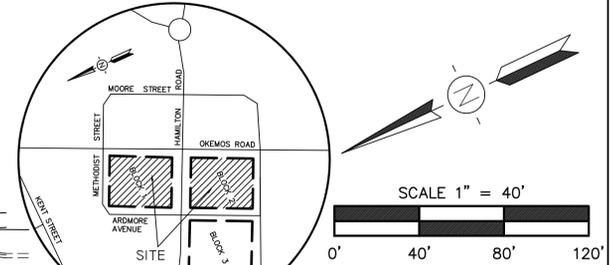


CONSTRUCTION PLANS FOR: Village of Okemos

MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN



EX. STORM SEWER INVENTORIES

CATCH BASIN #100 RM ELEV. = 851.88 8" RCP N INV. = 847.69 TOP OF DEBRIS ELEV. = 847.66 SUMP ELEV. = 846.19	CATCH BASIN #126 (DEMO) RM ELEV. = 846.24 6" PVC SE INV. = 846.15 TOP OF DEBRIS ELEV. = 846.10
STORM MANHOLE #101 RM ELEV. = 852.29 12" RCP E INV. = 846.78 15" RCP S ELEV. = 846.59 12" RCP W INV. = 846.90 TOP OF DEBRIS ELEV. = 846.75	CATCH BASIN #127 (DEMO) RM ELEV. = 846.88 8" PVC N INV. = 844.49 SUMP ELEV. = 844.04
CATCH BASIN #102 RM ELEV. = 851.85 12" RCP E INV. = 847.33 TOP OF DEBRIS ELEV. = 847.35	CATCH BASIN #128 (DEMO) RM ELEV. = 847.24 8" VCP NE INV. = 844.05 8" PVC S INV. = 844.04 TOP OF DEBRIS ELEV. = 844.04
CATCH BASIN #103 (DEMO) RM ELEV. = 852.09 SW RESTRICTOR PLATE INV. = 849.23 SW 12" SQUARE OPENING INV. = 849.13 SUMP ELEV. = 846.89	CATCH BASIN #129 (DEMO) RM ELEV. = 848.81 4" S INV. = 845.28 12" RCP NW INV. = 845.19 SUMP ELEV. = 845.19
CATCH BASIN #104 (DEMO) RM ELEV. = 851.00 8" RCP N INV. = 847.68 TOP OF WATER ELEV. = 847.68 SUMP ELEV. = 846.96	CATCH BASIN #130 (ADJUST TO 849.90) RM ELEV. = 844.91 12" RCP E INV. = 844.91 8" VCP SW INV. = 844.93 (REMOVE) SUMP ELEV. = 843.68 PROP. I.E. 12" NW/S 844.93
CATCH BASIN #105 (DEMO) RM ELEV. = 849.67 6" VCP NE INV. = 845.07 8" RCP S INV. = 844.91 SUMP ELEV. = 844.17	CATCH BASIN #131 RM ELEV. = 846.24 15" RCP N INV. = 840.99 12" RCP E INV. = 839.05 8" VCP SW INV. = 842.60 12" RCP W INV. = 843.06 SUMP ELEV. = 838.96
CATCH BASIN #106 (DEMO) RM ELEV. = 850.60 8" PVC W TOP OF PIPE ELEV. = 849.12 TOP OF DEBRIS ELEV. = 848.80	CATCH BASIN #132 RM ELEV. = 846.00 15" RCP S INV. = 841.09 12" RCP NE INV. = 841.09 SUMP ELEV. = 838.70
STORM MANHOLE #107 RM ELEV. = 845.42 12" RCP NE INV. = 838.54 (REMOVE) 18" RCP E INV. = 837.26 PROP. I.E. 18" SE 838.75	STORM MANHOLE #133 RM ELEV. = 846.58 12" RCP N INV. = 838.68 12" RCP S INV. = 840.04 15" RCP W INV. = 838.23
CATCH BASIN #108 RM ELEV. = 844.38 10" RCP N INV. = 840.43 10" RCP S INV. = 840.39 TOP OF DEBRIS ELEV. = 840.38	STORM MANHOLE #134 RM ELEV. = 846.71 TOP OF DEBRIS ELEV. = 845.41
CATCH BASIN #109 RM ELEV. = 844.72 10" RCP S INV. = 840.72 TOP OF DEBRIS ELEV. = 840.47	STORM MANHOLE #135 RM ELEV. = 844.37 12" RCP NE INV. = 840.73 12" RCP SE INV. = 842.62 SUMP ELEV. = 838.56
CATCH BASIN #110 (DEMO) RM ELEV. = 844.72 12" RCP SW INV. = 839.24 12" RCP NW INV. = 839.01 SUMP ELEV. = 838.12	CATCH BASIN #136 RM ELEV. = 846.68 12" RCP E INV. = 843.69 12" RCP NW INV. = 843.89 SUMP ELEV. = 840.92
CATCH BASIN #111 (DEMO) RM ELEV. = 844.68 12" RCP S INV. = 839.47 SUMP ELEV. = 839.06	STORM MANHOLE #137 RM ELEV. = 846.55 12" RCP N INV. = 841.45 18" RCP N INV. = 833.92 23" RCP E INV. = 833.83 12" RCP SW INV. = 840.56 18" RCP W INV. = 834.37
CATCH BASIN #112 (DEMO) RM ELEV. = 850.32 4" VCP E INV. = 847.30 6" VCP W INV. = 847.39 SUMP ELEV. = 847.22	CATCH BASIN #138 RM ELEV. = 846.01 12" RCP S INV. = 841.59 SUMP ELEV. = 840.09
CATCH BASIN #113 (DEMO) RM ELEV. = 851.08 6" VCP W INV. = 848.40 TOP OF DEBRIS ELEV. = 848.38	CATCH BASIN #140 RM ELEV. = 838.40 8" PVC NW INV. = 836.40 SUMP ELEV. = 836.15
CATCH BASIN #114 (DEMO) RM ELEV. = 850.95 6" VCP SW INV. = 848.23 TOP OF DEBRIS ELEV. = 848.23	STORM MANHOLE #141 RM ELEV. = 839.97 18" RCP NW INV. = 834.70 18" RCP E INV. = 834.52 6" PVC SE INV. = 835.11
CATCH BASIN #115 (DEMO) RM ELEV. = 850.89 4" PVC SE INV. = 848.55 4" PVC SW INV. = 848.52 SUMP ELEV. = 848.43	STORM MANHOLE #142 RM ELEV. = 841.24 12" RCP S INV. = 834.56 18" RCP S INV. = 834.18 18" RCP W INV. = 834.14
CATCH BASIN #116 (DEMO) RM ELEV. = 850.06 12" RCP NE INV. = 846.01 4" VCP NW INV. = 845.11 TOP OF DEBRIS ELEV. = 845.76	CATCH BASIN #143 RM ELEV. = 840.02 10" RCP N INV. = 835.36 12" RCP NW INV. = 835.34 SUMP ELEV. = 835.02
CATCH BASIN #117 RM ELEV. = 850.01 12" RCP NE INV. = 845.88 TOP OF DEBRIS ELEV. = 845.88	CATCH BASIN #144 RM ELEV. = 841.65 6" PVC NE INV. = 840.41 4" PVC SE INV. = 838.15 10" RCP S INV. = 837.38 SUMP ELEV. = 836.75
STORM MANHOLE #118 RM ELEV. = 849.82 12" RCP E INV. = 845.77 (REMOVE) 12" RCP W INV. = 845.77 PROP. I.E. 12" W 845.77	STORM MANHOLE #145 RM ELEV. = 837.27 18" RCP E INV. = 832.65 6" PVC S INV. = 832.97 18" RCP W INV. = 832.63
CATCH BASIN #119 RM ELEV. = 849.78 12" RCP NW INV. = 845.94 TOP OF DEBRIS ELEV. = 844.78	CATCH BASIN #146 RM ELEV. = 836.82 6" PVC W INV. = 834.15 SUMP ELEV. = 833.47
STORM MANHOLE #120 RM ELEV. = 849.59 12" RCP N INV. = 841.58 12" RCP SE INV. = 845.08 12" RCP W INV. = 844.74 SUMP ELEV. = 844.09	CATCH BASIN #147 RM ELEV. = 837.62 12" RCP S INV. = 833.02 10" RCP W INV. = 833.13 12" RCP NE INV. = 844.49 12" RCP E INV. = 840.65 12" RCP S INV. = 841.19 8" RCP W INV. = 845.02
STORM MANHOLE #121 RM ELEV. = 849.08 12" RCP N INV. = 840.68 12" RCP NE INV. = 844.49 12" RCP E INV. = 840.65 12" RCP S INV. = 841.19 8" RCP W INV. = 845.02	CATCH BASIN #148 RM ELEV. = 851.94 6" VCP N INV. = 847.59 6" VCP S INV. = 847.49 SUMP ELEV. = 843.42 PROP. I.E. 12" W 845.86
CATCH BASIN #122 RM ELEV. = 849.72 8" RCP E INV. = 845.86 SUMP ELEV. = 843.42 PROP. I.E. 12" W 845.86	CATCH BASIN #149 RM ELEV. = 851.94 12" RCP S INV. = 841.49 8" RCP E INV. = 845.11 SUMP ELEV. = 841.49
CATCH BASIN #123 RM ELEV. = 849.30 8" RCP SW INV. = 844.33 TOP OF DEBRIS ELEV. = 844.33	CATCH BASIN #150 RM ELEV. = 848.84 8" RCP E INV. = 845.44 8" PVC NW INV. = 845.49 SUMP ELEV. = 845.24

APPROVED WAIVERS

SECTION	REQUIREMENT	REASON	APPROVED WAIVER
86-402 (1)(a)	25' BLDG. SETBACK FROM R.O.W. CLINTON ST., ARDMORE AVE., & METHODIST ST.	49.77' SETBACK	35.23' WAIVER
	85' BLDG. SETBACK FROM CL. HAMILTON RD.	49.97' SETBACK	50.03' WAIVER
86-440 (1)(b)	45' MAX BLDG. HEIGHT (MURDO)	60' BLDG. HEIGHT	15' WAIVER
86-402 (1)(7)	70% MAX IMPERVIOUS SURFACE	84.32% IMPERVIOUS SURFACE	24.32% WAIVER
86-404 (b)(3)	BLDG. 100' FROM RESIDENTIAL ZONED PROPERTY	SOUTH BLDG. SETBACK 86' TO RESIDENTIAL	34' WAIVER
86-736 (1)	20' PARKING SETBACK FROM ROAD R.O.W.	0' PARKING SETBACK	20' WAIVER
86-735	REQUIRED PARKING SPACES		95 SPACE WAIVER

