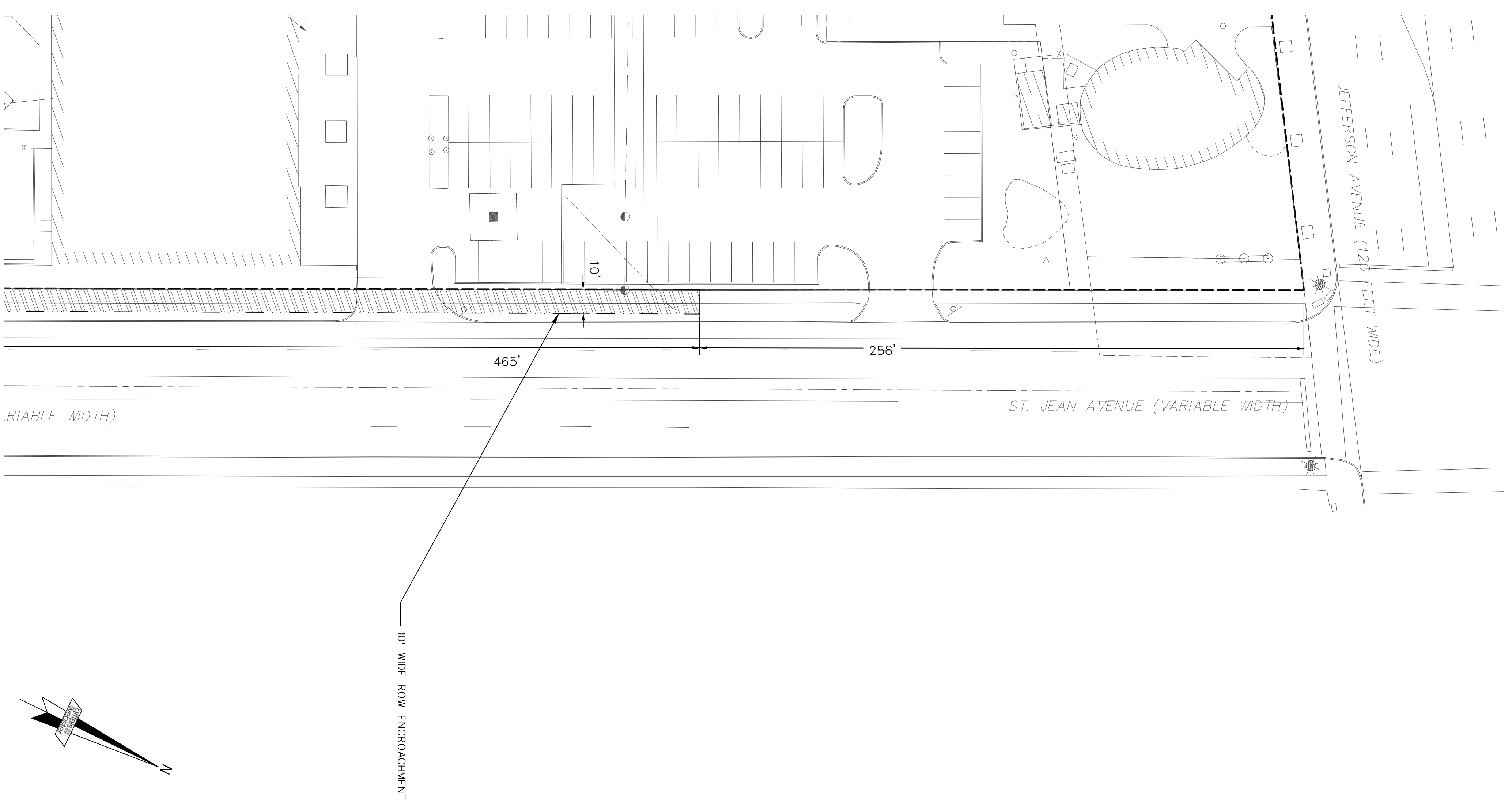
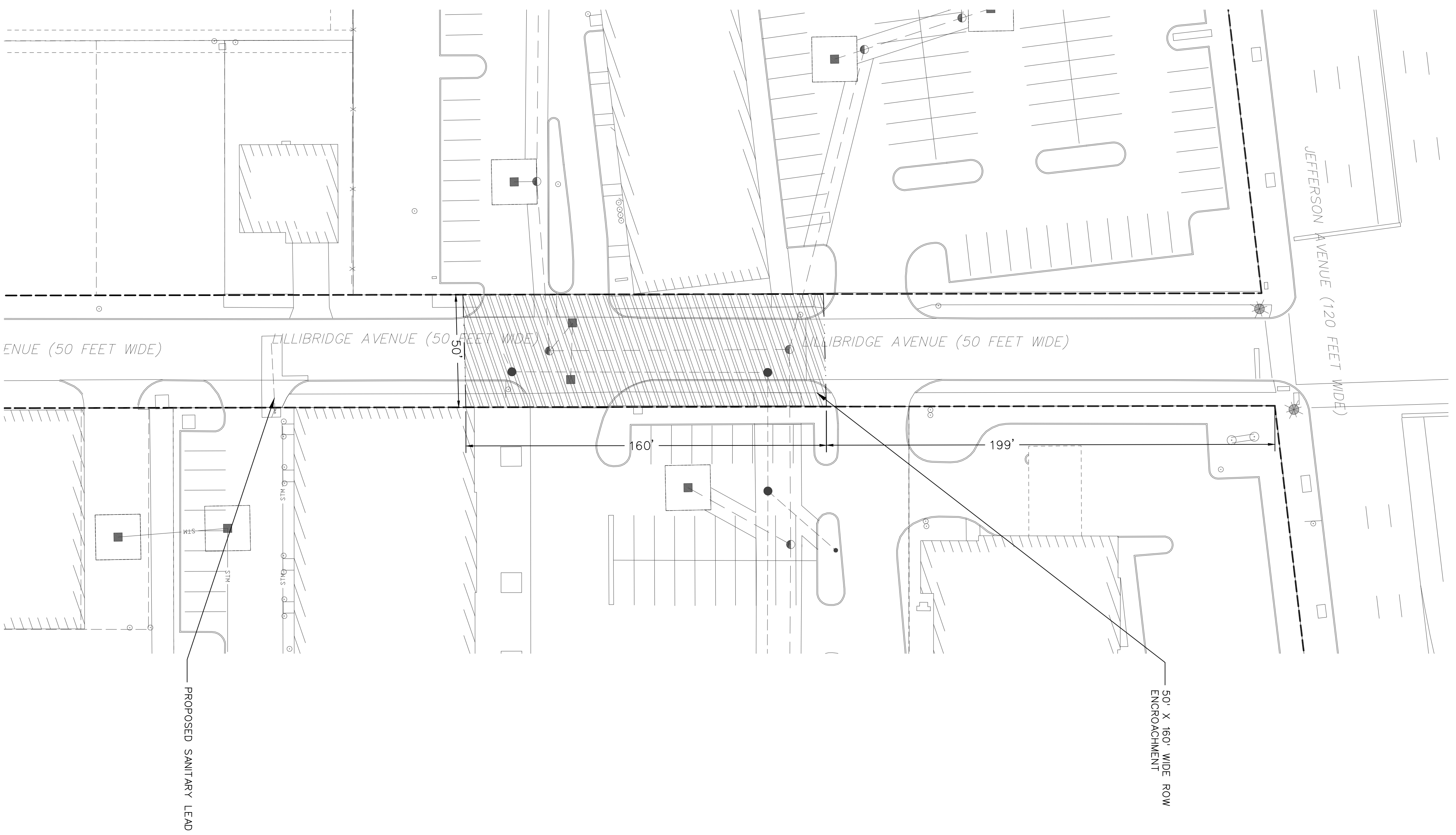


PRIVATE STORMWATER MANAGEMENT SYSTEM ENCROACHMENT



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 - PROPOSED SEWER
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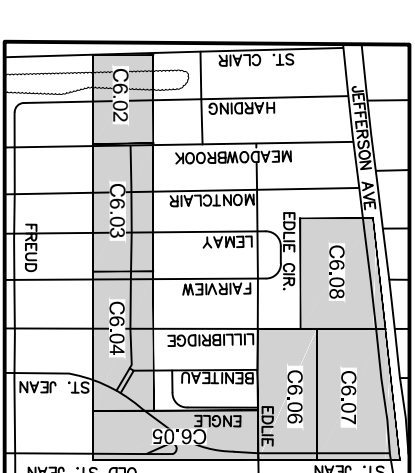
PRIVATE STORMWATER MANAGEMENT SYSTEM ENCROACHMENT



- LEGEND:
- ROW LINE
 - ROW ENCROACHMENT
 - PROPOSED SEWER
 - PROPOSED MANHOLE

Executive: STC
Manager: MMM
Designer: SLP
Quality Control: TET
Section:

Professional Seal



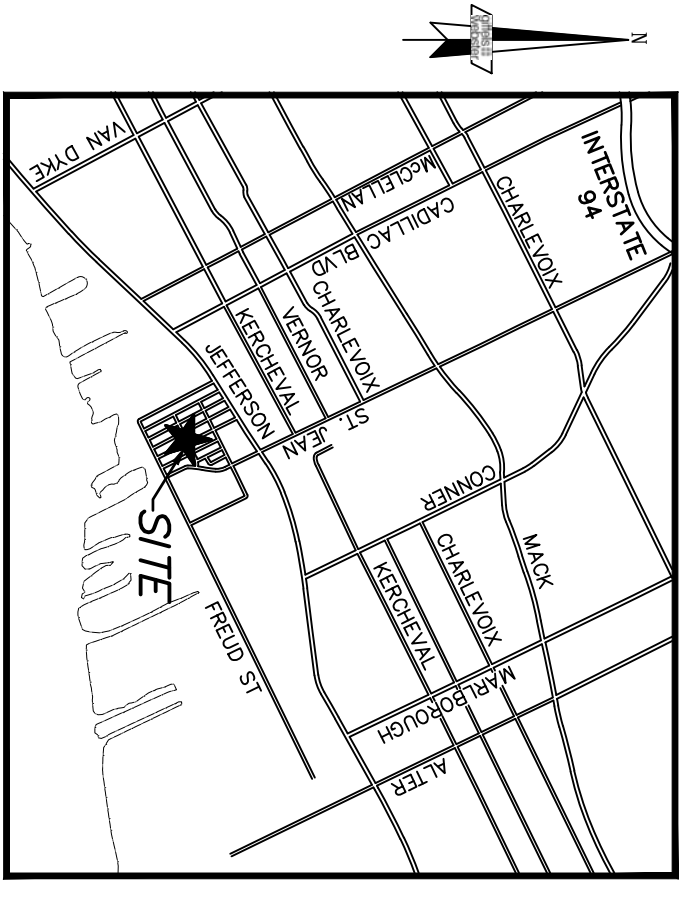
| DATE | ISSUE |
|------------|---------------------------|
| 2015-10-13 | PRELIMINARY PERMIT REVIEW |
| 2016-05-16 | DESIGN & PERMITTING |
| 2016-10-11 | DWSM & PERMITTING |
| 2017-06-27 | PERMIT REVIEW RESUBMITTAL |
| 2017-10-19 | PERMIT REVIEW RESUBMITTAL |
| 2017-10-30 | PERMIT REVIEW RESUBMITTAL |

Designed For:
Neighborhood Development Corporation
500 Griswold, Suite 2200
Detroit, MI 48226

OVERALL UTILITY PLAN

Jefferson Village Stormwater Separation Phase 1
City of Detroit
Wayne County
MICHIGAN

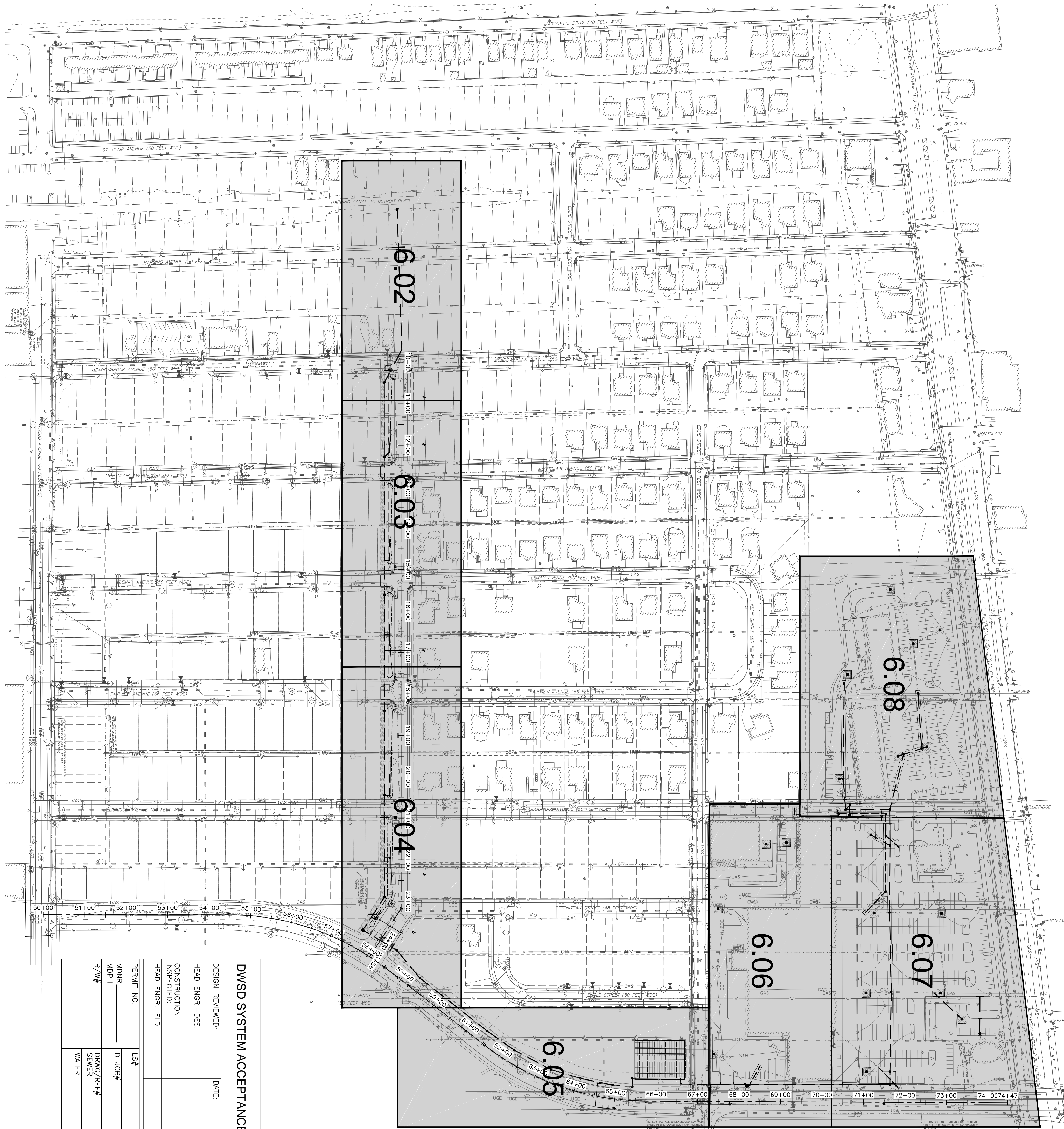
Date: 09.23.16
Scale: NTS
Sheet: 06.01
Project: 16037.410



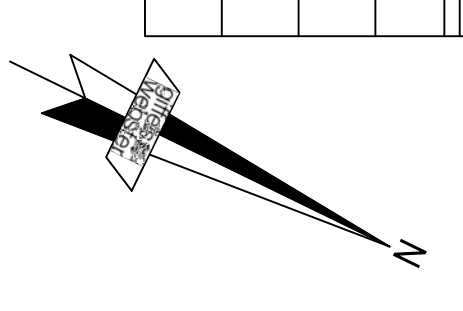
GENERAL NOTES

- A. IN COMPLIANCE WITH PUBLIC ACT 53 OF THE STATE OF MICHIGAN (EFFECTIVE) AUGUST 1, 1974, THE CONTRACTOR SHALL NOTIFY IN ADVANCE OF CONSTRUCTION (72 HOURS/3 WORKING DAYS) ALL PUBLIC AND PRIVATE UTILITY OWNERS HAVING EXISTING FACILITIES IN OR NEAR THE IMMEDIATE WORKING AREA FOR CONVENIENCE. THE KNOWN UTILITY OWNERS ARE LISTED BELOW. THIS LISTING DOES NOT, HOWEVER, RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF VERIFYING UTILITY LOCATIONS AND NOTIFYING ALL UTILITY OWNERS AND MISS DIG (PHONE: 1-800-482-7171).
- AMERITECH (313) 221-2121 COMCAST CABLE COMPANY (313) 934-1608
- DETROIT EDISON COMPANY (313) 237-9000 DETROIT PUBLIC LIGHTING DEPARTMENT (313) 224-0500
- DETROIT WATER & SEWERAGE MICHIGAN CONSOLIDATED GAS COMPANY (313) 833-8649 (313) 966-0435
- B. VERIFY EXISTING INVERT ELEVATIONS PRIOR TO START OF CONSTRUCTION.
- C. ALL SEWER WORK ON THESE DRAWINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETROIT WATER AND SEWERAGE DEPARTMENT'S LATERAL CONSTRUCTION SPECIFICATIONS, PERMIT AND INSPECTION.
- D. ALL MANHOLE AND CATCH BASIN COVERS SHALL BE BOLTED DOWN.
- E. ALL SEWER PIPE SHALL BE REINFORCED CONCRETE ASTM C76, CLASS IV.
- F. ALL WATER MAIN TO BE DUCTILE IRON CLASS 56 WITH A POLYETHYLENE WRAP IN ACCORDANCE WITH DWSM STANDARDS.
- G. ALL WATER MAINS TO BE INSTALLED WITH A MINIMUM OF 5'-0" OF COVER.
- H. CONCRETE THRUST BLOCKS SHALL BE PLACED ON ALL FITTINGS.
- I. ALL WATER MAIN WORK IS TO BE DONE IN ACCORDANCE WITH DETROIT WATER AND SEWERAGE DEPARTMENT'S STANDARD AND SPECIFICATIONS, PERMIT AND INSPECTION.
- J. ALL SEWER MANHOLES ARE TO HAVE ECCENTRIC CONES.
- K. EXISTING OUTLET SEWER INVERTS ELEVATIONS ARE TO BE FIELD VERIFIED.
- L. CONSTRUCT 4" THICK CONCRETE WALLS.
- M. CONSTRUCT 8" THICK CONCRETE APPROACHES.
- N. PROVIDE HIGH POINT AT PROPERTY LINE ACROSS DRIVES.
- O. RESTORE WALK, CURB, AND PAVEMENT TO MATCH EXISTING AFTER UTILITY CUTS.
- P. CONTRACTOR TO COORDINATE WITH P.U.D. DTE, DETROIT THERMAL, AND ALL OTHER UTILITY COMPANIES AFFECTED BY THE SEWER RELOCATION WORK. ALL MANHOLES, CABLES, DUCT BANKS, PIPES OR ANY ADDITIONAL ITEMS THAT NEED TO BE REPLACED SHOULD BE COMPLETED PER THE UTILITY COMPANY'S STANDARDS AND SPECIFICATIONS IF REQUIRED.

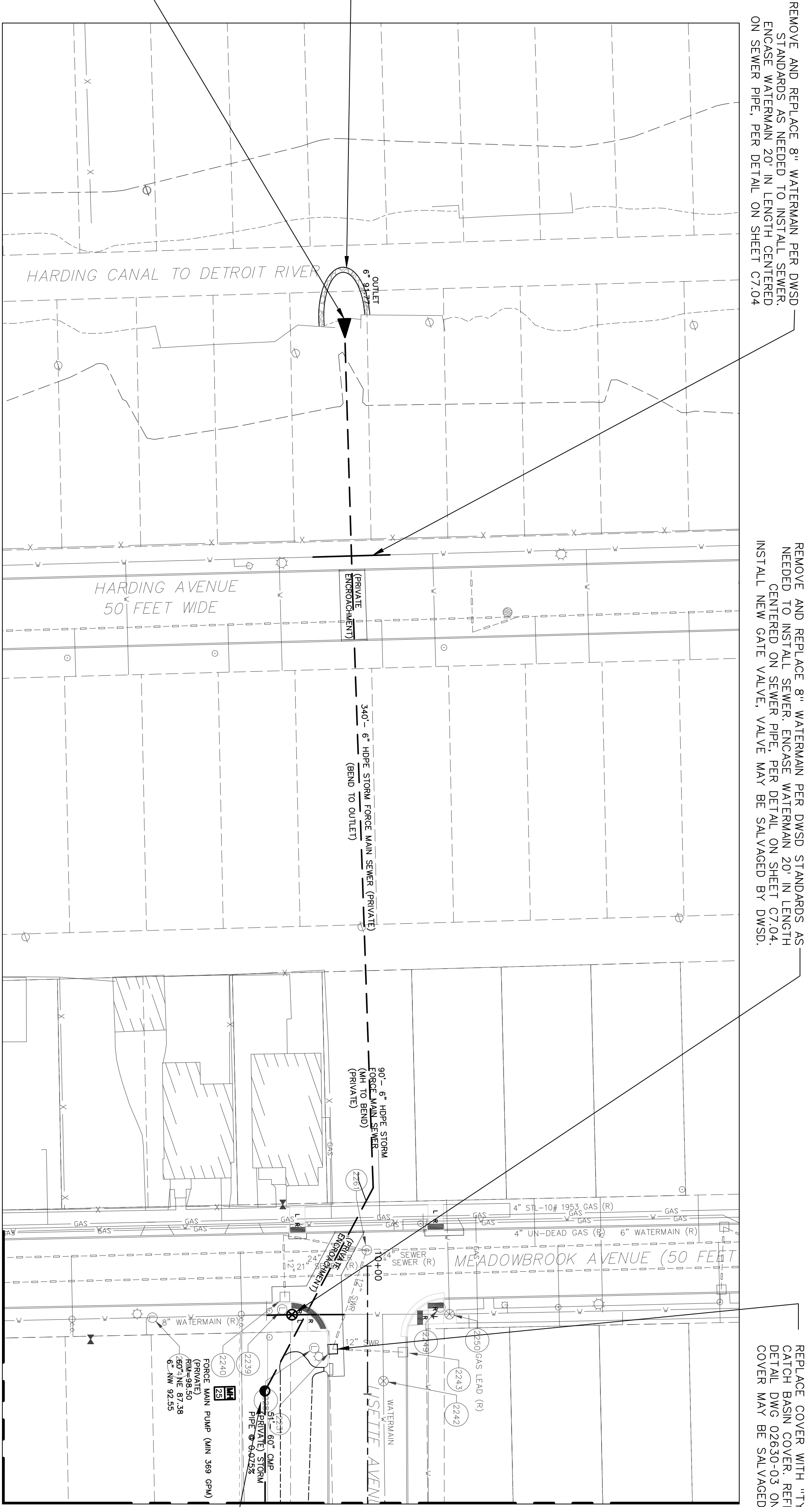
ALTERNATIVE ENGINEERING DESIGN, SEPARATE PLUMBING PERMIT REQUIRED.



| DWSD SYSTEM ACCEPTANCE | |
|-------------------------|------------|
| DESIGN REVIEWED: | DATE: |
| HEAD ENGR - DES: | |
| CONSTRUCTION INSPECTED: | |
| HEAD ENGR - FLD: | |
| PERMIT NO. | LS# |
| MDNR | D JOB# |
| MDPH | DRWG/REF # |
| R/W# | SEWER |
| | WATER |



NOTE:
WATER TABLE ELEVATION VARIES BETWEEN 12' DEEP
AND GREATER THAN 15'6", PER SOIL BORINGS DATED
11-12-2002.



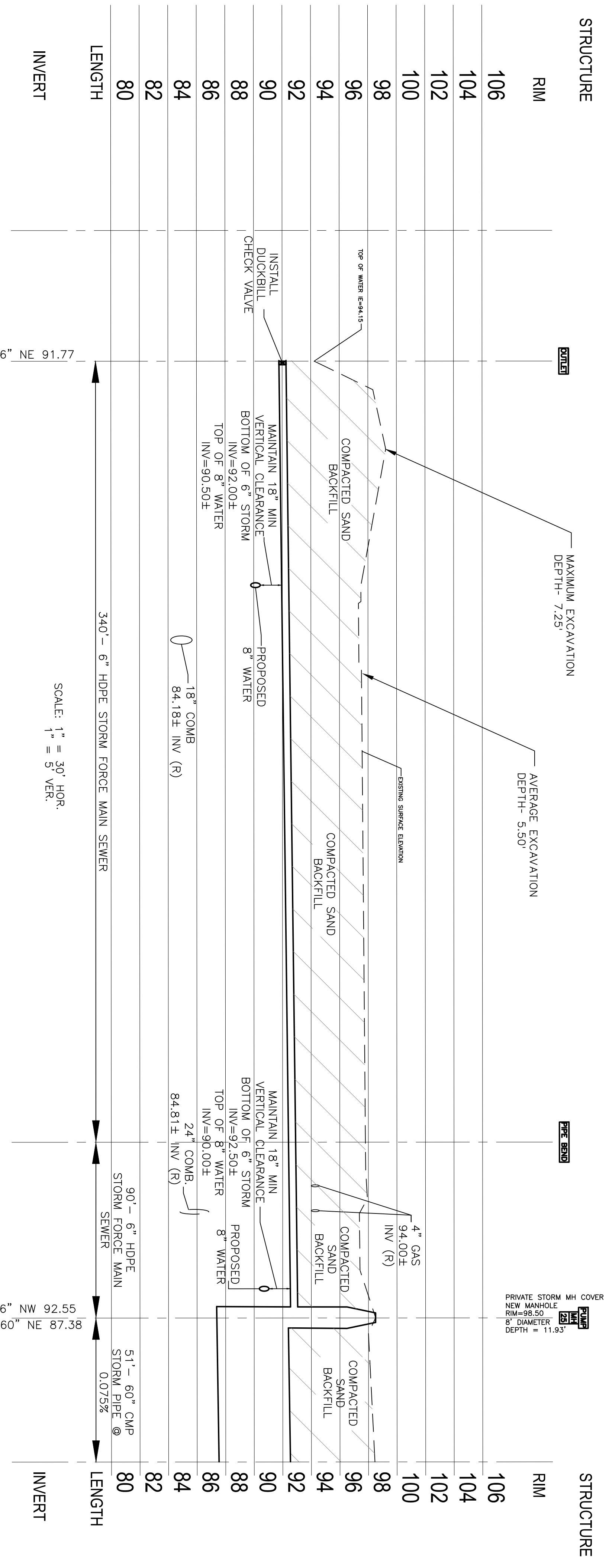
REMOVE AND REPLACE 8" WATERMAIN PER DWSO STANDARDS AS NEEDED TO INSTALL SEWER. ENCASE WATERMAIN 20' IN LENGTH CENTERED ON SEWER PIPE, PER DETAIL ON SHEET C7.04

REMOVE AND REPLACE 8" WATERMAIN PER DWSO STANDARDS AS NEEDED TO INSTALL SEWER. ENCASE WATERMAIN 20' IN LENGTH CENTERED ON SEWER PIPE, PER DETAIL ON SHEET C7.04. INSTALL NEW GATE VALVE. VALVE MAY BE SALVAGED BY DWSO.

REPLACE COVER WITH "TYPE A" THROTTLED DRAIN BASIN COVER. REFER TO DWSO2 SHEET C7.02. COVER MAY BE SALVAGED BY DWSO (TYP).