EX. SANITARY SEWER INVENTORIES

SANITARY MANHOLE #200 RM ELEV. = 845.38 8" VCP N INV. = 836.58 8" VCP SE INV. = 836.72 8" VCP S INV. = 835.13	SANITARY MANHOLE #201 RM ELEV. = 851.97 8" VCP E INV. = 844.36 8" VCP N INV. = 836.58 8" VCP S INV. = 835.13	SANITARY MANHOLE #202 RM ELEV. = 844.36 (ADJUST TO 844.08) 8" VCP N INV. = 832.60 8" VCP E INV. = 831.28 8" VCP S INV. = 833.77 8" VCP W INV. = 831.17	SANITARY MANHOLE #203 RM ELEV. = 847.01 (ADJUST TO 850.54) 8" VCP S INV. = 834.83 6" VCP W INV. = 835.03	SANITARY MANHOLE #204 RM ELEV. = 852.05 8" VCP N INV. = 840.56 8" VCP S INV. = 839.57 8" VCP W INV. = 839.58	SANITARY MANHOLE #205 RM ELEV. = 849.65 8" VCP N INV. = 838.88 8" VCP E INV. = 838.97 8" VCP S INV. = 839.51 8" VCP W INV. = 839.58	SANITARY MANHOLE #206 RM ELEV. = 852.02 (ADJUST TO 852.85) 8" VCP N INV. = 840.33 8" VCP E INV. = 840.33 8" VCP S INV. = 840.71	SANITARY MANHOLE #207 RM ELEV. = 846.39 8" VCP N INV. = 835.95 8" VCP SE INV. = 836.72 8" VCP S INV. = 837.00 8" VCP W INV. = 837.61	SANITARY MANHOLE #208 RM ELEV. = 851.62 (ADJUST TO 851.26) 8" VCP N INV. = 840.11 6" VCP NW INV. = 840.54	SANITARY MANHOLE #209 RM ELEV. = 842.15 8" VCP N INV. = 833.91 8" VCP S INV. = 833.91	SANITARY MANHOLE #210 RM ELEV. = 829.25 8" VCP E INV. = 829.30 8" VCP N INV. = 829.25	SANITARY MANHOLE #211 RM ELEV. = 844.36 8" VCP N INV. = 828.24 8" VCP N INV. = 830.50 8" VCP S INV. = 828.26 8" VCP W INV. = 828.22	SANITARY MANHOLE #212 RM ELEV. = 853.37 8" VCP N INV. = 837.05 8" VCP S INV. = 836.88 8" VCP W INV. = 836.98	SANITARY MANHOLE #213 RM ELEV. = 854.01 6" VCP N INV. = 841.73 8" VCP W INV. = 841.31
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EX. LEGEND

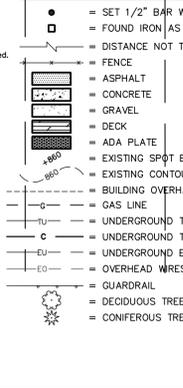
- SET 1/2" BAR WITH CAP
- FOUND IRON AS NOTED
- DISTANCE NOT TO SCALE
- FENCE
- ASPHALT
- CONCRETE
- GRAVEL
- DECK
- ADA PLATE
- EXISTING SPOT ELEVATION
- EXISTING CONTOUR ELEVATION
- BUILDING OVERHANG
- GAS LINE
- UNDERGROUND TELEPHONE
- UNDERGROUND TELEVISION
- UNDERGROUND ELECTRIC
- OVERHEAD WIRES
- GUARDRAIL
- DECIDUOUS TREE
- CONIFEROUS TREE
- SANITARY MANHOLE
- DRAINAGE MANHOLE
- ELECTRIC MANHOLE
- TELEPHONE MANHOLE
- CATCHBASIN
- DOWNSPOUT
- SANITARY CLEANOUT
- FIRE HYDRANT
- VALVE
- UTILITY POLE
- LIGHT POLE
- GROUND LIGHT
- TRAFFIC SIGNAL
- GUY WIRE
- UTILITY PEDESTAL
- TRANSFORMER
- HANDHOLE
- ELECTRIC METER
- GAS METER
- WATER METER
- SIGN
- POST
- AIR CONDITIONING UNIT

PROPOSED LEGEND

- PROPOSED WATER MAIN
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED C.B. MANHOLE (NEW)
- PROPOSED C.B. MANHOLE (EXISTING)
- UTILITY EASEMENT
- CENTER LINE OF ROAD
- RIGHT OF WAY
- PROPERTY LINE
- FIRE HYDRANT
- WATER VALVE
- THRUST BLOCK
- PROPOSED TOP OF CURB ELEV.



NOTE: WATER SHALL HAVE 10" HORIZONTAL SEPARATION & 18" VERTICAL SEPARATION FROM ALL SEWERS.



LEGAL DESCRIPTIONS

Lots 1, 2, 3, 4, 5, 6, 7 & 8 in Block 5, Village of Okemos (formerly Village of Hamilton), Meridian Township, Ingham County, Michigan.

Lots 1, 2, 3, 4, 5, 6, 7 & 8 in Block 6, Village of Okemos (formerly Village of Hamilton), Meridian Township, Ingham County, Michigan.

DEVELOPER:
DOWNTOWN OKEMOS, LLC
2362 JOYLYN OAK RD.
OKEMOS, MI 48864
PH: (517) 290-4650
c/o JOHN PECKHAM

ENGINEER/SURVEYOR:
KEBS, INC.
2116 HASLETT RD.
HASLETT, MI 48840
PH: (517) 339-1014
FAX: (517) 339-8047

SITE DATA
PROPOSED MIXED USE DEVELOPMENT
TOTAL SITE AREA = 3.99 ACRES (173,989 S.F.)
ZONED C-2 (DOWNTOWN OVERLAY DISTRICT)
TOTAL UNITS = 206
TOTAL BEDS = 295
TOTAL RESIDENTIAL AREA = 220,540 S.F.
TOTAL COMMERCIAL AREA = 26,399 S.F.
OVERALL DENSITY = 206 UNITS/3.99 ACRES = 51.63 UNITS/AC

BLOCK 1 (1.99 ACRES)
UNITS = 103
BEDS = 147
DENSITY = 103 UNITS/1.99 ACRES = 51.63 UNITS/AC

BUILDING D/E
1ST FLOOR AREA = 27,316 S.F.
COMMERCIAL AREA = 9,908 S.F.
RESIDENTIAL AREA = 13,008 S.F.
COMMERCIAL AREA (BASEMENT) = 3,909 S.F.
RESIDENTIAL AREA = 82,373 S.F.

BLOCK 2 (2.00 ACRES)
UNITS = 103
BEDS = 148
DENSITY = 103 UNITS/2 ACRES = 51.5 UNITS/AC

BUILDING A/B
1ST FLOOR AREA = 27,316 S.F.
COMMERCIAL AREA = 9,908 S.F.
RESIDENTIAL AREA = 13,007 S.F.
COMMERCIAL AREA (BASEMENT) = 2,674 S.F.
STORAGE (BASEMENT) = 3,828 S.F.
RESIDENTIAL AREA = 86,604 S.F.

BUILDING COVERAGE
RESIDENTIAL 1ST FLOOR = 26,105 S.F.
COMMERCIAL 1ST FLOOR = 19,816 S.F.
BLDG COVERAGE = 54,632 S.F./173,989 S.F. = 31.40%

PARKING DATA:
RESIDENTIAL: 206 UNITS x 2 = 412 SPACES
COMMERCIAL: (26,399) x 0.85 = 22,439 S.F. = 112 SPACES
22,439 USABLE S.F. @ 5/1000 MIN. TOTAL = 524 SPACES

PARKING REDUCTION FOR BIKE PARKING = 1 SPACE/2 BIKE SPACES
REQUIRED PARKING = 524 SPACES - 25 SPACE BIKE RACK REDUCTION = 499 SPACES
TOTAL REQUIRED PARKING AFTER REDUCTIONS = 404 SPACES

PARKING PROVIDED
9' x 20' = 350 SPACES
8' x 20' (COMPACT) = 17 SPACES
B.F. = 16 SPACES
TOTAL = 381 SPACES + 50 BIKE PARKING

ON-STREET (8' x 23') = 45 SPACES
TOTAL SPACES PROVIDED = 428 SPACES (INCL. 16 B.F.) + 50 BIKE PARKING

SHEET INDEX

- OVERALL SITE PLAN
- DIMENSION PLAN - LOWER DECK
- DIMENSION PLAN - UPPER DECK
- UTILITY PLAN
- STORM PLAN
- GRADING PLAN - LOWER DECK
- GRADING PLAN - UPPER DECK
- SOIL EROSION PLAN
- OPENSPACE PLAN
- CLINTON ST/HAMILTON RD PROFILE
- METHODIST ST PROFILE
- ARDMORE AVE PROFILE
- EXISTING FEATURES PLAN
- DEMOLITION PLAN
- DETAILS
- SESC DETAILS

TOWNSHIP DETAILS
SANITARY DETAILS
WATER DETAILS
PATHWAY DETAILS

E-93725-MUPUD-4-12-19
SURVEY#93725ALT

REVISIONS

1-31-22 SUBMITTAL	
6-7-22 PRELIM	
8-29-22 MUPUD	
10-7-22 SUBMITTAL	

KEBS, INC. KYES ENGINEERING
2116 HASLETT ROAD, HASLETT, MI 48840
PH. 517-339-1014 FAX. 517-339-8047

Marshall Office
Ph. 269-781-9800

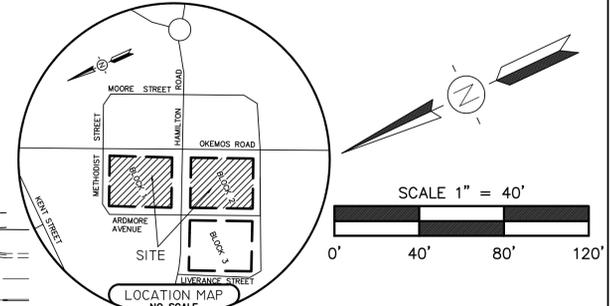
Village of Okemos
OVERALL SITE PLAN

SCALE: 1" = 40' DESIGNER: APPROVED BY:
AJP AJP
DATE: 4-14-19 PROJECT MGR.:
AJP SHEET 1 OF 16
AUTHORIZED BY: VILLAGE OF OKEMOS, LLC JOB #:
99191

10/10/22

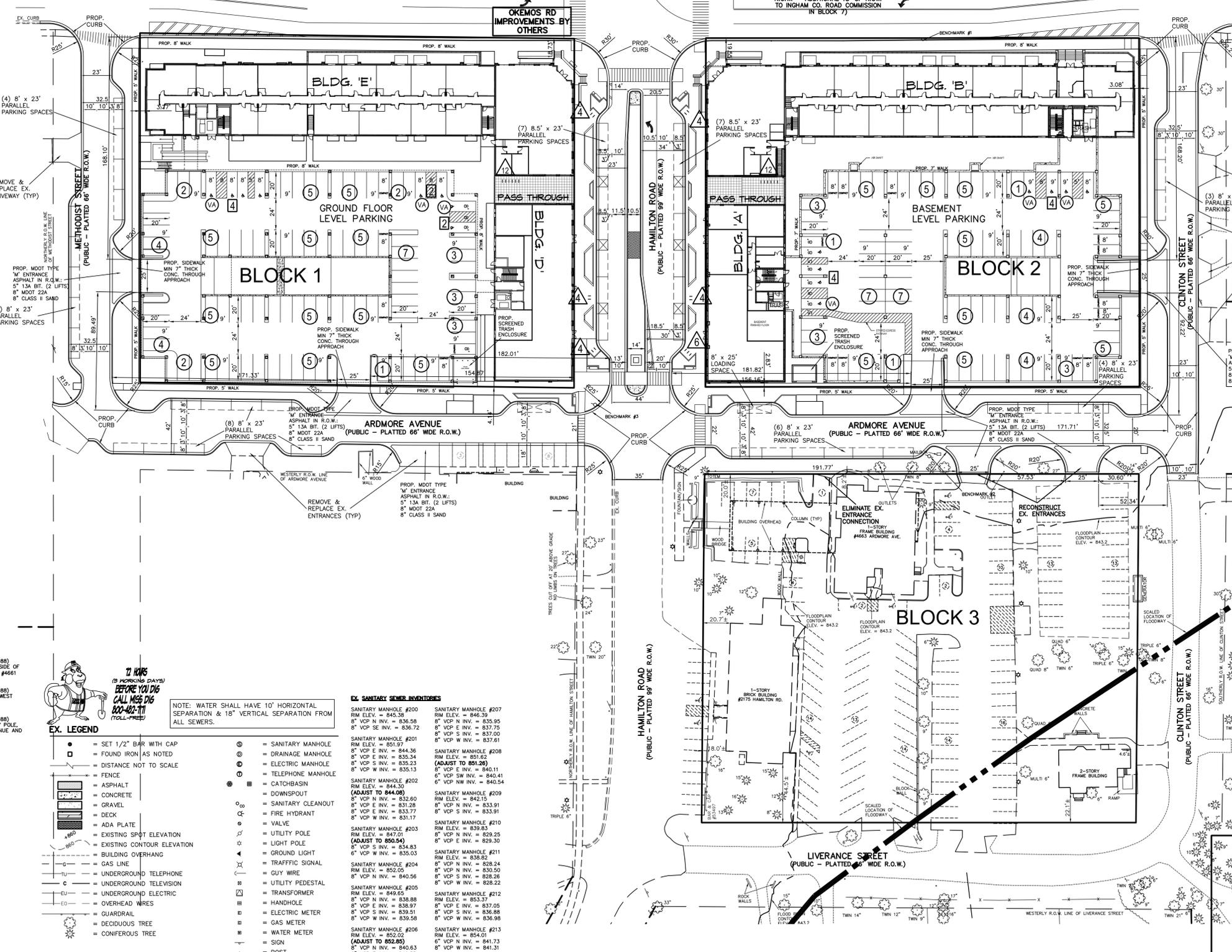
CONSTRUCTION PLANS FOR: Village of Okemos

MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN



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CATCH BASIN #108 RIM ELEV. = 844.38 10" RCP N INV. = 840.43 10" RCP S INV. = 840.39 TOP OF DEBRIS ELEV. = 840.38	CATCH BASIN #134 RIM ELEV. = 846.71 TOP OF DEBRIS ELEV. = 845.41
CATCH BASIN #109 RIM ELEV. = 844.37 10" RCP S INV. = 840.72 TOP OF DEBRIS ELEV. = 840.47	STORM MANHOLE #135 RIM ELEV. = 846.07 12" RCP NE INV. = 840.73 12" RCP SE INV. = 842.62 SUMP ELEV. = 838.66
CATCH BASIN #110 (DEMO) RIM ELEV. = 844.72 12" RCP N INV. = 839.24 12" RCP SW INV. = 839.01 SUMP ELEV. = 836.12	CATCH BASIN #136 RIM ELEV. = 846.68 12" RCP SW INV. = 843.69 12" RCP NW INV. = 842.89 SUMP ELEV. = 840.92
CATCH BASIN #111 (DEMO) RIM ELEV. = 844.66 12" RCP N INV. = 839.47 SUMP ELEV. = 836.06	STORM MANHOLE #137 RIM ELEV. = 846.55 12" RCP N INV. = 841.45 18" RCP N INV. = 833.92 24" RCP E INV. = 833.83 12" RCP SW INV. = 840.56 18" RCP W INV. = 834.37 SUMP ELEV. = 847.22
CATCH BASIN #112 (DEMO) RIM ELEV. = 850.32 10" VCP E INV. = 847.30 6" VCP W INV. = 847.22 SUMP ELEV. = 847.22	CATCH BASIN #138 RIM ELEV. = 846.01 12" RCP N INV. = 841.59 SUMP ELEV. = 840.09
CATCH BASIN #113 (DEMO) RIM ELEV. = 851.09 6" VCP W INV. = 848.40 TOP OF DEBRIS ELEV. = 848.38	CATCH BASIN #140 RIM ELEV. = 836.40 8" PVC NW INV. = 836.40 SUMP ELEV. = 836.15
CATCH BASIN #114 (DEMO) RIM ELEV. = 850.35 6" VCP SW INV. = 848.23 TOP OF DEBRIS ELEV. = 848.23	STORM MANHOLE #141 RIM ELEV. = 839.97 18" RCP NW INV. = 834.70 18" RCP E INV. = 834.52 6" PVC SE INV. = 835.11 8" CLASS II SAND
CATCH BASIN #115 (DEMO) RIM ELEV. = 845.55 4" PVC SE INV. = 848.55 6" PVC SW INV. = 848.52 SUMP ELEV. = 848.43	STORM MANHOLE #142 RIM ELEV. = 841.24 12" RCP SE INV. = 834.56 18" RCP S INV. = 834.18 18" RCP W INV. = 834.14
CATCH BASIN #116 (DEMO) RIM ELEV. = 850.06 12" RCP N INV. = 846.01 4" VCP NW INV. = 846.11 TOP OF DEBRIS ELEV. = 845.76	CATCH BASIN #143 RIM ELEV. = 840.02 10" RCP N INV. = 835.36 12" RCP NW INV. = 835.34 SUMP ELEV. = 841.44
CATCH BASIN #117 RIM ELEV. = 850.01 12" RCP NE INV. = 845.88 TOP OF DEBRIS ELEV. = 845.88	CATCH BASIN #144 RIM ELEV. = 841.65 6" PVC NE INV. = 840.41 4" PVC SE INV. = 838.15 10" RCP S INV. = 837.38 SUMP ELEV. = 836.75 PROP. I.E. 12" W 845.77
CATCH BASIN #118 RIM ELEV. = 849.82 12" RCP E INV. = 845.66 12" RCP SW INV. = 845.77 12" RCP W INV. = 845.77 (REMOVE) PROP. I.E. 12" W 845.77	STORM MANHOLE #145 RIM ELEV. = 837.27 18" RCP E INV. = 832.65 6" PVC S INV. = 832.97 18" RCP W INV. = 832.63
CATCH BASIN #119 RIM ELEV. = 849.25 12" RCP NW INV. = 845.94 SUMP ELEV. = 844.78	CATCH BASIN #146 RIM ELEV. = 836.82 6" PVC N INV. = 834.15 SUMP ELEV. = 833.47
STORM MANHOLE #120 RIM ELEV. = 849.59 12" RCP N INV. = 844.58 12" RCP SE INV. = 845.08 12" RCP W INV. = 844.74 SUMP ELEV. = 844.09	CATCH BASIN #147 RIM ELEV. = 837.62 12" RCP S INV. = 833.02 10" RCP W INV. = 833.13 TOP OF DEBRIS ELEV. = 833.47
STORM MANHOLE #121 RIM ELEV. = 849.28 12" RCP N INV. = 840.68 8" RCP NE INV. = 844.49 12" RCP E INV. = 840.65 12" RCP S INV. = 840.65 12" RCP SW INV. = 841.19 8" RCP W INV. = 845.02	CATCH BASIN #148 RIM ELEV. = 838.03 10" RCP E INV. = 834.15 TOP OF DEBRIS ELEV. = 833.93 8" RCP W INV. = 845.02
CATCH BASIN #122 RIM ELEV. = 849.72 8" RCP E INV. = 845.86 SUMP ELEV. = 843.42 PROP. I.E. 12" W 845.86	CATCH BASIN #149 RIM ELEV. = 851.94 6" VCP N INV. = 847.59 8" VCP S INV. = 847.49 SUMP ELEV. = 843.42
CATCH BASIN #123 RIM ELEV. = 849.30 8" RCP SW INV. = 844.59 TOP OF DEBRIS ELEV. = 844.33	CATCH BASIN #150 RIM ELEV. = 852.27 TOP OF DEBRIS ELEV. = 850.07



PARKING PROVIDED

BLOCK 1	GROUND FLOOR	9' x 20'	=	82 SPACES
		8' x 20'(COMPACT)	=	5 SPACES
		8' x 20'(BF)	=	8 SPACES
	UPPER LEVEL		=	106 SPACES (INCL 8 BF)
			=	201 SPACES
			=	24 BIKE PARKING
BLOCK 2	GROUND FLOOR		=	91 SPACES (INCL 8 BF)
	BASEMENT PARKING	9' x 20'	=	71 SPACES
		8' x 20'(COMPACT)	=	12 SPACES
		8' x 20'(BF)	=	8 SPACES
	TOTAL		=	182 SPACES
			=	26 BIKE PARKING
	ON-STREET (8' x 23')		=	45 SPACES
	TOTAL SPACES PROVIDED =		=	428 SPACES (INCL. 16 B.F.)
			=	50 BIKE PARKING
	TOTAL REQUIRED SPACES =		=	404 SPACES

BENCHMARKS

CATCH BASIN #125 RIM ELEV. = 848.84 8" RCP E INV. = 845.44 8" PVC NW INV. = 845.49 SUMP ELEV. = 844.24	BENCHMARK #1 ELEV. = 852.30 (NAV088) PK NW, WEST SIDE UTILITY POLE, WEST SIDE OF OKEMOS ROAD, 242' SOUTH OF BUILDING #4681 OKEMOS ROAD.
CATCH BASIN #125 RIM ELEV. = 848.84 8" RCP E INV. = 845.44 8" PVC NW INV. = 845.49 SUMP ELEV. = 844.24	BENCHMARK #2 ELEV. = 846.57 (NAV088) PK NW, SOUTHWEST SIDE UTILITY POLE, WEST SIDE OF ARDMORE AVENUE, ON LINE WITH SOUTHERN PARALLEL LINE
	BENCHMARK #3 ELEV. = 856.59 (NAV088) RAILROAD SPIKE, NORTHWEST SIDE UTILITY POLE, NORTHEAST QUADRANT OF ARDMORE AVENUE AND HAMILTON ROAD.