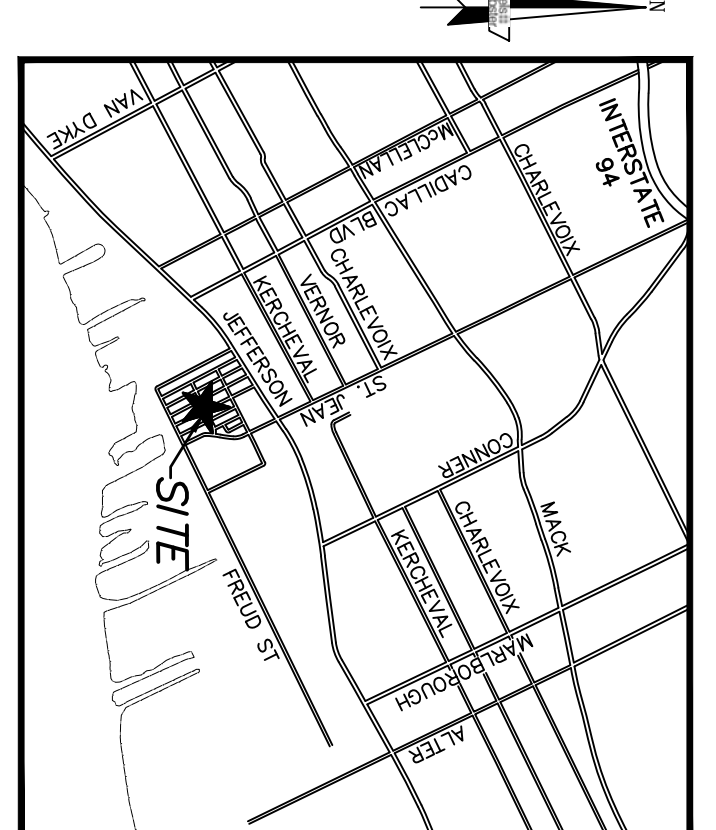
INSTALL TEMPORARY COFFERDAM AT STORM OUTLET. SEE SHEET C7.04 FOR DETAILS.

INSTALL DUCKBILL CHECK VALVE AND CONSTRUCT RIP RAP AT STORM OUTLET PER DETAILS. SEE SHEET C7.04 FOR DETAILS AND SPECIFICATIONS.



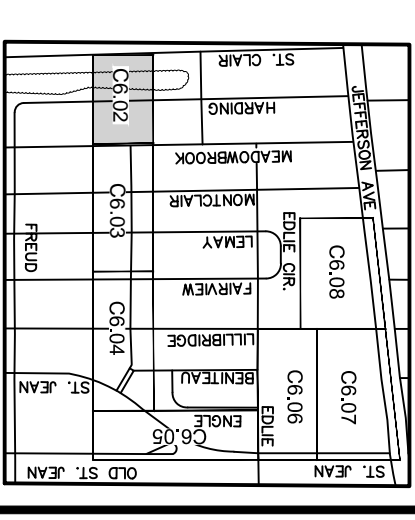
SCALE: 1" = 30' HOR
1" = 5' VER.

| What we need to pump 121,400cft (100-yr rain event): | Notes |
|--|--|
| 40 | Based on Wayne County Standards, maximum release of captured runoff must be gradually over a period of 40 hours. |
| 2,960 | cft/hr |
| 22,144 | Flow per 40 hours (35,9807/cft) |
| 369.06 | gal/hr converted to gal/min (5/60min/hr) |



ALTERNATIVE ENGINEERING DESIGN, SEPARATE PLUMBING PERMIT REQUIRED.

PUMP STATION TO BE DESIGN-BUILD BY CONTRACTOR. SEE THIS SHEET FOR PUMP CALCULATIONS.



| DATE | ISSUE |
|------------|---|
| 2015-10-13 | PRELIMINARY PERMIT REVIEW (DWSO & PLUMBING) |
| 2016-05-16 | PRELIMINARY REVIEW (DWSO & PLUMBING) |
| 2016-10-11 | PRELIMINARY REVIEW |
| 2017-06-27 | PRELIMINARY REVIEW SUBMITTAL |
| 2017-10-19 | PRELIMINARY REVIEW SUBMITTAL |
| 2017-10-30 | PRELIMINARY REVIEW RESUBMITTAL |

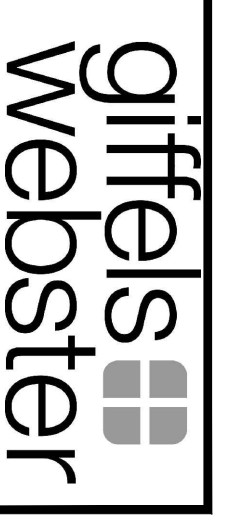
Developed For:
Neighborhood Development Corporation
500 Griswold, Suite 2200
Detroit, MI 48226

UTILITY PLAN & PROFILES

Jefferson Village Stormwater Separation Phase 1

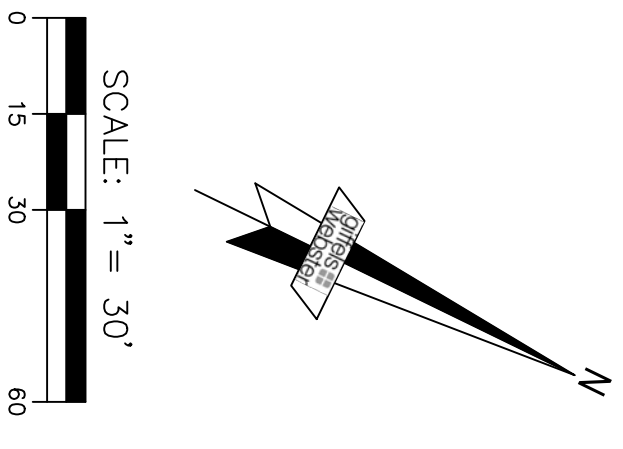
City of Detroit
Wayne County
MICHIGAN

| | |
|----------|-----------|
| Date: | 09.23.16 |
| Scale: | 1" = 30' |
| Sheet: | CG.02 |
| Project: | 16037.410 |



Engineers
Surveyors
Planners
Landscape Architects
Environmental Specialists
28 W. Adams Street
Suite 1200
Detroit, MI 48226
p (313) 962-4442
f (313) 962-5088
www.giffelswebster.com

Professional Seal
Engineer: STC
Manager: MWM
Designer: SLP
Quality Control: TET
Section:



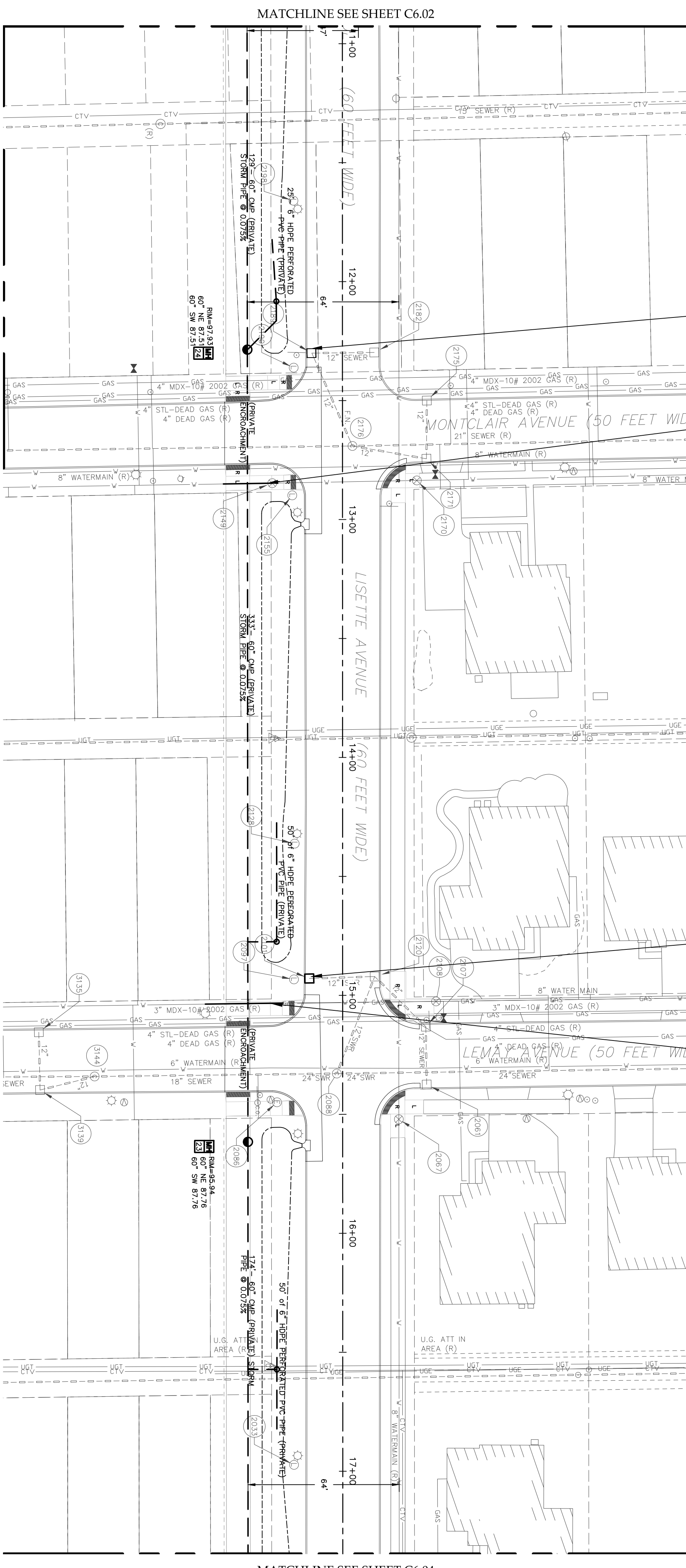
NOTE:
WATER TABLE ELEVATION VARIES BETWEEN 12' DEEP
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11-12-2002.

REMOVE AND REPLACE 8" WATERMAIN PER
DWSO STANDARDS AS NEEDED TO INSTALL
SEWER. ENCASE WATERMAIN 20" IN LENGTH
CENTERED ON SEWER PIPE. PER DETAIL ON
SHEET C7.04.

REPLACE COVER WITH "TYPE A" THROTTLED
CATCH BASIN COVER. REFER TO DWSO
DETAIL DWG 02630-03 ON SHEET C7.02.

REPLACE COVER WITH "TYPE A" THROTTLED
CATCH BASIN COVER. REFER TO DWSO
DETAIL DWG 02630-03 ON SHEET C7.02.

REMOVE AND REPLACE 8" WATERMAIN PER DWSO STANDARDS
AS NEEDED TO INSTALL SEWER. ENCASE WATERMAIN 20" IN
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C7.04.



STRUCTURE

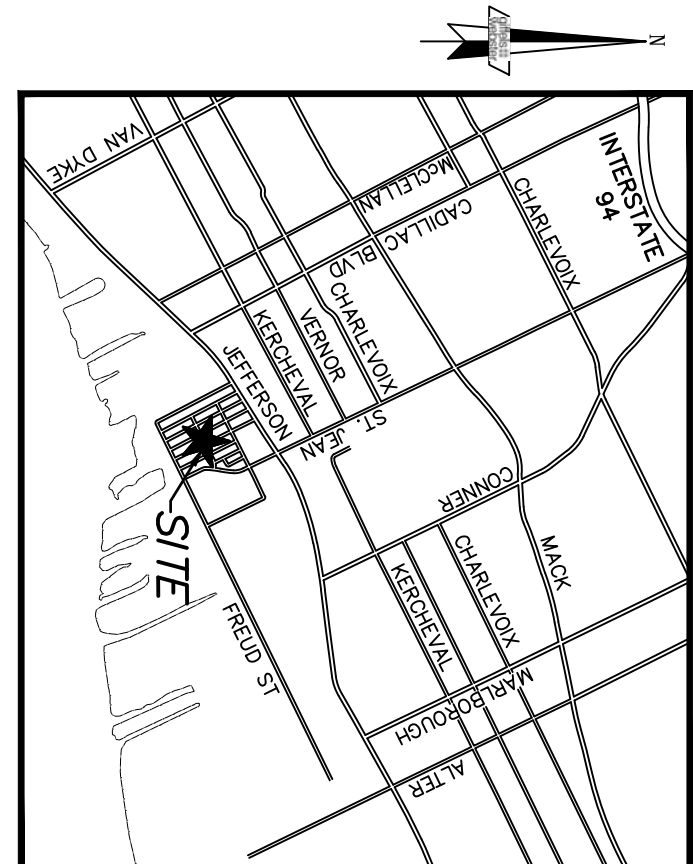
| RM | LENGTH | INVERT |
|-----|--|------------------------------|
| 106 | 129'-60" CMP STORM PIPE @ 0.075% | 60" SW 87.51 60" NE 87.51 |
| 104 | 333'-60" CMP STORM PIPE @ 0.075% | 60" SW 87.76 60" NE 87.76 |
| 102 | 174'-60" CMP STORM PIPE @ 0.075% | 60" SW 87.76 60" NE 87.76 |
| 100 | 27" COMB 82.52± INV. (R) | |
| 98 | MAINTAIN 18" MIN VERTICAL CLEARANCE BOTTOM OF 60" STORM INV=87.50± PROPOSED TOP OF 8" WATER INV=86.00± | |
| 96 | 18" COMB 84.75± INV. (R) | |
| 94 | MAINTAIN 18" MIN VERTICAL CLEARANCE BOTTOM OF 60" STORM INV=87.70± PROPOSED TOP OF 8" WATER INV=86.20± | |
| 92 | 4" GAS 92.50± INV. (R) | |
| 90 | 4" GAS 94.75± INV. (R) | |
| 88 | 4" GAS 97.50± INV. (R) | |
| 86 | 4" GAS 94.75± INV. (R) | |
| 84 | 4" GAS 92.50± INV. (R) | |
| 82 | 4" GAS 94.75± INV. (R) | |
| 80 | 4" GAS 97.50± INV. (R) | |

SCALE: 1" = 30' HOR
1" = 3' VER.

STRUCTURE

| RM | LENGTH | INVERT |
|-----|--|------------------------------|
| 106 | 129'-60" CMP STORM PIPE @ 0.075% | 60" SW 87.51 60" NE 87.51 |
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SCALE: 1" = 30'
1" = 3' VER.



ALTERNATIVE ENGINEERING DESIGN, SEPARATE
PLUMBING PERMIT REQUIRED.

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| | |
|------------------|-----|
| Engineer: | STC |
| Manager: | MMM |
| Designer: | SJP |
| Quality Control: | TEI |
| Section: | |



| DATE | ISSUE |
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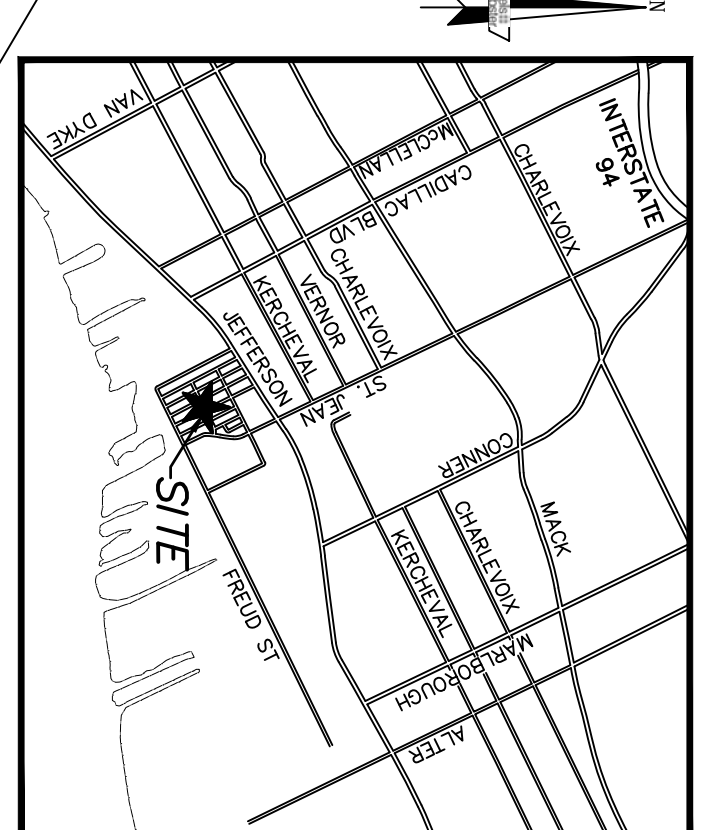
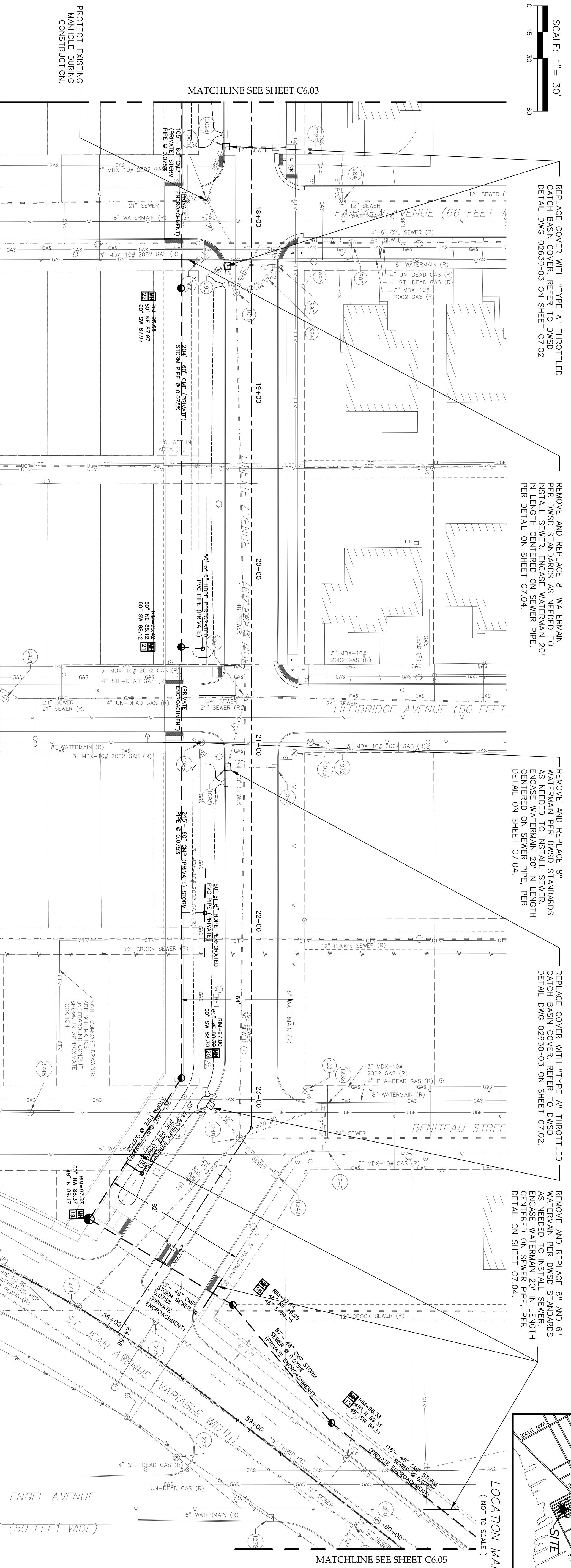
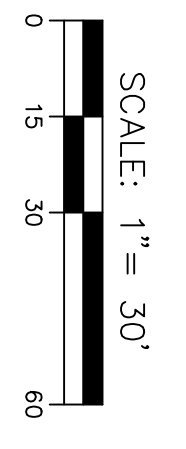
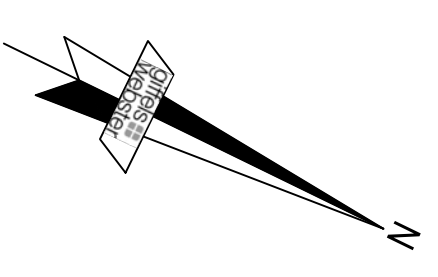
UTILITY PLAN & PROFILES

Jefferson Village Stormwater Separation Phase 1
City of Detroit
Wayne County
MICHIGAN

| | |
|----------|-----------|
| Date: | 09.23.16 |
| Scale: | 1" = 30' |
| Sheet: | C6.03 |
| Project: | 16037.410 |

NOTE: WATER TABLE ELEVATION VARIES BETWEEN 12' DEEP AND GREATER THAN 15.6', PER SOIL BORINGS DATED 11-12-2002.

ALTERNATIVE ENGINEERING DESIGN, SEPARATE PLUMBING PERMIT REQUIRED.



| STRUCTURE | RIM | LENGTH | INVERT |
|-----------|-----|--------|--------|
| 80 | 82 | 84 | 86 |
| 88 | 90 | 92 | 94 |
| 96 | 98 | 100 | 102 |
| 104 | 106 | | |

| STRUCTURE | RIM | LENGTH | INVERT |
|-----------|-----|--------|--------|
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| 96 | 98 | 100 | 102 |
| 104 | 106 | | |

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UTILITY PLAN & PROFILES

Jefferson Village Stormwater Separation Phase 1
 Wayne County
 MICHIGAN

City of Detroit
 Wayne County
 MICHIGAN

Date: 09.23.16
 Scale: 1" = 30'
 Sheet: 06.04
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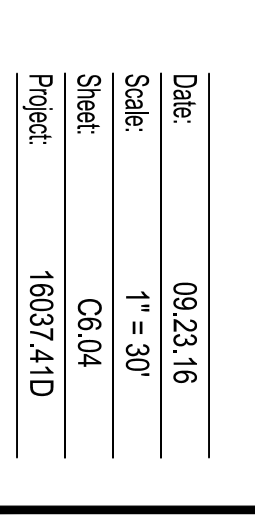
giffels webster

Engineers
 Surveyors
 Planners
 Landscape Architects
 Environmental Scientists

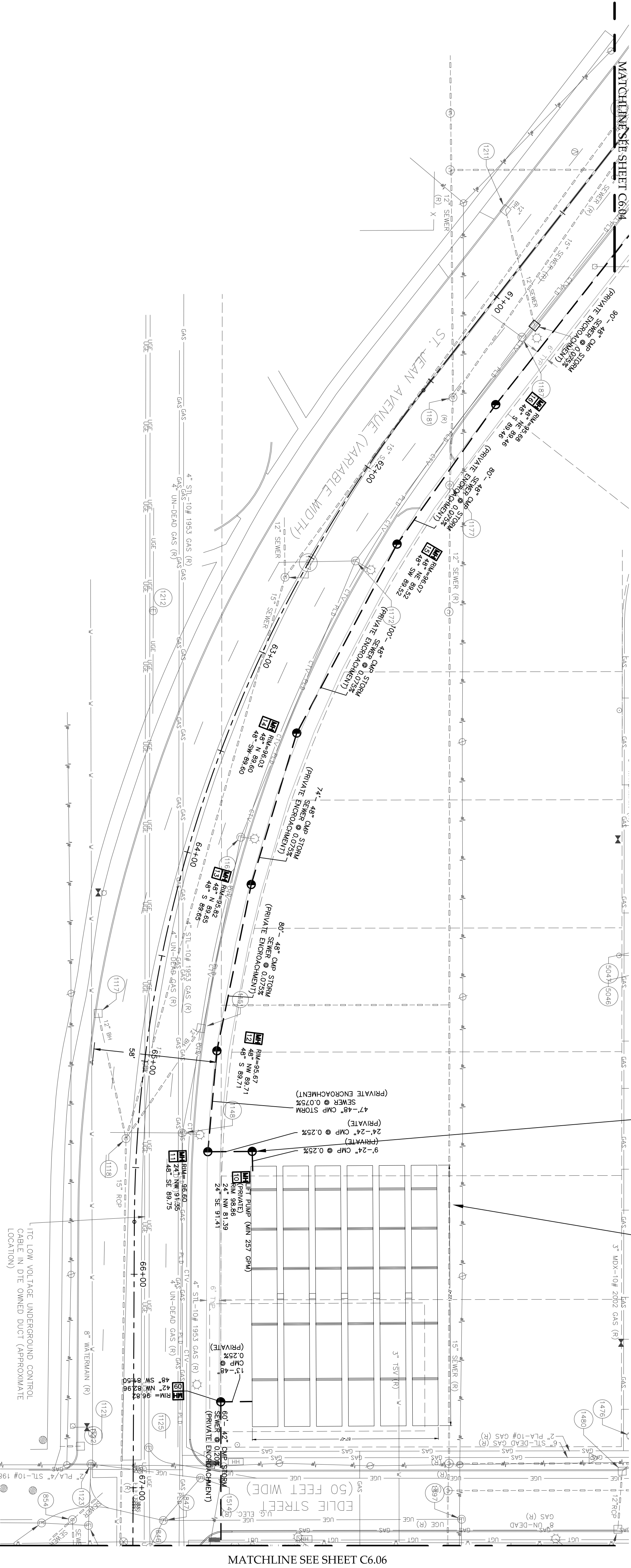
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Professional Seal

Engineer: STC
 Manager: MWM
 Designer: SLP
 Quality Control: TET
 Section:



NOTE: WATER ELEVATION VARIES BETWEEN 12' DEEP AND GREATER THAN 15'6", PER SOIL BORINGS DATED 11-12-2002.



What we need to pump 82,420cft (10.5' yr rain event):

| Notes | hours | cft/hr | gal/hr converted to gal/min (gal/hr / 60min/hr) |
|--|-------|--------|---|
| Based on Wayne County Standards, maximum release of captured runoff must be gradually over a period of 40 hours. | 40 | 2,061 | 255.91 |
| Flow per 40 hours (82,420cft/40 hours) | | 2,061 | |
| Flow per 40 hours converted to gal/hr converted to gal/min (gal/hr / 60min/hr) | | 2,061 | 255.91 |

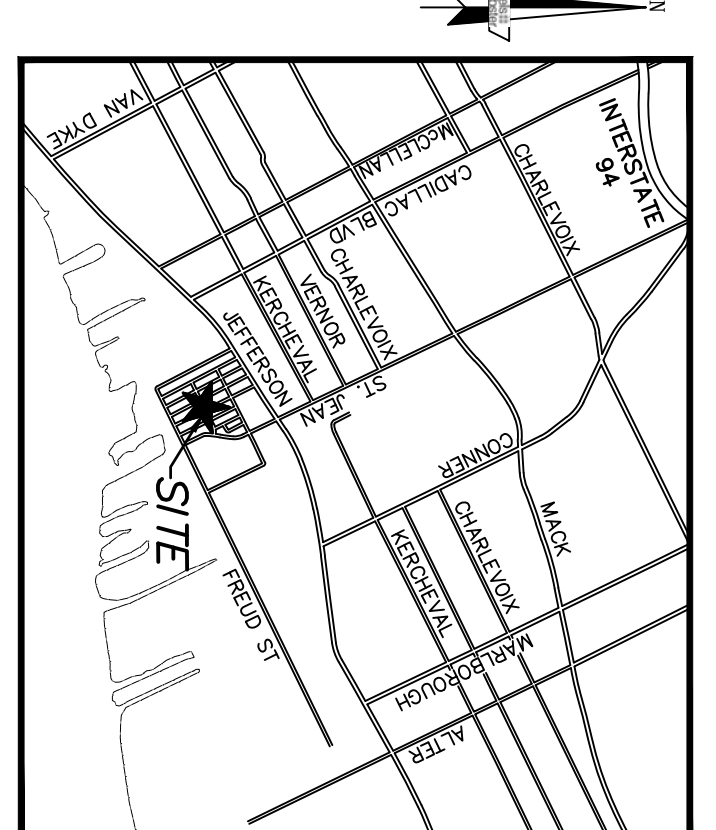
SEE SHEET C7.03 FOR UNDERGROUND STORMWATER STORAGE DETAILS.

PUMP STATION TO BE DESIGN-BUILD BY CONTRACTOR. SEE THIS SHEET FOR PUMP CALCULATIONS.