EX. LEGEND

● = SET 1/2" BAR WITH CAP	⊙ = SANITARY MANHOLE
□ = FOUND IRON AS NOTED	⊖ = DRAINAGE MANHOLE
— = DISTANCE NOT TO SCALE	⊕ = ELECTRIC MANHOLE
— = FENCE	⊗ = TELEPHONE MANHOLE
— = ASPHALT	⊞ = CATCHBASIN
— = CONCRETE	⊟ = DOWNSPOUT
— = GRAVEL	⊠ = SANITARY CLEANOUT
— = DECK	⊡ = FIRE HYDRANT
— = ADA PLATE	⊢ = VALVE
— = EXISTING SPOT ELEVATION	⊣ = UTILITY POLE
— = EXISTING CONTOUR ELEVATION	⊤ = LIGHT POLE
— = BUILDING OVERHANG	⊥ = GROUND LIGHT
— = GAS LINE	⊦ = TRAFFIC SIGNAL
— = UNDERGROUND TELEPHONE	⊧ = GUY WIRE
— = UNDERGROUND TELEVISION	⊨ = UTILITY PEDESTAL
— = UNDERGROUND ELECTRIC	⊩ = TRANSFORMER
— = OVERHEAD WIRES	⊪ = HANDHOLE
— = GUARDRAIL	⊫ = ELECTRIC METER
— = DECIDUOUS TREE	⊬ = GAS METER
— = CONIFEROUS TREE	⊭ = WATER METER
	— = SIGN
	— = POST
	— = AIR CONDITIONING UNIT

PROPOSED LEGEND

— = PROPOSED WATER MAIN
— = PROPOSED SANITARY SEWER
— = PROPOSED STORM SEWER
— = PROPOSED C.B. MANHOLE (NEW)
— = PROPOSED C.B. MANHOLE (EXISTING)
— = CENTER LINE OF ROAD
— = RIGHT OF WAY
— = PROPERTY LINE
— = FIRE HYDRANT
— = WATER VALVE
— = THRUST BLOCK
▲/▽ = 800/00
— = PROPOSED TOP OF CURB ELEV.

NOTE: WATER SHALL HAVE 10' HORIZONTAL SEPARATION & 18" VERTICAL SEPARATION FROM ALL SEWERS.

EX. SANITARY SEWER INVENTORIES

SANITARY MANHOLE #200 RIM ELEV. = 845.38 8" VCP N INV. = 836.58 8" VCP S INV. = 836.72 8" VCP W INV. = 837.00	SANITARY MANHOLE #207 RIM ELEV. = 846.39 8" VCP N INV. = 835.95 8" VCP E INV. = 837.75 8" VCP S INV. = 837.00 8" VCP W INV. = 837.61
SANITARY MANHOLE #201 RIM ELEV. = 851.97 8" VCP N INV. = 844.36 8" VCP S INV. = 835.34 8" VCP W INV. = 835.13	SANITARY MANHOLE #208 RIM ELEV. = 851.62 8" VCP N INV. = 837.00 8" VCP E INV. = 840.41 8" VCP S INV. = 840.54 8" VCP W INV. = 840.41
SANITARY MANHOLE #202 (ADJUST TO 844.08) RIM ELEV. = 844.36 8" VCP N INV. = 832.60 8" VCP S INV. = 831.28 8" VCP E INV. = 833.77 8" VCP W INV. = 831.17	SANITARY MANHOLE #209 RIM ELEV. = 842.15 8" VCP N INV. = 833.91 8" VCP S INV. = 833.91 8" VCP W INV. = 833.91
SANITARY MANHOLE #203 (ADJUST TO 850.54) RIM ELEV. = 844.36 8" VCP S INV. = 834.83 8" VCP W INV. = 835.03	SANITARY MANHOLE #210 RIM ELEV. = 839.83 8" VCP N INV. = 829.25 8" VCP E INV. = 829.30 8" VCP S INV. = 829.30
SANITARY MANHOLE #204 RIM ELEV. = 852.05 8" VCP N INV. = 840.56	SANITARY MANHOLE #211 RIM ELEV. = 836.82 8" VCP N INV. = 828.24 8" VCP S INV. = 830.50 8" VCP W INV. = 828.26 8" VCP W INV. = 828.22
SANITARY MANHOLE #205 RIM ELEV. = 849.65 8" VCP N INV. = 838.88 8" VCP S INV. = 838.97 8" VCP E INV. = 839.51 8" VCP W INV. = 839.58	SANITARY MANHOLE #212 RIM ELEV. = 853.37 8" VCP N INV. = 837.05 8" VCP S INV. = 836.88 8" VCP W INV. = 836.98
SANITARY MANHOLE #206 (ADJUST TO 852.85) RIM ELEV. = 852.02 8" VCP N INV. = 840.83 8" VCP E INV. = 840.33 8" VCP S INV. = 840.71	SANITARY MANHOLE #213 RIM ELEV. = 854.01 8" VCP N INV. = 841.73 8" VCP S INV. = 841.31

- ⊙ DENOTES NUMBER OF EXISTING PARKING SPACES
- ⊠ DENOTES NUMBER OF B/F SPACES
- ⊞ DENOTES VAN ACCESS B/F SPACES
- ⊡ DENOTES PROPOSED NUMBER OF 9' x 20' PARKING SPACES
- ⊡ DENOTES PROPOSED NUMBER OF 10' x 18' PARKING SPACES
- ⊞ DENOTES NUMBER OF BIKE PARKING SPACES

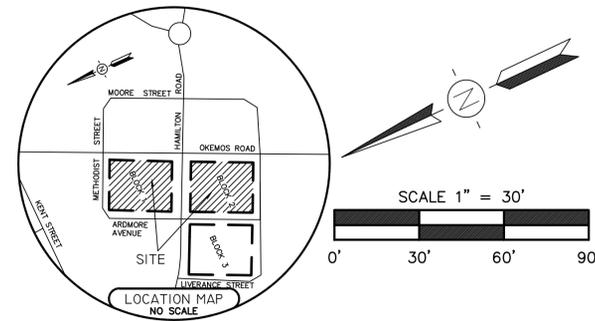
E-93725-MUPUD-4-12-19
SURVEY#93725ALT

REVISIONS	KEBS, INC. KYES ENGINEERING BRYAN LAND SURVEYS 2116 HASLETT ROAD, HASLETT, MI 48840 PH. 517-339-1014 FAX. 517-339-8047
1-31-22 SUBMITTAL AJP	Marshall Office Ph. 269-781-9800
6-7-22 PRELIM	Village of Okemos
8-29-22 MUPUD	DIMENSION PLAN - LOWER LEVEL PARKING
10-7-22 SUBMITTAL	SCALE: 1" = 40' DATE: 4-14-19 AUTHORIZED BY: VILLAGE OF OKEMOS, LLC
	DESIGNER: ALLEN J. PATRICK ENGINEER NO. 49313 APPROVED BY: AJP PROJECT MGR. AJP SHEET 2 OF 16 JOB # 99191

CONSTRUCTION PLANS FOR: Village of Okemos MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN

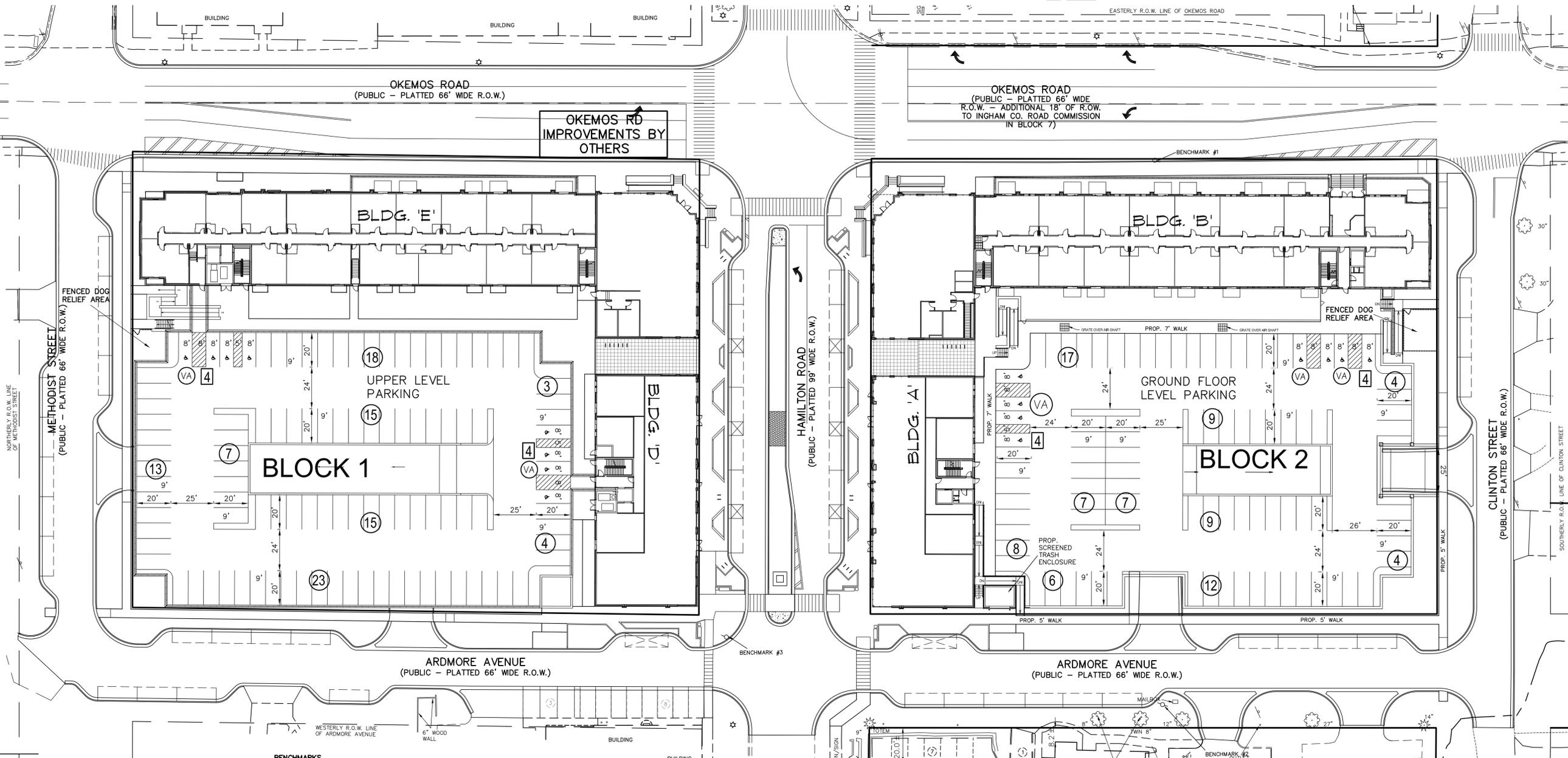
PARKING PROVIDED

BLOCK 1	GROUND FLOOR	= 82 SPACES
	9' x 20'	= 5 SPACES
	8' x 20'(COMPACT)	= 8 SPACES
	8' x 20'(BF)	= 8 SPACES
UPPER LEVEL	= 106 SPACES (INCL 8 BF)	
TOTAL	= 201 SPACES	
	24 BIKE PARKING	
BLOCK 2	GROUND FLOOR	= 91 SPACES (INCL 8 BF)
	BASEMENT PARKING	= 12 SPACES
	9' x 20'	= 71 SPACES
	8' x 20'(COMPACT)	= 12 SPACES
	8' x 20'(BF)	= 8 SPACES
TOTAL	= 182 SPACES	
	26 BIKE PARKING	
ON-STREET (8' x 23')	= 45 SPACES	
TOTAL SPACES PROVIDED =	428 SPACES (INCL. 16 B.F.)	
	50 BIKE PARKING	
TOTAL REQUIRED SPACES =	404 SPACES	



EX. STORM SEWER INVENTORIES

CATCH BASIN #100 RM ELEV. = 851.88 8" RCP N INV. = 847.69 TOP OF DEBRIS ELEV. = 847.66 SUMP ELEV. = 846.19	CATCH BASIN #126 (DEMO) RM ELEV. = 846.50 6" PVC SE INV. = 846.15 TOP OF DEBRIS ELEV. = 846.10
STORM MANHOLE #101 RM ELEV. = 852.29 12" RCP E INV. = 846.78 12" RCP S INV. = 846.59 TOP OF DEBRIS ELEV. = 846.75	CATCH BASIN #127 (DEMO) RM ELEV. = 846.82 8" PVC N INV. = 844.49 SUMP ELEV. = 844.04
CATCH BASIN #102 RM ELEV. = 851.85 12" RCP E INV. = 847.33 TOP OF DEBRIS ELEV. = 847.35	CATCH BASIN #128 (DEMO) RM ELEV. = 847.24 8" VCP NE INV. = 844.05 8" PVC S INV. = 844.05 TOP OF DEBRIS ELEV. = 844.04
CATCH BASIN #103 (DEMO) RM ELEV. = 852.09 SW RESTRICTOR PLATE INV. = 849.23 SW 12" SQUARE OPENING INV. = 849.13 SUMP ELEV. = 846.89	CATCH BASIN #129 (DEMO) RM ELEV. = 848.81 4" S INV. = 845.28 12" RCP NW INV. = 845.19 SUMP ELEV. = 844.81
CATCH BASIN #104 (DEMO) RM ELEV. = 851.00 8" RCP N INV. = 847.68 TOP OF WATER ELEV. = 847.68 SUMP ELEV. = 846.60	CATCH BASIN #130 RM ELEV. = 846.88 (ADJUST TO 849.50) 12" RCP E INV. = 844.91 12" RCP SE INV. = 844.93 (REMOVE) SUMP ELEV. = 843.68 PROP. I.E. 12" NW/S 844.93
CATCH BASIN #105 (DEMO) RM ELEV. = 849.67 6" VCP NE INV. = 845.07 8" RCP S INV. = 844.91 SUMP ELEV. = 844.17	CATCH BASIN #131 RM ELEV. = 846.24 15" RCP N INV. = 840.99 15" RCP E INV. = 839.05 8" VCP SW INV. = 842.60 12" RCP W INV. = 843.06 SUMP ELEV. = 838.96
CATCH BASIN #106 (DEMO) RM ELEV. = 850.60 8" PVC W TOP OF PIPE ELEV. = 849.12 TOP OF DEBRIS ELEV. = 848.80	CATCH BASIN #132 RM ELEV. = 846.00 15" RCP S INV. = 841.09 SUMP ELEV. = 838.70
STORM MANHOLE #107 RM ELEV. = 845.37 10" RCP N INV. = 840.22 12" RCP NE INV. = 838.54 (REMOVE) 18" RCP E INV. = 837.28 PROP. I.E. 18" SE 838.75	STORM MANHOLE #133 RM ELEV. = 846.58 12" RCP N INV. = 838.68 8" RCP E INV. = 834.69 12" RCP S INV. = 840.04 15" RCP W INV. = 838.23
CATCH BASIN #108 RM ELEV. = 844.38 10" RCP N INV. = 840.43 10" RCP S INV. = 840.39 TOP OF DEBRIS ELEV. = 840.38	CATCH BASIN #134 RM ELEV. = 846.71 TOP OF DEBRIS ELEV. = 845.41
CATCH BASIN #109 RM ELEV. = 844.37 10" RCP S INV. = 840.72 TOP OF DEBRIS ELEV. = 840.47	STORM MANHOLE #135 RM ELEV. = 846.67 12" RCP NE INV. = 840.73 12" RCP SE INV. = 842.62 SUMP ELEV. = 838.56
CATCH BASIN #110 (DEMO) RM ELEV. = 844.72 12" RCP S INV. = 839.24 12" RCP SW INV. = 839.01 SUMP ELEV. = 838.12	CATCH BASIN #136 RM ELEV. = 846.68 12" RCP E INV. = 843.69 12" RCP NW INV. = 842.89 SUMP ELEV. = 840.92
CATCH BASIN #111 (DEMO) RM ELEV. = 844.68 12" RCP S INV. = 839.47 SUMP ELEV. = 839.06	STORM MANHOLE #137 RM ELEV. = 846.55 12" RCP N INV. = 841.45 18" RCP N INV. = 833.92 24" RCP E INV. = 833.83 12" RCP SW INV. = 840.56 18" RCP W INV. = 834.37 SUMP ELEV. = 847.22
CATCH BASIN #112 (DEMO) RM ELEV. = 850.32 12" RCP E INV. = 847.30 6" VCP W INV. = 847.39 SUMP ELEV. = 847.22	CATCH BASIN #138 RM ELEV. = 846.01 12" RCP S INV. = 841.59 SUMP ELEV. = 840.09
CATCH BASIN #113 (DEMO) RM ELEV. = 851.09 6" VCP W INV. = 848.40 TOP OF DEBRIS ELEV. = 848.38	CATCH BASIN #140 RM ELEV. = 838.40 8" PVC NW INV. = 836.40 SUMP ELEV. = 836.15
CATCH BASIN #114 (DEMO) RM ELEV. = 850.35 6" VCP SW INV. = 848.23 TOP OF DEBRIS ELEV. = 848.23	STORM MANHOLE #141 RM ELEV. = 839.97 18" RCP NW INV. = 834.70 18" RCP E INV. = 834.52 4" PVC SE INV. = 835.11 SUMP ELEV. = 846.52
CATCH BASIN #115 (DEMO) RM ELEV. = 845.89 4" PVC SE INV. = 845.55 4" PVC SW INV. = 848.52 SUMP ELEV. = 846.43	STORM MANHOLE #142 RM ELEV. = 841.24 12" RCP NE INV. = 834.56 18" RCP S INV. = 834.18 18" RCP W INV. = 834.14
CATCH BASIN #116 (DEMO) RM ELEV. = 850.06 12" RCP NE INV. = 846.01 4" VCP NW INV. = 846.11 TOP OF DEBRIS ELEV. = 845.76	CATCH BASIN #143 RM ELEV. = 845.01 10" RCP N INV. = 835.36 12" RCP NW INV. = 835.34 SUMP ELEV. = 835.02
CATCH BASIN #117 RM ELEV. = 850.01 12" RCP NE INV. = 845.88 TOP OF DEBRIS ELEV. = 845.88	CATCH BASIN #144 RM ELEV. = 841.65 6" VCP NE INV. = 840.41 12" RCP SW INV. = 845.77 12" RCP W INV. = 837.38 SUMP ELEV. = 836.75
STORM MANHOLE #118 RM ELEV. = 849.82 4" VCP SE INV. = 845.66 12" RCP SW INV. = 845.77 12" RCP W INV. = 845.77 (REMOVE) PROP. I.E. 12" W 845.77	STORM MANHOLE #145 RM ELEV. = 837.27 18" RCP E INV. = 832.65 6" PVC S INV. = 832.97 18" RCP W INV. = 832.63
CATCH BASIN #119 RM ELEV. = 850.01 8" RCP SW INV. = 845.94 TOP OF DEBRIS ELEV. = 844.33	CATCH BASIN #146 RM ELEV. = 836.82 6" PVC N INV. = 834.15 SUMP ELEV. = 833.47
STORM MANHOLE #120 RM ELEV. = 849.59 12" RCP N INV. = 844.58 12" RCP SE INV. = 845.08 12" RCP W INV. = 844.74 SUMP ELEV. = 844.09	CATCH BASIN #147 RM ELEV. = 837.62 12" RCP S INV. = 833.02 10" RCP W INV. = 833.13 TOP OF DEBRIS ELEV. = 833.47
STORM MANHOLE #121 RM ELEV. = 849.08 12" RCP NE INV. = 844.68 8" RCP NE INV. = 844.49 12" RCP E INV. = 840.65 12" RCP S INV. = 840.65 12" RCP SW INV. = 841.19 8" RCP W INV. = 845.02	CATCH BASIN #148 RM ELEV. = 838.03 10" RCP E INV. = 834.15 TOP OF DEBRIS ELEV. = 833.93
CATCH BASIN #122 RM ELEV. = 849.72 8" RCP E INV. = 845.86 SUMP ELEV. = 843.42	CATCH BASIN #149 RM ELEV. = 851.94 6" VCP N INV. = 847.59 6" VCP S INV. = 847.49
CATCH BASIN #123 RM ELEV. = 849.30 8" RCP SW INV. = 844.59 TOP OF DEBRIS ELEV. = 844.33	CATCH BASIN #150 RM ELEV. = 852.27 TOP OF DEBRIS ELEV. = 850.07
CATCH BASIN #124 RM ELEV. = 848.84 8" METAL E INV. = 841.49 12" RCP S INV. = 841.49 8" RCP W INV. = 845.11 SUMP ELEV. = 841.49	
CATCH BASIN #125 RM ELEV. = 848.94 8" RCP E INV. = 845.44 8" PVC NW INV. = 845.49 SUMP ELEV. = 845.49	



EX. LEGEND

● = SET 1/2" BAR WITH CAP	○ = SANITARY MANHOLE
□ = FOUND IRON AS NOTED	○ = DRAINAGE MANHOLE
— = DISTANCE NOT TO SCALE	○ = ELECTRIC MANHOLE
— = FENCE	○ = TELEPHONE MANHOLE
— = ASPHALT	○ = CATCHBASIN
— = CONCRETE	○ = SANITARY CLEANOUT
— = GRAVEL	○ = FIRE HYDRANT
— = DECK	○ = VALVE
— = ADA PLATE	○ = UTILITY POLE
— = EXISTING SPOT ELEVATION	○ = LIGHT POLE
— = EXISTING CONTOUR ELEVATION	○ = GROUND LIGHT
— = BUILDING OVERHANG	○ = TRAFFIC SIGNAL
— = GAS LINE	○ = GUY WIRE
— = UNDERGROUND TELEPHONE	○ = UTILITY PEDESTAL
— = UNDERGROUND ELECTRIC	○ = TRANSFORMER
— = OVERHEAD WIRES	○ = HANDHOLE
— = GUARDRAIL	○ = ELECTRIC METER
— = DECIDUOUS TREE	○ = GAS METER
— = CONIFEROUS TREE	○ = WATER METER
— = POST	○ = AIR CONDITIONING UNIT
— = AIR CONDITIONING UNIT	

PROPOSED LEGEND

— = PROPOSED WATER MAIN	○ = PROPOSED TOP OF CURB ELEV.
— = PROPOSED SANITARY SEWER	
— = PROPOSED STORM SEWER	
— = PROPOSED C.S. MANHOLE (EX.)	
— = UTILITY EASEMENT	
— = CENTER LINE OF ROAD	
— = ROAD RIGHT OF WAY	
— = PROPERTY LINE	
— = FIRE HYDRANT	
— = WATER VALVE	
— = THRUST BLOCK	

BENCHMARKS

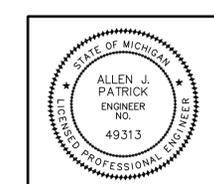
NOTE: WATER SHALL HAVE 10' HORIZONTAL SEPARATION & 18" VERTICAL SEPARATION FROM ALL SEWERS.