SEE SHEET C7.03 FOR UNDERGROUND STORMWATER STORAGE DETAILS.

| STRUCTURE | RIM | INVERT | LENGTH |
|--|-------|--------|--------|
| PRIVATE STORM MH COVER NEW MANHOLE RIM=95.68 6" DIAMETER DEPTH = 6.22 | 95.68 | 89.46 | |
| PRIVATE STORM MH COVER NEW MANHOLE RIM=95.07 6" DIAMETER DEPTH = 6.55 | 95.07 | 89.52 | |
| PRIVATE STORM MH COVER NEW MANHOLE RIM=96.03 6" DIAMETER DEPTH = 6.43 | 96.03 | 89.60 | |
| PRIVATE STORM MH COVER NEW MANHOLE RIM=95.67 6" DIAMETER DEPTH = 6.17 | 95.67 | 89.65 | |
| PRIVATE STORM MH COVER NEW MANHOLE RIM=95.67 6" DIAMETER DEPTH = 5.96 | 95.67 | 89.71 | |
| PRIVATE STORM MH COVER NEW MANHOLE RIM=95.67 6" DIAMETER DEPTH = 6.85 | 95.67 | 91.35 | |
| PRIVATE STORM MH COVER NEW MANHOLE RIM=96.86 8" DIAMETER DEPTH = 16.73 | 96.86 | 91.41 | |
| PRIVATE STORM MH COVER NEW MANHOLE RIM=96.65 8" DIAMETER DEPTH = 13.46 | 96.65 | 81.50 | |

| STRUCTURE | RIM | INVERT | LENGTH |
|-----------------------------------|-----|--------|--------|
| 90'-48" CMP STORM SEWER @ 0.075% | 90 | 89.46 | |
| 80'-48" CMP STORM SEWER @ 0.075% | 80 | 89.52 | |
| 100'-48" CMP STORM SEWER @ 0.075% | 100 | 89.60 | |
| 74'-48" CMP STORM SEWER @ 0.075% | 74 | 89.65 | |
| 80'-48" CMP STORM SEWER @ 0.075% | 80 | 89.65 | |
| 47'-48" CMP STORM SEWER @ 0.075% | 47 | 89.71 | |
| 24'-24" CMP @ 0.25% | 24 | 91.35 | |
| 24'-24" CMP @ 0.25% | 24 | 91.41 | |
| 60'-42" CMP @ 0.20% | 60 | 81.50 | |



ALTERNATIVE ENGINEERING DESIGN, SEPARATE PLUMBING PERMIT REQUIRED.

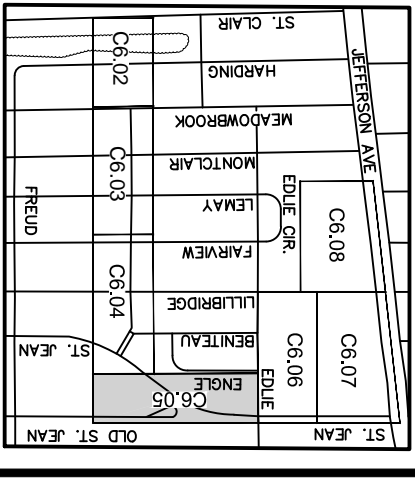
LOCATION MAP (NOT TO SCALE)

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| DATE | ISSUE |
|------------|------------------------------|
| 2015-10-13 | PRELIMINARY PERMIT REVIEW |
| 2016-05-16 | ISSUE # 1 PLUMBING |
| 2016-10-11 | ISSUE # 2 PLUMBING |
| 2017-06-27 | PRELIMINARY REVIEW SUBMITTAL |
| 2017-10-19 | PRELIMINARY REVIEW SUBMITTAL |
| 2017-11-30 | PRELIMINARY REVIEW SUBMITTAL |

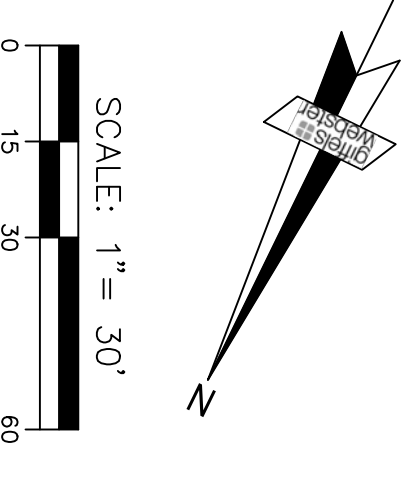
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UTILITY PLAN & PROFILES

Jefferson Village Stormwater Separation Phase 1

| | |
|----------|-----------|
| Date: | 09.23.16 |
| Scale: | 1" = 30' |
| Sheet: | 06.05 |
| Project: | 16037/410 |

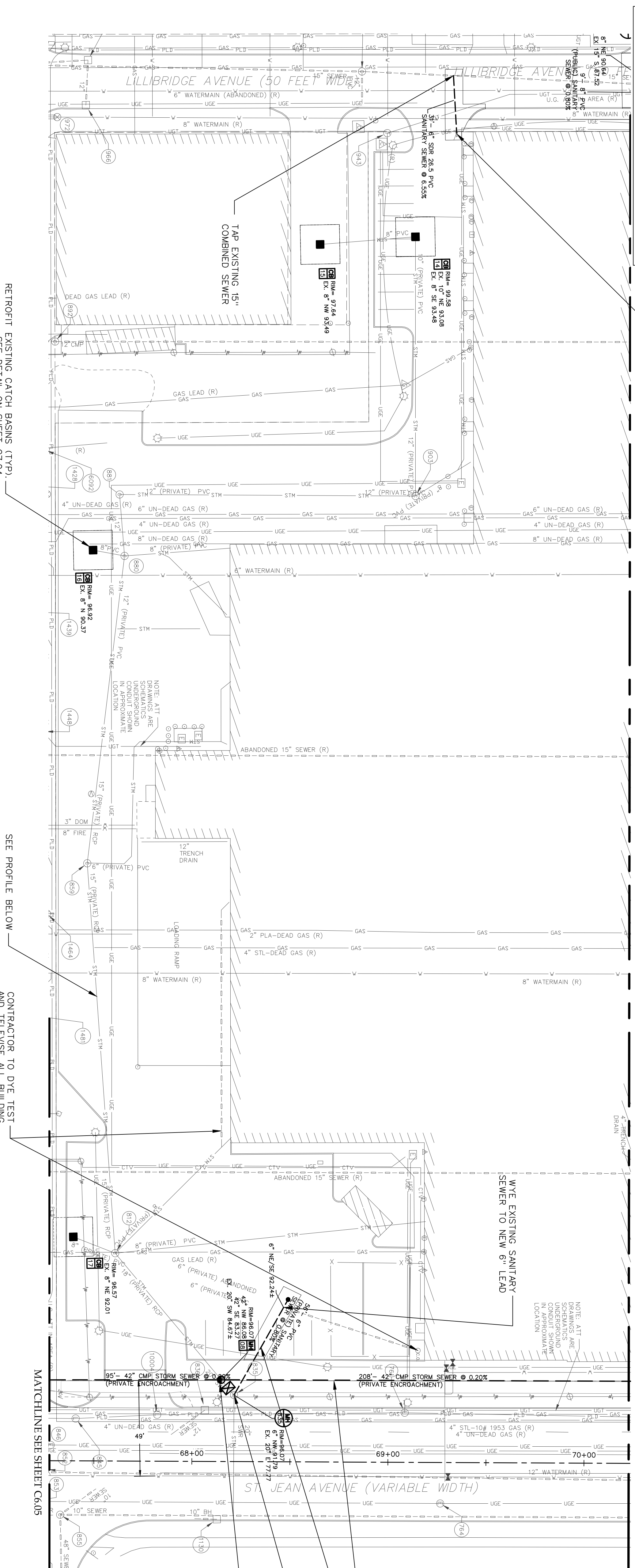


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NOTE: WATER TABLE ELEVATION VARIES BETWEEN 12' DEEP AND GREATER THAN 15'6", PER SOIL BORINGS DATED 11-12-2002.

INTERCEPT EXISTING SANITARY LATERAL AND CONNECT TO EXISTING 15" COMBINED SEWER. SEE BELOW FOR PROFILE VIEW.

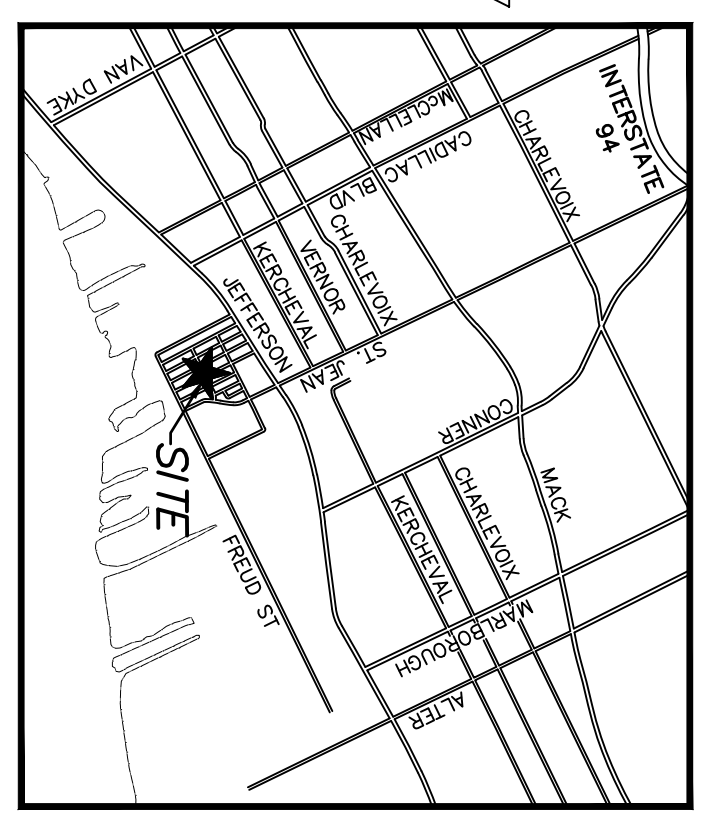
MATCHLINE SEE SHEET C6.07



RETROFIT EXISTING CATCH BASINS (TYP) SEE DETAIL ON SHEET C7.04.

SEE PROFILE BELOW CONTRACTOR TO DYE TEST AND TELEWISE ALL BUILDING LEADS TO CONFIRM SEPARATION (TYP ALL)

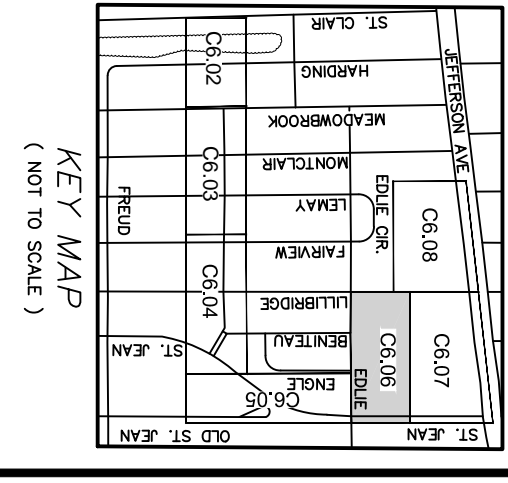
MATCHLINE SEE SHEET C6.05



ALTERNATIVE ENGINEERING DESIGN, SEPARATE PLUMBING PERMIT REQUIRED.

SEE SHEET C6.10 FOR PROFILE VIEW.
SEE SHEET C6.11 FOR PROFILE VIEW.

PROTECT EXISTING MH, BULKHEAD 18"/20" SEWER TO SOUTHWEST, TAP WITH NEW 6" SANITARY TO NORTHWEST. CONVERT MH TO ACCEPT SANITARY FLOWS ONLY. CONSTRUCT NEW MANHOLE AND SEWER OVER EXISTING 18" SEWER.



KEY MAP (NOT TO SCALE)

| DATE | ISSUE |
|------------|---|
| 2015-10-13 | PRELIMINARY PERMIT REVIEW (DMS) & FLOWING |
| 2016-05-16 | PRELIMINARY PERMIT REVIEW (DMS) & FLOWING |
| 2016-10-11 | PRELIMINARY PERMIT REVIEW |
| 2017-06-27 | PRELIMINARY PERMIT REVIEW |
| 2017-10-19 | PRELIMINARY PERMIT REVIEW |
| 2017-10-30 | PRELIMINARY PERMIT REVIEW |

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UTILITY PLAN & PROFILES

Jefferson Village Stormwater Separation Phase 1

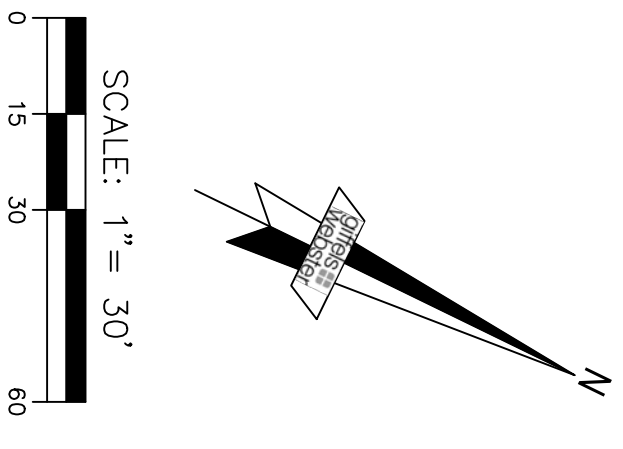
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|----------|-----------|
| Date: | 09.23.16 |
| Scale: | 1" = 30' |
| Sheet: | C6.06 |
| Project: | 16037.410 |