BENCHMARK #1 ELEV. = 852.30 (NAVD88) PK NAIL, WEST SIDE UTILITY POLE, WEST SIDE OF OKEMOS ROAD, ±42' SOUTH OF BUILDING #4661 OKEMOS ROAD.
BENCHMARK #2 ELEV. = 846.57 (NAVD88) PK NAIL, SOUTHEAST SIDE UTILITY POLE, WEST SIDE OF ARDMORE AVENUE, ON LINE WITH SOUTHERLY PARCEL LINE.
BENCHMARK #3 ELEV. = 856.59 (NAVD88) RAILROAD SPIKE, NORTHWEST SIDE UTILITY POLE, NORTHEAST QUADRANT OF ARDMORE AVENUE AND HAMILTON ROAD.

EX. SANITARY SEWER INVENTORIES

SANITARY MANHOLE #200 RM ELEV. = 845.38 8" VCP N INV. = 836.58 8" VCP SE INV. = 836.72	SANITARY MANHOLE #201 RM ELEV. = 844.30 8" VCP E INV. = 835.34 8" VCP S INV. = 835.23 8" VCP W INV. = 835.13	SANITARY MANHOLE #202 RM ELEV. = 844.30 6" VCP N INV. = 832.60 8" VCP E INV. = 831.28 8" VCP S INV. = 833.77 8" VCP W INV. = 831.17	SANITARY MANHOLE #203 RM ELEV. = 847.01 8" VCP S INV. = 834.83 6" VCP W INV. = 835.03	SANITARY MANHOLE #204 RM ELEV. = 852.05 8" VCP N INV. = 840.56	SANITARY MANHOLE #205 RM ELEV. = 849.85 8" VCP N INV. = 838.88 8" VCP E INV. = 838.97 8" VCP S INV. = 839.51 8" VCP W INV. = 839.58	SANITARY MANHOLE #206 RM ELEV. = 852.02 8" VCP N INV. = 840.63 8" VCP E INV. = 840.33 8" VCP S INV. = 840.71	SANITARY MANHOLE #207 RM ELEV. = 846.09 8" VCP E INV. = 835.95 8" VCP S INV. = 837.75 8" VCP W INV. = 837.00 8" VCP W INV. = 837.61	SANITARY MANHOLE #209 RM ELEV. = 842.15 8" VCP N INV. = 833.91 8" VCP E INV. = 829.25 8" VCP S INV. = 828.24 8" VCP W INV. = 830.50 8" VCP W INV. = 828.22	SANITARY MANHOLE #210 RM ELEV. = 839.83 8" VCP N INV. = 829.25 8" VCP E INV. = 829.30 8" VCP S INV. = 828.26 8" VCP W INV. = 828.22	SANITARY MANHOLE #211 RM ELEV. = 849.82 8" VCP N INV. = 828.24 8" VCP E INV. = 830.50 8" VCP S INV. = 828.26 8" VCP W INV. = 828.22	SANITARY MANHOLE #212 RM ELEV. = 853.37 8" VCP E INV. = 837.05 8" VCP S INV. = 836.88 8" VCP W INV. = 836.98	SANITARY MANHOLE #213 RM ELEV. = 854.01 6" VCP N INV. = 841.73 8" VCP W INV. = 841.31
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- ① DENOTES NUMBER OF EXISTING PARKING SPACES
- 1 DENOTES NUMBER OF B/F SPACES
- VA DENOTES VAN ACCESS B/F SPACES
- 0 DENOTES PROPOSED NUMBER OF 9' x 20' PARKING SPACES



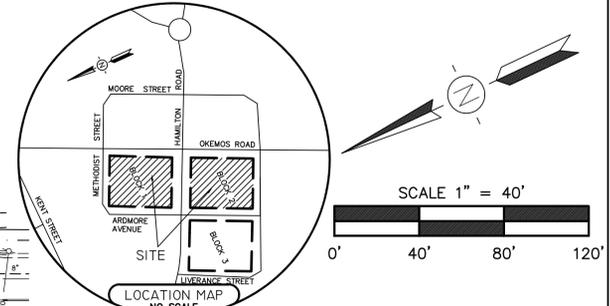
REVISIONS 1-31-22 SUBMITTAL 10-7-22 SUBMITTAL		KEBS, INC. KYES ENGINEERING 2116 HASLETT ROAD, HASLETT, MI 48840 PH. 517-339-1014 FAX. 517-339-8047 Marshall Office Ph. 269-781-9800	
SCALE: 1" = 40' DATE: 4-14-19 AUTHORIZED BY: VILLAGE OF OKEMOS, LLC		DESIGNER: PROJECT MGR. SHEET 3 OF 16 JOB #: 99191	



E-93725-MUPD-4-12-19 SURVEY#93725ALT

CONSTRUCTION PLANS FOR: Village of Okemos

MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN

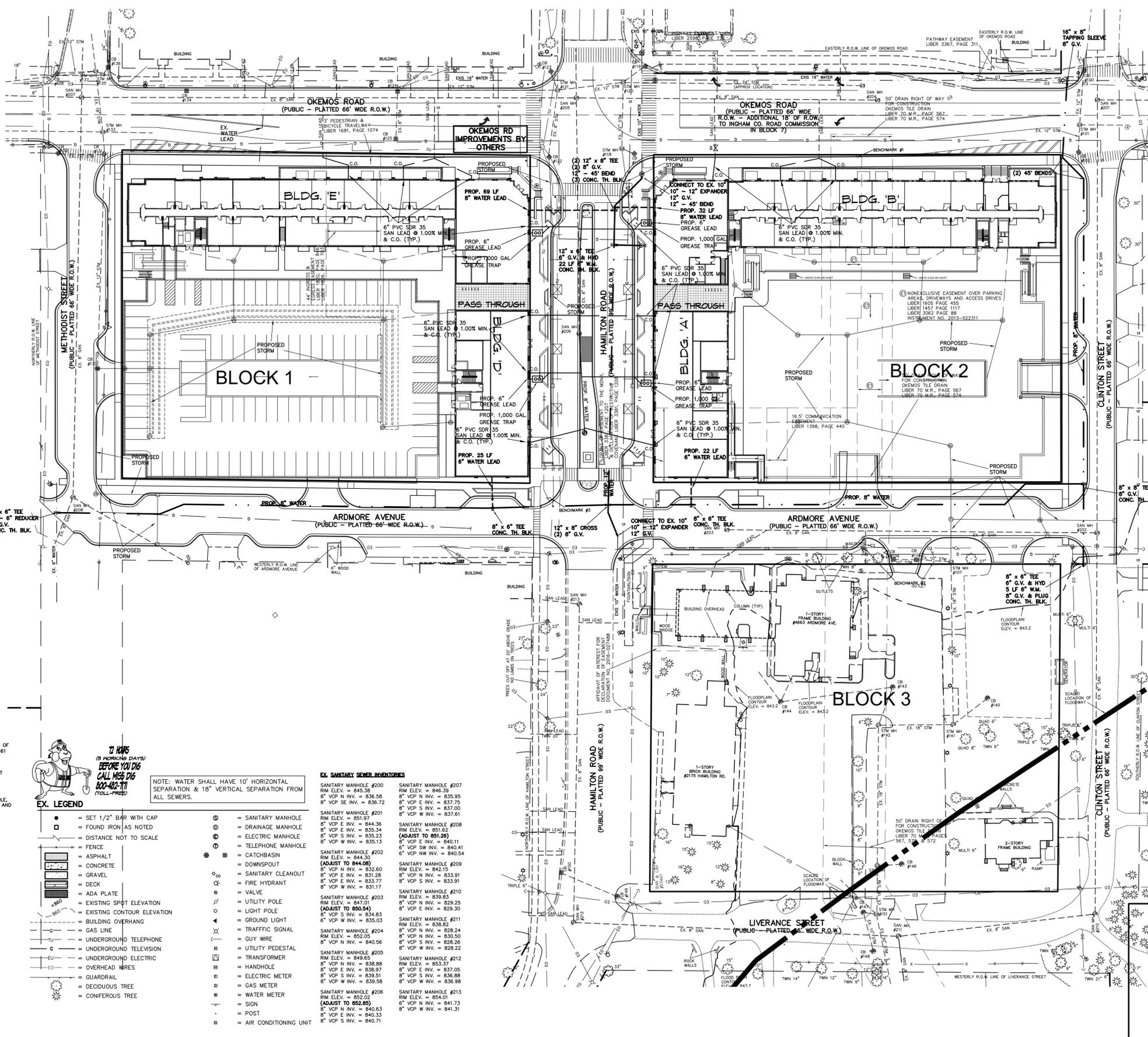
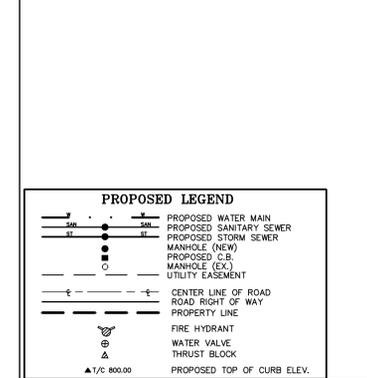
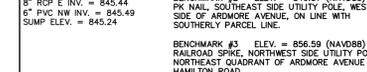


EX. STORM SEWER INVENTORIES

CATCH BASIN #100 (DEMO) RM ELEV. = 851.88 8" RCP N INV. = 847.69 TOP OF DEBRIS ELEV. = 847.66 SUMP ELEV. = 846.19	CATCH BASIN #126 (DEMO) RM ELEV. = 846.24 8" PVC N INV. = 844.50 TOP OF DEBRIS ELEV. = 846.15
STORM MANHOLE #101 RM ELEV. = 852.29 12" RCP E INV. = 846.78 15" RCP S ELEV. = 846.59 12" RCP N INV. = 846.90 TOP OF DEBRIS ELEV. = 846.75	CATCH BASIN #127 (DEMO) RM ELEV. = 846.24 8" PVC N INV. = 844.49 SUMP ELEV. = 844.04
CATCH BASIN #102 RM ELEV. = 851.85 12" RCP E INV. = 847.33 TOP OF DEBRIS ELEV. = 847.35	CATCH BASIN #128 (DEMO) RM ELEV. = 844.24 8" VCP NE INV. = 844.05 8" PVC S INV. = 844.05 TOP OF DEBRIS ELEV. = 844.04
CATCH BASIN #103 (DEMO) RM ELEV. = 852.09 SW RESTRICTOR PLATE INV. = 849.23 12" SQUARE OPENING INV. = 849.13 SUMP ELEV. = 846.89	CATCH BASIN #129 (DEMO) RM ELEV. = 848.81 4" S INV. = 845.28 12" RCP NW INV. = 845.19 SUMP ELEV. = 844.81
CATCH BASIN #104 (DEMO) RM ELEV. = 851.00 8" RCP N INV. = 847.68 TOP OF WATER ELEV. = 847.68 SUMP ELEV. = 846.60	CATCH BASIN #130 (DEMO) RM ELEV. = 846.88 12" RCP E INV. = 844.91 8" VCP SW INV. = 842.60 SUMP ELEV. = 843.98 PROP. I.E. 12" NW/S 844.93
CATCH BASIN #105 (DEMO) RM ELEV. = 849.67 6" VCP NE INV. = 845.07 8" RCP N INV. = 844.91 SUMP ELEV. = 841.17	CATCH BASIN #131 RM ELEV. = 846.24 15" RCP N INV. = 840.99 12" RCP E INV. = 839.05 12" RCP SW INV. = 842.60 12" RCP S INV. = 840.04 SUMP ELEV. = 838.96
CATCH BASIN #106 (DEMO) RM ELEV. = 850.60 8" PVC W TOP OF PIPE ELEV. = 849.12 TOP OF DEBRIS ELEV. = 848.80	CATCH BASIN #132 RM ELEV. = 846.00 15" RCP S INV. = 841.09 SUMP ELEV. = 838.70
STORM MANHOLE #107 RM ELEV. = 845.42 12" RCP NE INV. = 840.22 12" RCP NW INV. = 838.54 (REMOVE) 15" RCP S INV. = 837.26 PROP. I.E. 18" SE 838.75	STORM MANHOLE #133 RM ELEV. = 846.58 12" RCP N INV. = 838.68 12" RCP S INV. = 840.04 15" RCP W INV. = 838.23
CATCH BASIN #108 RM ELEV. = 844.38 10" RCP N INV. = 840.43 10" RCP S INV. = 840.39 TOP OF DEBRIS ELEV. = 840.38	CATCH BASIN #134 RM ELEV. = 846.71 TOP OF DEBRIS ELEV. = 845.41
CATCH BASIN #109 RM ELEV. = 844.37 10" RCP S INV. = 840.72 TOP OF DEBRIS ELEV. = 840.47	STORM MANHOLE #135 RM ELEV. = 846.07 12" RCP NE INV. = 840.73 12" RCP SE INV. = 842.62 SUMP ELEV. = 838.56
CATCH BASIN #110 (DEMO) RM ELEV. = 844.72 12" RCP S INV. = 839.24 12" RCP SW INV. = 839.01 SUMP ELEV. = 838.12	CATCH BASIN #136 RM ELEV. = 846.68 12" RCP S INV. = 843.69 12" RCP NW INV. = 842.60 SUMP ELEV. = 840.92
CATCH BASIN #111 (DEMO) RM ELEV. = 844.66 12" RCP S INV. = 839.47 SUMP ELEV. = 839.06	STORM MANHOLE #137 RM ELEV. = 846.55 12" RCP N INV. = 841.45 18" RCP N INV. = 833.92 24" RCP E INV. = 833.83 12" RCP SW INV. = 840.56 18" RCP W INV. = 834.37
CATCH BASIN #112 (DEMO) RM ELEV. = 850.32 4" VCP E INV. = 847.30 6" VCP W INV. = 847.39 SUMP ELEV. = 847.22	CATCH BASIN #138 RM ELEV. = 846.01 12" RCP S INV. = 841.59 SUMP ELEV. = 840.09
CATCH BASIN #113 (DEMO) RM ELEV. = 851.08 6" VCP W INV. = 848.40 TOP OF DEBRIS ELEV. = 848.38	CATCH BASIN #140 RM ELEV. = 836.40 SUMP ELEV. = 836.15
CATCH BASIN #114 (DEMO) RM ELEV. = 850.55 6" VCP SW INV. = 848.23 TOP OF DEBRIS ELEV. = 848.23	STORM MANHOLE #141 RM ELEV. = 839.97 18" RCP NW INV. = 834.70 18" RCP E INV. = 834.52 4" PVC SE INV. = 848.55 6" PVC SW INV. = 848.52 SUMP ELEV. = 846.43
CATCH BASIN #115 (DEMO) RM ELEV. = 850.89 4" PVC SE INV. = 848.55 6" PVC SW INV. = 848.52 SUMP ELEV. = 846.43	STORM MANHOLE #142 RM ELEV. = 841.24 12" RCP SE INV. = 834.56 18" RCP S INV. = 834.18 18" RCP W INV. = 834.14
CATCH BASIN #116 (DEMO) RM ELEV. = 850.06 12" RCP NE INV. = 846.01 4" VCP NW INV. = 845.11 TOP OF DEBRIS ELEV. = 845.76	CATCH BASIN #143 RM ELEV. = 846.02 10" RCP N INV. = 835.36 12" RCP NW INV. = 835.34 SUMP ELEV. = 835.34
CATCH BASIN #117 RM ELEV. = 850.01 12" RCP NE INV. = 845.88 TOP OF DEBRIS ELEV. = 845.88	CATCH BASIN #144 RM ELEV. = 841.65 6" PVC N INV. = 840.41 12" RCP SE INV. = 838.15 10" RCP S INV. = 837.38 SUMP ELEV. = 836.75 PROP. I.E. 12" W 845.77
CATCH BASIN #118 RM ELEV. = 849.82 12" RCP E INV. = 845.66 12" RCP SW INV. = 845.77 12" RCP W INV. = 845.77 (REMOVE) 8" VCP W INV. = 845.77 PROP. I.E. 12" W 845.77	STORM MANHOLE #145 RM ELEV. = 837.27 18" RCP E INV. = 832.65 6" PVC S INV. = 832.97 18" RCP NW INV. = 832.63
CATCH BASIN #119 RM ELEV. = 849.25 12" RCP NW INV. = 845.94 SUMP ELEV. = 844.78	CATCH BASIN #146 RM ELEV. = 836.82 6" PVC N INV. = 834.15 SUMP ELEV. = 833.47
STORM MANHOLE #120 RM ELEV. = 849.59 12" RCP N INV. = 844.58 12" RCP SE INV. = 845.08 12" RCP W INV. = 844.74 SUMP ELEV. = 844.09	CATCH BASIN #147 RM ELEV. = 837.62 12" RCP S INV. = 833.02 10" RCP W INV. = 833.13 TOP OF DEBRIS ELEV. = 833.47
STORM MANHOLE #121 RM ELEV. = 840.68 12" RCP NE INV. = 844.49 12" RCP E INV. = 840.65 12" RCP S INV. = 840.65 12" RCP SW INV. = 841.19 8" RCP W INV. = 845.02	CATCH BASIN #148 RM ELEV. = 838.03 12" RCP S INV. = 834.15 TOP OF DEBRIS ELEV. = 833.93
CATCH BASIN #122 RM ELEV. = 849.72 8" RCP E INV. = 845.86 SUMP ELEV. = 843.42	CATCH BASIN #149 RM ELEV. = 851.94 6" VCP N INV. = 847.59 6" VCP S INV. = 847.49 SUMP ELEV. = 843.42
CATCH BASIN #123 RM ELEV. = 849.30 8" RCP SW INV. = 844.59 TOP OF DEBRIS ELEV. = 844.33	CATCH BASIN #150 RM ELEV. = 852.27 TOP OF DEBRIS ELEV. = 850.07

BENCHMARKS

CATCH BASIN #125 RM ELEV. = 848.94 8" RCP N INV. = 845.44 8" PVC NW INV. = 845.49 SUMP ELEV. = 844.24	BENCHMARK #1 ELEV. = 852.30 (NAV088) PK NAIL, WEST SIDE UTILITY POLE, WEST SIDE OF OKEMOS ROAD, 242' SOUTH OF BUILDING #4681 OKEMOS ROAD.
CATCH BASIN #125 RM ELEV. = 848.94 8" RCP N INV. = 845.44 8" PVC NW INV. = 845.49 SUMP ELEV. = 844.24	BENCHMARK #2 ELEV. = 846.57 (NAV088) PK NAIL, SOUTHWEST SIDE UTILITY POLE, WEST SIDE OF ARDMORE AVENUE, ON LINE WITH SOUTHERLY PARCEL LINE.
CATCH BASIN #125 RM ELEV. = 848.94 8" RCP N INV. = 845.44 8" PVC NW INV. = 845.49 SUMP ELEV. = 844.24	BENCHMARK #3 ELEV. = 856.59 (NAV088) RAILROAD SPIKE, NORTHWEST SIDE UTILITY POLE, NORTHEAST QUADRANT OF ARDMORE AVENUE AND HAMILTON ROAD.



WATER MAIN QUANTITIES

ITEM	SIZE	AMOUNT
CL 54 W.M.	12"	298 LF
CL 54 W.M.	8"	1,237 LF
CL 54 W.M.	6"	27 LF
FIRE LINE	8"	101 LF
FIRE LINE	6"	47 LF
HYDRANTS	RELOCATED	2
12" GV	12"	2
8" GV	8"	8
6" GV	6"	3
LIVE TAP	16" x 8"	1
CROSS	12" x 8"	1
TEE	12" x 8"	2
TEE	12" x 6"	1
TEE	8" x 6"	3
TEE	6" x 6"	1
CONNECTIONS	8"	2
CONNECTIONS	6"	2
45" BEND	12"	2
22.5" BEND	12"	2
45" BEND	8"	4
22.5" BEND	8"	2
EXPANDER	10" - 12"	2
REDUCER	8" - 6"	1

NOTE: ALL PROPOSED SANITARY EXCEPT FOR LEADS SHALL HAVE A 20' EASEMENT

NOTE: ALL PROPOSED WATER MAIN EXCEPT FOR LEADS SHALL HAVE A 20' EASEMENT

NOTE: WATER SHALL HAVE 10" HORIZONTAL SEPARATION & 18" VERTICAL SEPARATION FROM ALL SEWERS.