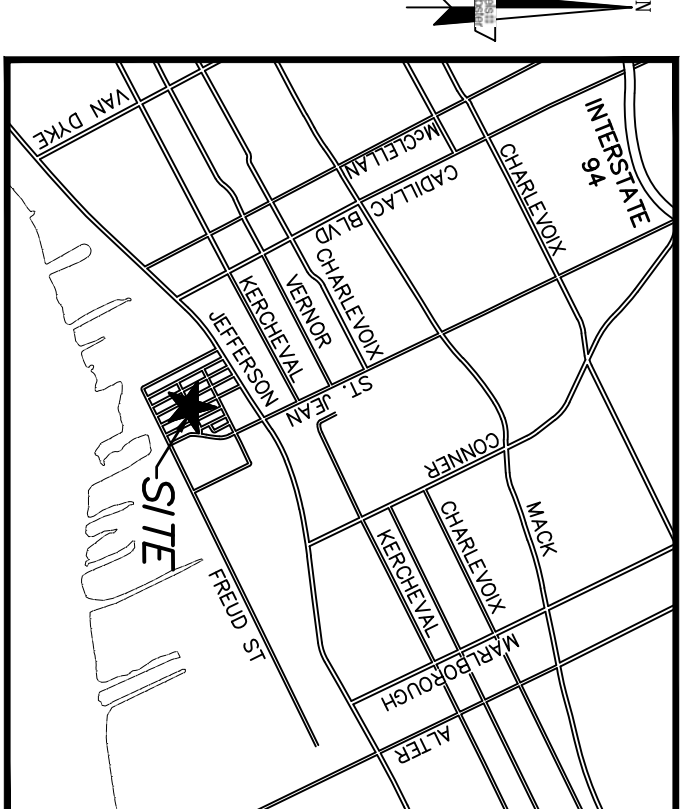
STRUCTURE

| RIM | INVERT | LENGTH |
|-----|--|---|
| 102 | EX 15" NW/SE 86.90 EX 6" NE 87.50 | 5'-6" SDR PVC SANITARY SEWER @ 6.55% |
| 100 | EX 12" SW 94.63 | 26'-6" SDR PVC SANITARY SEWER @ 6.55% |
| 98 | EX 8" SE 93.48 EX 10" NE 93.08 EX 6" NW 93.49 | 6" WATERMAIN (R) 96.00± INV (R) MAINTAIN 18" MIN. VERTICAL CLEARANCE 45' BEND, CONNECT SANITARY SEWER TO EXISTING 15" |
| 96 | EX 8" NW 95.40 EX 10" SW 92.20 EX 12" SE 91.95 | 6" WATERMAIN (R) 96.00± INV (R) |
| 94 | EX 12" NW 91.11 EX 12" NE 91.01 | 4" GAS 92.85± INV (R) |
| 92 | EX 12" NE 91.08 EX 8" N 92.89 EX 12" S 90.99 EX 12" SW 90.39 EX 12" NE 90.39 | 4" GAS 92.85± INV (R) 3" WATER 96.25± INV (R) 8" WATER 96.25± INV (R) UNDERGROUND UNDERGROUND ELECTRIC WIRES 93.85± INV (R) |
| 90 | EX 6" NW 90.61 EX 12" SW 89.26 EX 15" NE 89.21 | 4" GAS 92.85± INV (R) |
| 88 | EX 8" N 92.43 EX 6" N 91.18 EX 8" W 88.98 EX 8" S 92.01 EX 15" SW 86.28 EX 18" NE 86.23 | 4" GAS 92.85± INV (R) |
| 86 | EX 18" SW 84.67 EX 42" SE 83.27 EX 42" NW 86.17 | 4" GAS 92.85± INV (R) |
| 84 | | |
| 82 | | |
| 80 | | |
| 78 | | |
| 76 | | |

SCALE: 1" = 30' HOR.
1" = 3' VER.



NOTE:
WATER TABLE ELEVATION VARIES BETWEEN 12' DEEP
AND GREATER THAN 15'6", PER SOIL BORINGS DATED
11-12-2002.



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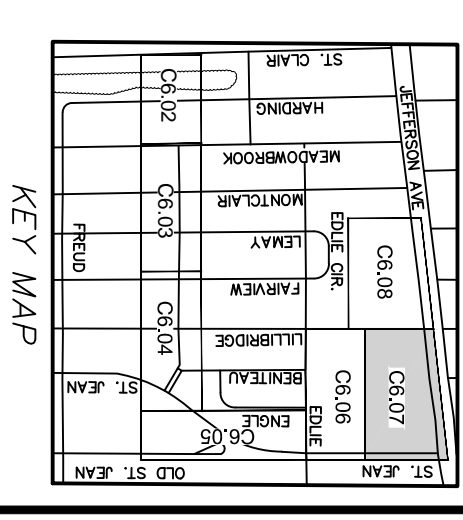
ALTERNATIVE ENGINEERING DESIGN, SEPARATE
PLUMBING PERMIT REQUIRED.

CONSTRUCT NEW MANHOLE AND SEWER
ON EXISTING 8" PVC SEWER. CONNECT
TO EXISTING 8" SANITARY SEWER VIA
BLIND TAP. SEE SHEET C6.11 FOR
PROFILE VIEW.

CONNECT PROPOSED 8" HDPE STORM
SEWER TO EXISTING 8" STORM SEWER
VIA BLIND TAP. SEE SHEET C6.11 FOR
PROFILE VIEW.

PROTECT EXISTING MH. TAP EXISTING
MANHOLE WITH PROPOSED 6" SANITARY
SEWER TO SOUTHWEST. BULKHEAD
EXISTING 15" SEWER TO SOUTHWEST.
CONVERT MH TO ACCEPT SANITARY
FLOWS ONLY.

SEE SHEET C6.10 FOR PROFILE VIEWS.



| DATE | ISSUE |
|------------|--|
| 2015-10-13 | PRELIMINARY PERMIT REVIEW DMSV & PLUMBING |
| 2016-05-16 | DMSV & PLUMBING |
| 2016-10-11 | DMSV & PLUMBING |
| 2017-06-27 | PERMIT REVIEW RESUBMITTAL |
| 2017-10-10 | PERMIT REVIEW RESUBMITTAL |
| 2017-10-30 | PERMIT REVIEW RESUBMITTAL |

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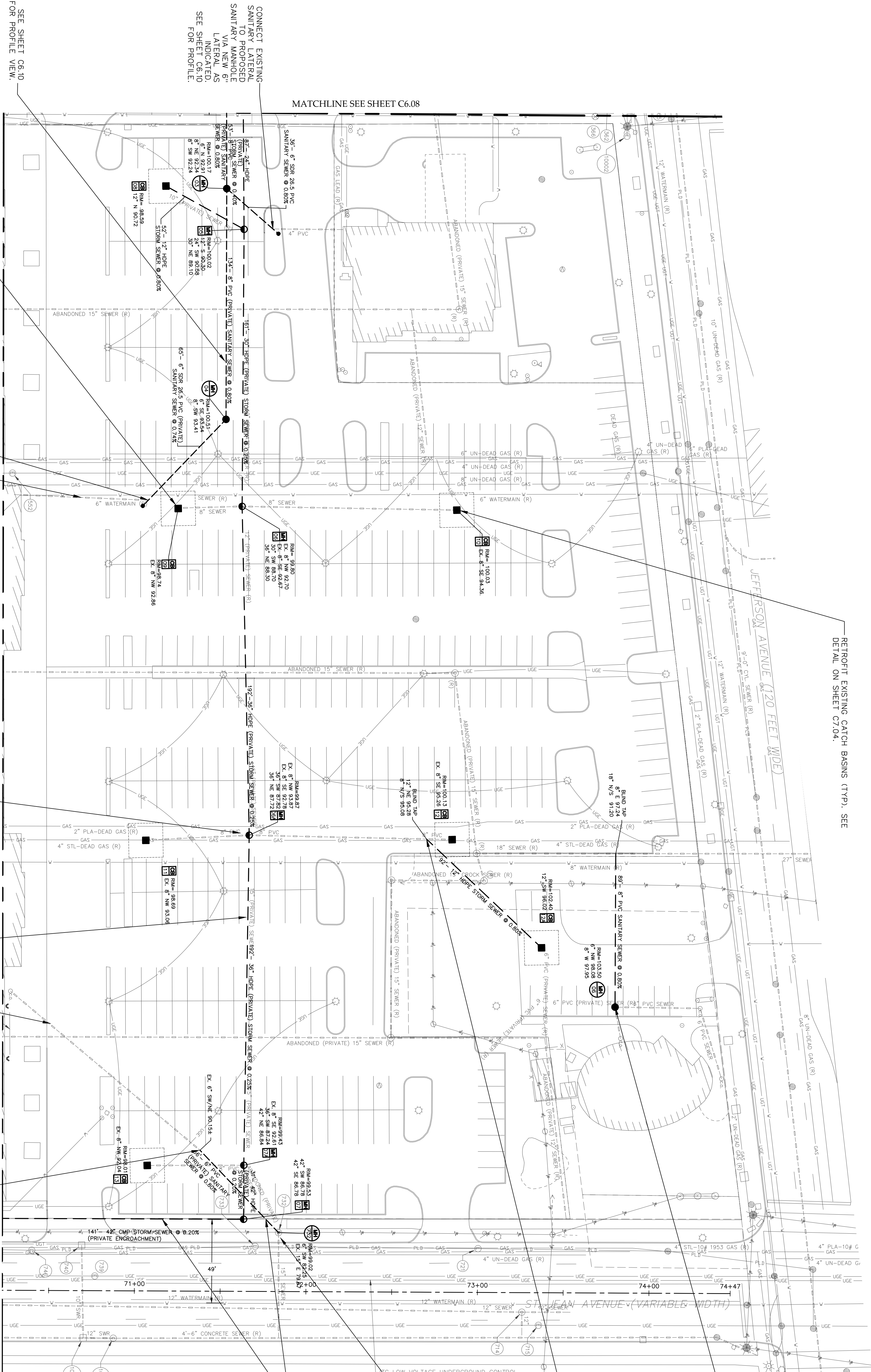
UTILITY PLAN & PROFILES

Jefferson Village Stormwater Separation Phase 1

City of Detroit
Wayne County
MICHIGAN

Date: 09.23.16
Scale: 1" = 30'
Sheet: C6.07
Project: 16037.410

Not responsible for other utility lines per
www.detroitmi.gov/Department/Department-Of-Public-Works



RETROFIT EXISTING CATCH BASINS (TYP). SEE
DETAIL ON SHEET C7.04.

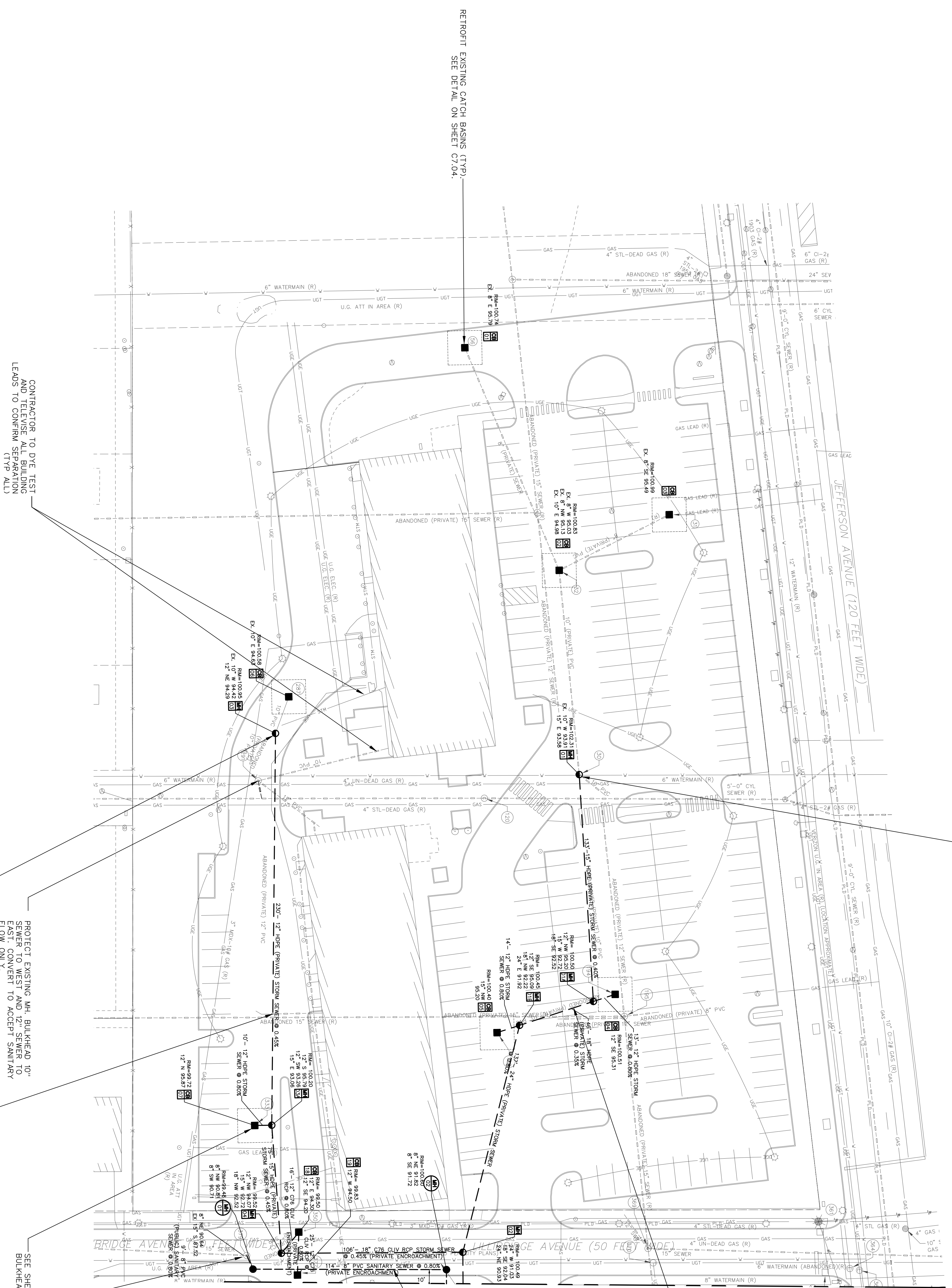
RETROFIT EXISTING CATCH BASINS (TYP).
SEE DETAIL ON SHEET C7.04.

CONNECT EXISTING SANITARY LATERAL TO
PROPOSED SANITARY MANHOLE VIA NEW 6"
LATERAL AS INDICATED. SEE
SHEET C6.10 FOR PROFILE.

CONNECT EXISTING
SANITARY MANHOLE
VIA NEW 6"
LATERAL AS
INDICATED.
SEE SHEET C6.10
FOR PROFILE.

SEE SHEET C6.10
FOR PROFILE VIEW.

NOTE:
WATER TABLE ELEVATION VARIES BETWEEN 12' DEEP
AND GREATER THAN 15'6", PER SOIL BORINGS DATED
11-12-2002.



RECONFIGURE MANHOLE, BULK HEAD 10"
PVC OUTLET TO 5'-0" SEWER AND FILL
STRUCTURE WITH CONCRETE TO ALLOW
FLOW TO WHOLE.

CONTRACTOR TO DYE TEST
AND TELEVIEW ALL BUILDING
LEADS TO CONFIRM SEPARATION
(TYP ALL)

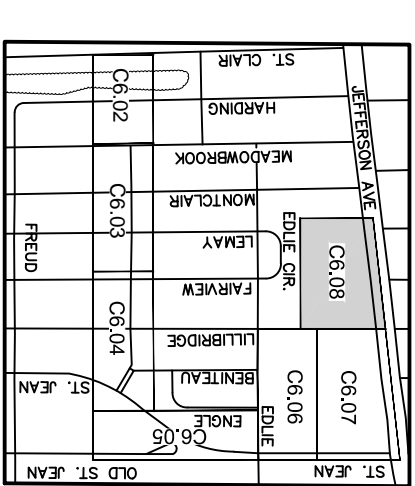
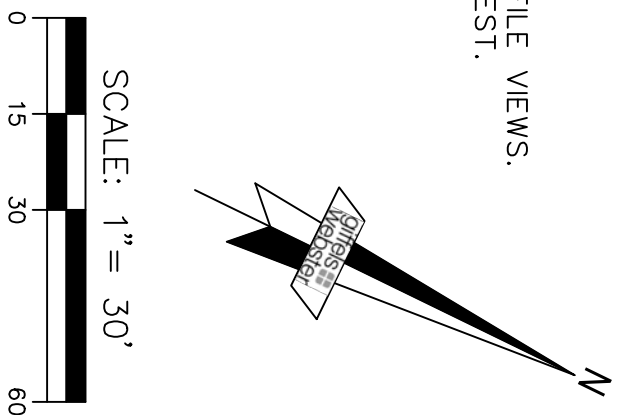
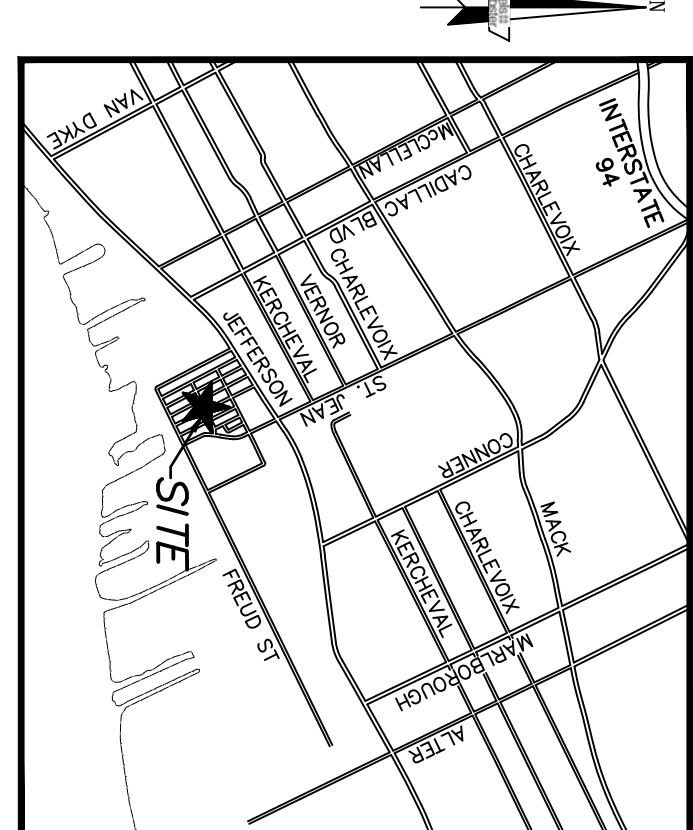
PROTECT EXISTING MH, BULKHEAD 10"
SEWER TO WEST AND 12" SEWER TO
EAST. CONVERT TO ACCEPT SANITARY
FLOW ONLY.

CONNECT EXISTING STORM, LEAD TO
PROPOSED 12" STORM SEWER.
CONTRACTOR TO DYE TEST AND
TELEVIEW ALL BUILDING LEADS TO
CONFIRM SEPARATION (TYP ALL)

SEE SHEET C6.09 FOR PROFILE VIEWS.
TAP EXISTING MH379 WITH
PROPOSED 8" SANITARY SEWER.

SEE SHEET C6.09 FOR PROFILE VIEWS.

SEE SHEET C6.09 FOR PROFILE VIEWS.



| DATE | ISSUE |
|------------|---------------------------|
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| 2017-10-10 | PERMIT REVIEW RESUBMITTAL |
| 2017-10-30 | PERMIT REVIEW RESUBMITTAL |

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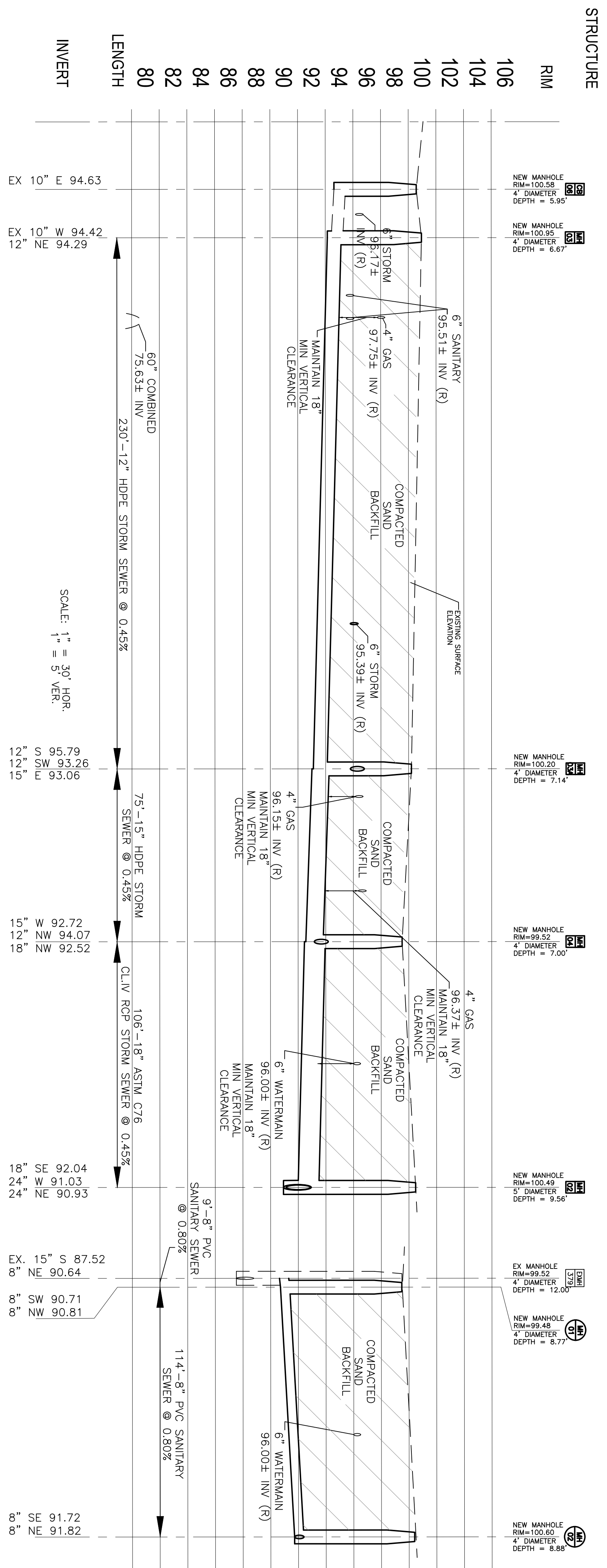
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Sheet: C6.08
Project: 16037.41D

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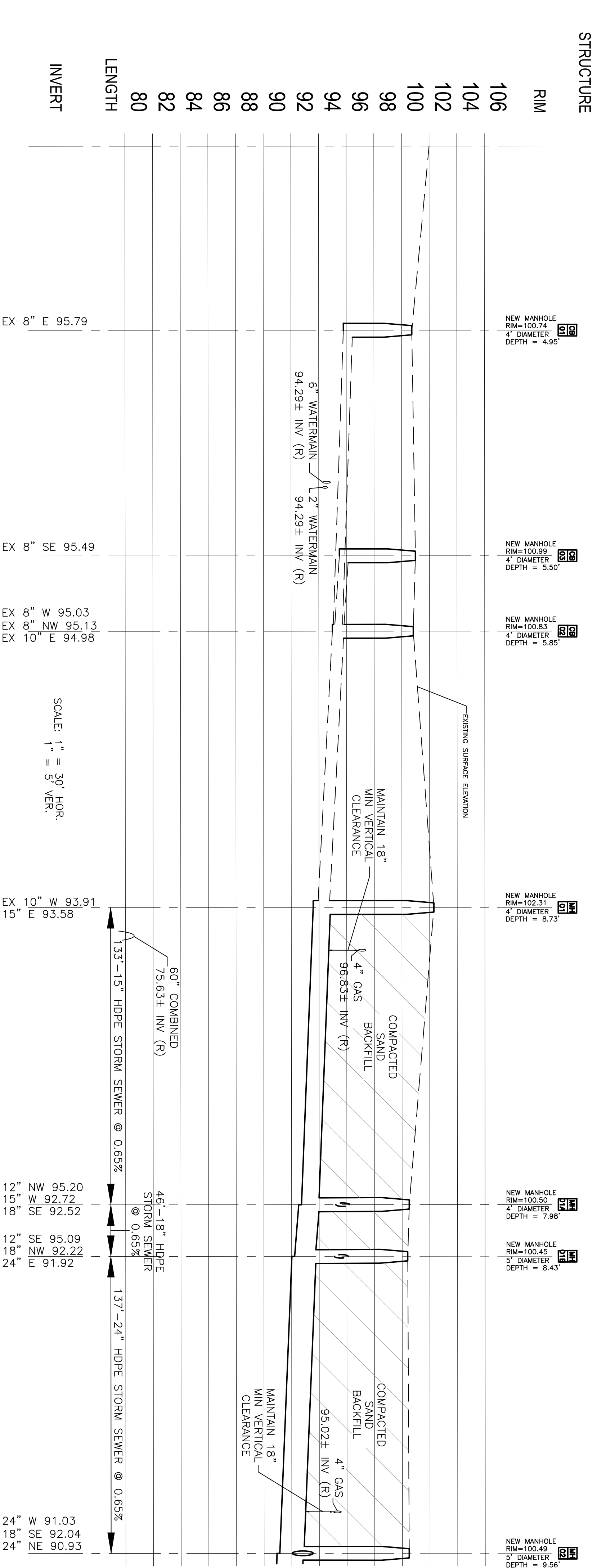
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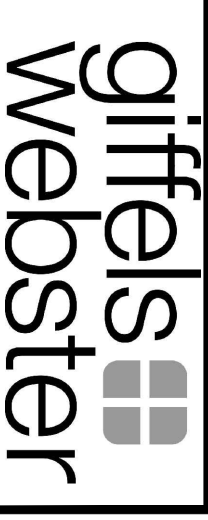
SEE SHEET C6.08
FOR PLAN VIEW



SEE SHEET C6.08
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| 2017-10-19 | PERMIT REVIEW RESUBMITTAL |
| 2017-10-30 | PERMIT REVIEW RESUBMITTAL |

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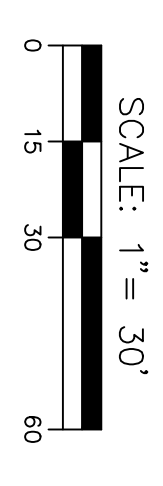
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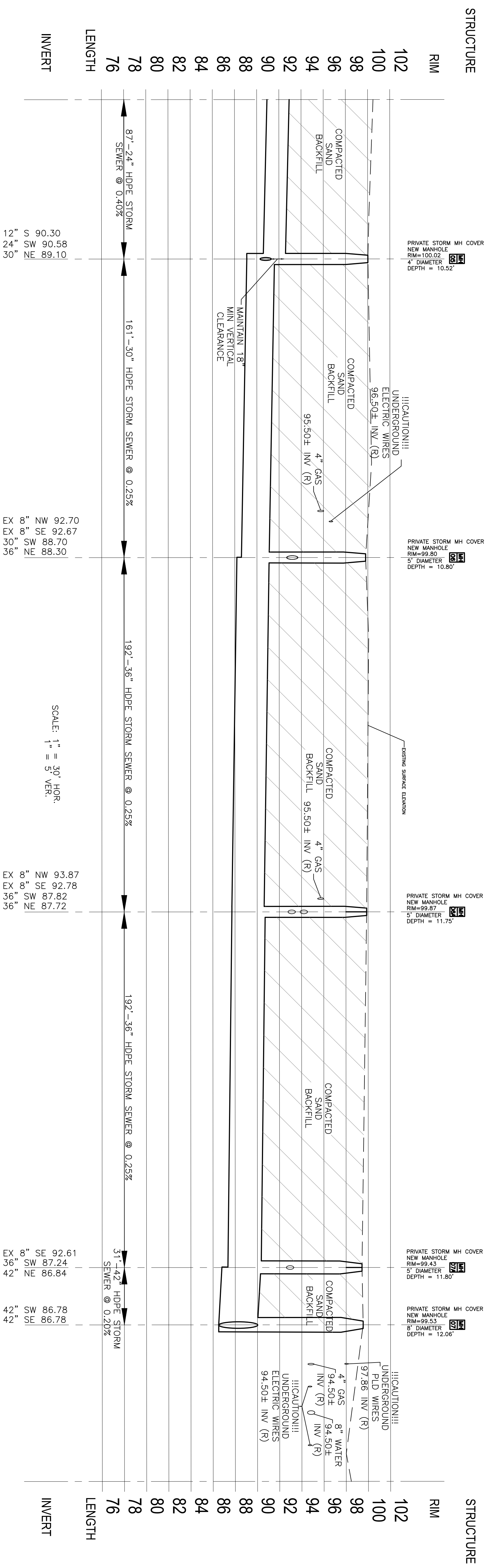
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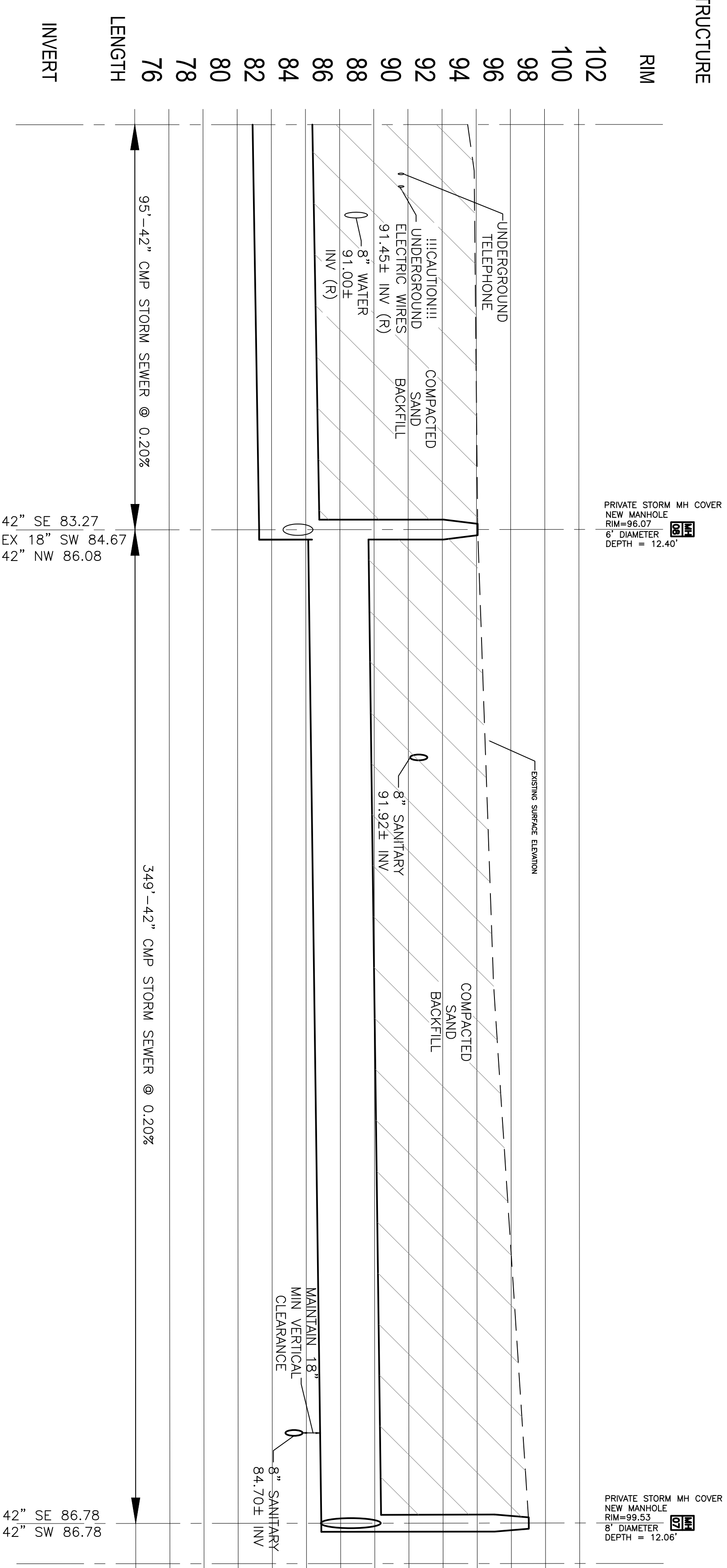
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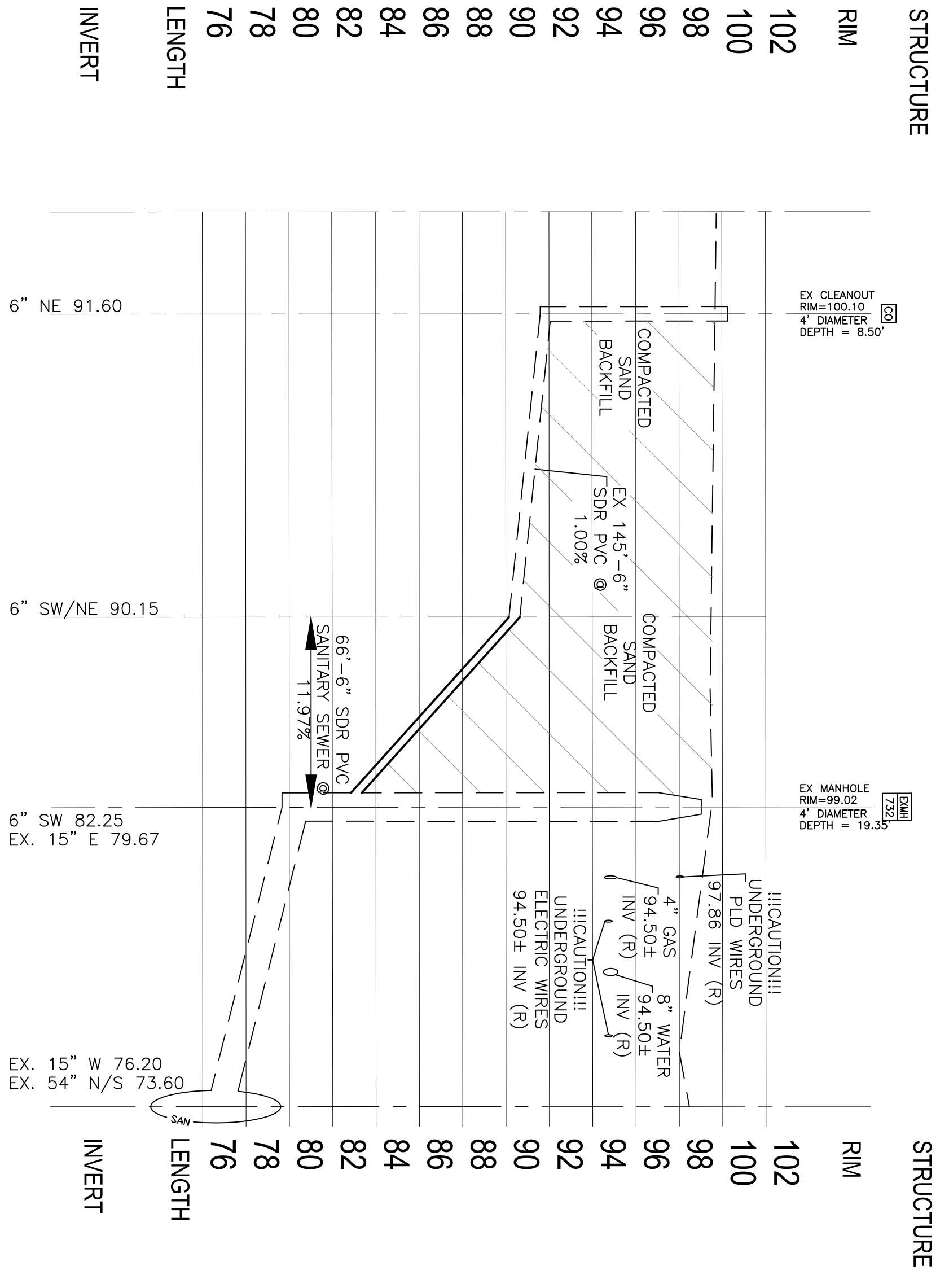
**SEE SHEET C6.07
FOR PLAN VIEW**



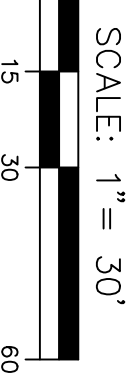
**SEE SHEET C6.06
FOR PLAN VIEW**



**SEE SHEET C6.07
FOR PLAN VIEW**

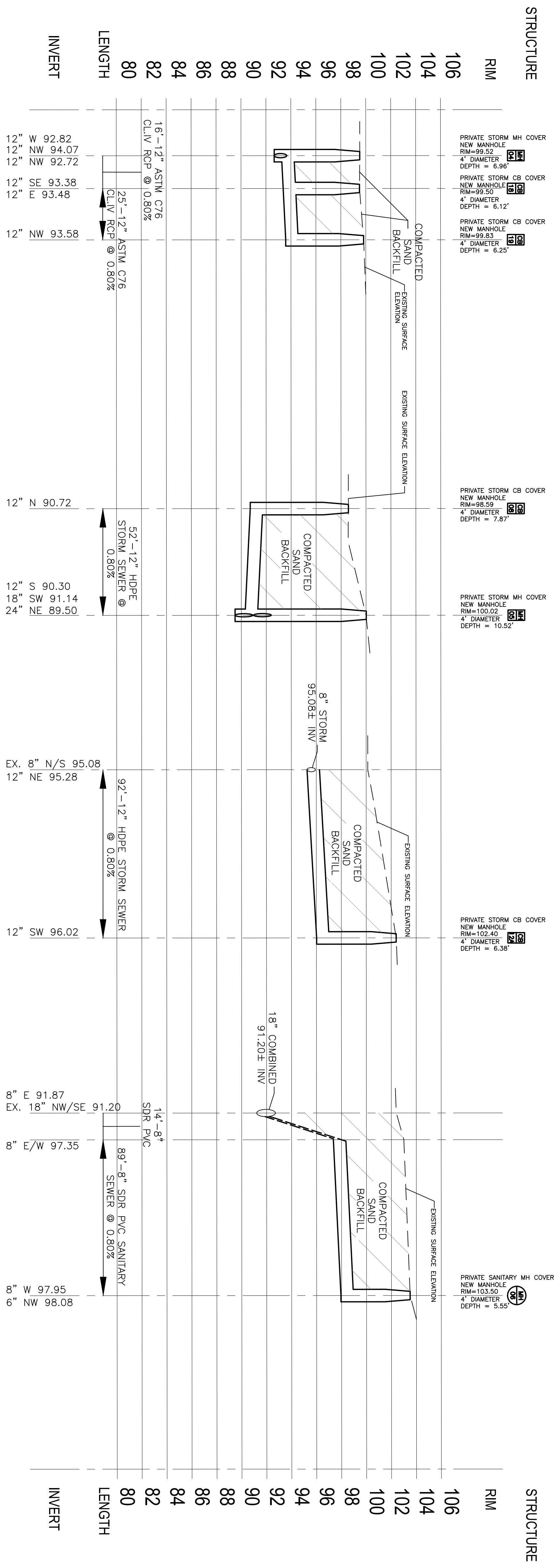


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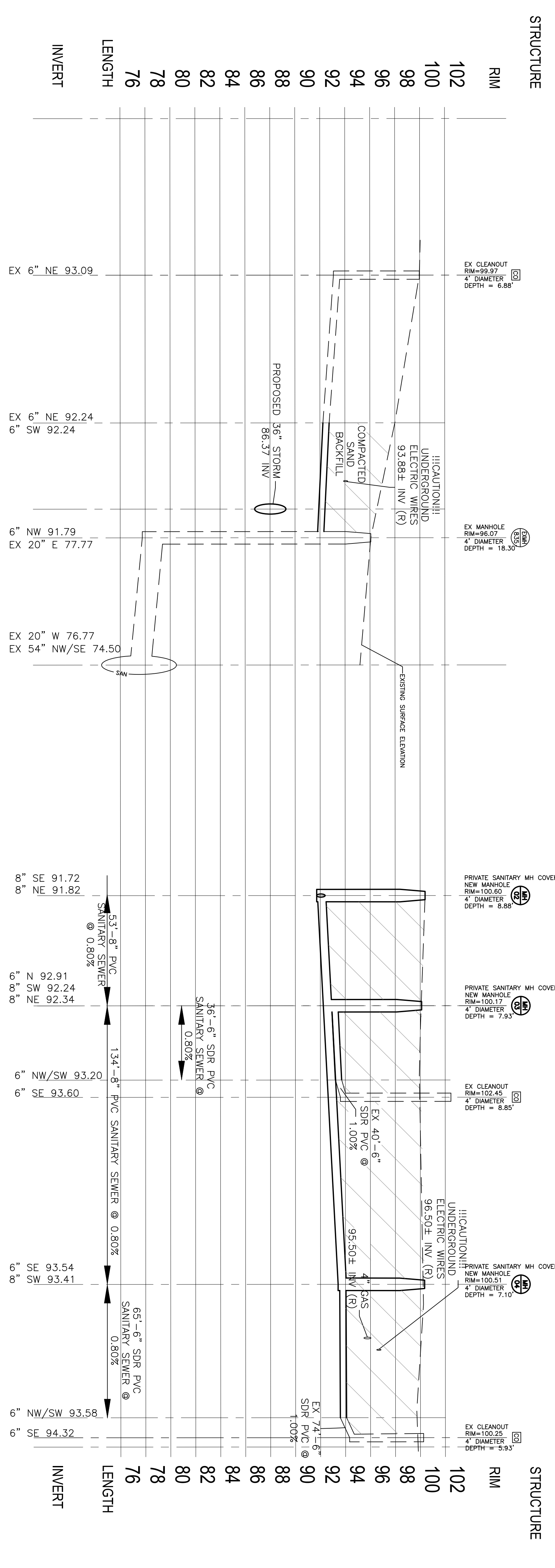
SEE SHEET C6.08
FOR PLAN VIEW

SEE SHEET C6.07
FOR PLAN VIEW



SEE SHEET C6.06
FOR PLAN VIEW

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