NOTES PER MERIDIAN TOWNSHIP REQUIREMENTS:
ABANDON ALL EX. WATER LEADS NOT BEING USED.
ABANDON ALL EX. SANITARY SEWER LEADS NOT BEING USED.
ALL EX. HYDRANTS IN VICINITY OF PROJECT SHALL BE RETROFITTED WITH STORZ NOZZLES.

EX. SANITARY SEWER INVENTORIES

SANITARY MANHOLE #200 RM ELEV. = 845.38 8" VCP N INV. = 836.58 8" VCP SE INV. = 836.72 8" VCP S INV. = 837.00 8" VCP W INV. = 837.61	SANITARY MANHOLE #207 RM ELEV. = 846.39 8" VCP N INV. = 835.95 8" VCP E INV. = 835.82 8" VCP S INV. = 837.00 8" VCP W INV. = 837.61
SANITARY MANHOLE #201 RM ELEV. = 851.97 8" VCP N INV. = 844.36 8" VCP E INV. = 835.34 8" VCP S INV. = 835.23 8" VCP W INV. = 835.15	SANITARY MANHOLE #208 RM ELEV. = 851.62 8" VCP N INV. = 835.95 8" VCP E INV. = 835.82 8" VCP S INV. = 837.00 8" VCP W INV. = 837.61
SANITARY MANHOLE #202 RM ELEV. = 844.08 8" VCP N INV. = 832.60 8" VCP E INV. = 831.28 8" VCP S INV. = 833.77 8" VCP W INV. = 831.17	SANITARY MANHOLE #209 RM ELEV. = 842.15 8" VCP N INV. = 833.91 8" VCP S INV. = 833.91 8" VCP W INV. = 840.41
SANITARY MANHOLE #203 RM ELEV. = 847.01 8" VCP N INV. = 834.83 8" VCP E INV. = 835.03 8" VCP S INV. = 835.03	SANITARY MANHOLE #210 RM ELEV. = 839.83 8" VCP N INV. = 829.25 8" VCP E INV. = 829.30 8" VCP S INV. = 829.30
SANITARY MANHOLE #204 RM ELEV. = 852.05 8" VCP N INV. = 840.56 8" VCP S INV. = 839.57 8" VCP W INV. = 839.58	SANITARY MANHOLE #211 RM ELEV. = 838.92 8" VCP N INV. = 828.24 8" VCP E INV. = 830.50 8" VCP S INV. = 828.26 8" VCP W INV. = 828.22
SANITARY MANHOLE #205 RM ELEV. = 849.65 8" VCP N INV. = 838.88 8" VCP E INV. = 838.97 8" VCP S INV. = 839.51 8" VCP W INV. = 839.58	SANITARY MANHOLE #212 RM ELEV. = 853.37 8" VCP N INV. = 837.05 8" VCP E INV. = 836.88 8" VCP S INV. = 836.98 8" VCP W INV. = 836.98
SANITARY MANHOLE #206 RM ELEV. = 852.02 8" VCP N INV. = 840.83 8" VCP E INV. = 840.33 8" VCP S INV. = 840.71	SANITARY MANHOLE #213 RM ELEV. = 854.01 8" VCP N INV. = 841.73 8" VCP E INV. = 841.31

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SANITARY MANHOLE #205 RM ELEV. = 849.65 8" VCP N INV. = 838.88 8" VCP E INV. = 838.97 8" VCP S INV. = 839.51 8" VCP W INV. = 839.58	SANITARY MANHOLE #212 RM ELEV. = 853.37 8" VCP N INV. = 837.05 8" VCP E INV. = 836.88 8" VCP S INV. = 836.98 8" VCP W INV. = 836.98
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SANITARY MANHOLE #205 RM ELEV. = 849.65 8" VCP N INV. = 838.88 8" VCP E INV. = 838.97 8" VCP S INV. = 839.51 8" VCP W INV. = 839.58	SANITARY MANHOLE #212 RM ELEV. = 853.37 8" VCP N INV. = 837.05 8" VCP E INV. = 836.88 8" VCP S INV. = 836.98 8" VCP W INV. = 836.98
SANITARY MANHOLE #206 RM ELEV. = 852.02 8" VCP N INV. = 840.83 8" VCP E INV. = 840.33 8" VCP S INV. = 840.71	SANITARY MANHOLE #213 RM ELEV. = 854.01 8" VCP N INV. = 841.73 8" VCP E INV. = 841.31

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SANITARY MANHOLE #201 RM ELEV. = 851.97 8" VCP N INV. = 844.36 8" VCP E INV. = 835.34 8" VCP S INV. = 835.23 8" VCP W INV. = 835.15	SANITARY MANHOLE #208 RM ELEV. = 851.62 8" VCP N INV. = 835.95 8" VCP E INV. = 835.82 8" VCP S INV. = 837.00 8" VCP W INV. = 837.61
SANITARY MANHOLE #202 RM ELEV. = 844.08 8" VCP N INV. = 832.60 8" VCP E INV. = 831.28 8" VCP S INV. = 833.77 8" VCP W INV. = 831.17	SANITARY MANHOLE #209 RM ELEV. = 842.15 8" VCP N INV. = 833.91 8" VCP S INV. = 833.91 8" VCP W INV. = 840.41
SANITARY MANHOLE #203 RM ELEV. = 847.01 8" VCP N INV. = 834.83 8" VCP E INV. = 835.03 8" VCP S INV. = 835.03	SANITARY MANHOLE #210 RM ELEV. = 839.83 8" VCP N INV. = 829.25 8" VCP E INV. = 829.30 8" VCP S INV. = 829.30
SANITARY MANHOLE #204 RM ELEV. = 852.05 8" VCP N INV. = 840.56 8" VCP S INV. = 839.57 8" VCP W INV. = 839.58	SANITARY MANHOLE #211 RM ELEV. = 838.92 8" VCP N INV. = 828.24 8" VCP E INV. = 830.50 8" VCP S INV. = 828.26 8" VCP W INV. = 828.22
SANITARY MANHOLE #205 RM ELEV. = 849.65 8" VCP N INV. = 838.88 8" VCP E INV. = 838.97 8" VCP S INV. = 839.51 8" VCP W INV. = 839.58	SANITARY MANHOLE #212 RM ELEV. = 853.37 8" VCP N INV. = 837.05 8" VCP E INV. = 836.88 8" VCP S INV. = 836.98 8" VCP W INV. = 836.98
SANITARY MANHOLE #206 RM ELEV. = 852.02 8" VCP N INV. = 840.83 8" VCP E INV. = 840.33 8" VCP S INV. = 840.71	SANITARY MANHOLE #213 RM ELEV. = 854.01 8" VCP N INV. = 841.73 8" VCP E INV. = 841.31

REVISIONS

1-31-22 SUBMITTAL	
6-7-22 PRELIM	
8-29-22 MUPD	
10-7-22 SUBMITTAL	

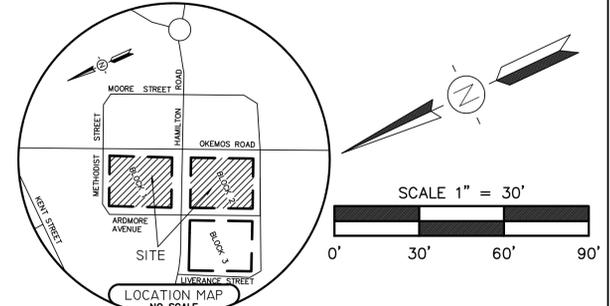
KEBS, INC. KYES ENGINEERING
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PH. 517-339-1014 FAX. 517-339-8047

Marshall Office
Ph. 269-781-9800

Village of Okemos
UTILITY PLAN

SCALE: 1" = 40' DESIGNER: ALLEN J. PATRICK, ENGINEER NO. 49313 APPROVED BY: AJP
DATE: 4-14-19 PROJECT MGR. AJP SHEET 4 OF 16
AUTHORIZED BY: VILLAGE OF OKEMOS, LLC JOB #: 99191

CONSTRUCTION PLANS FOR: Village of Okemos MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN



PROPOSED STORM INVENTORY

CB#1 RIM 852.45 I.E. 12" SE 848.45	ST#8 (CS-4) RIM 850.80 I.E. 12" NE/SW 845.04	LB#12A RIM 852.75 I.E. 12" NW 848.75	CB#18 RIM 844.40 I.E. 12" E 840.40	CB#24 RIM 845.40 I.E. 12" SW/NW 839.86 I.E. 12" SE 840.20	CB#27 RIM 845.50 I.E. 12" NE 840.50
CB#2 RIM 850.85 I.E. 12" NW/SE 846.85	ST#9 RIM 852.00 I.E. 48" NW/SE 845.14 I.E. 12" NE 845.14 I.E. 12" SW 848.00	CB#13 RIM 852.45 I.E. 48" SE 845.92 I.E. 12" SW 848.45	CB#19 RIM 845.44 I.E. 12" SW 839.70 I.E. 15" SE 838.38 I.E. 18" NW 838.38	CB#25 RIM 845.40 I.E. 12" SW 840.40 I.E. 12" E 841.40	TRENCH#1 RIM 852.50 I.E. 12" NE 848.50
CB#3 RIM 852.45 I.E. 12" SE 848.45	CB#10 RIM 851.70 I.E. 48" NW/SW 845.21	LB#13A RIM 844.45 I.E. 12" NE 848.75	ST#20 (CS-4) RIM 846.50 I.E. 15" NW/SE 838.54	CB#25A RIM 853.00 I.E. 12" W 842.05	TRENCH#2 RIM 846.60 I.E. 12" SE 842.60
CB#4 RIM 850.85 I.E. 12" NW/SE 846.85	ST#11 RIM 852.45 I.E. 48" NE/SW 845.39 I.E. 12" SE 848.45	CB#14 RIM 851.80 I.E. 48" SE 845.41	CB#22 RIM 845.40 I.E. 15" SE 839.51 I.E. 12" NE 840.20	CB#26 RIM 845.30 I.E. 12" NE/SW 840.16 I.E. 12" SE 841.30	
CB#5 RIM 850.45 I.E. 12" SE 846.45	LB#11A RIM 852.75 I.E. 12" NW 848.75	CB#15 RIM 844.45 I.E. 12" NE 840.45	ST#16 RIM 844.70 I.E. 12" SW/NE 840.10 I.E. 12" W/SE 840.10	LB#26A RIM 855.50 I.E. 12" NE 851.00 I.E. 12" NW 841.80	
CB#6 RIM 850.45 I.E. 12" NW/NE 846.25	CB#12 RIM 852.35 I.E. 48" NW/NE 845.70 I.E. 12" SE 848.35	ST#17 RIM 851.13 I.E. 12" SW/SE 846.00	CB#23 RIM 845.40 I.E. 12" SW 840.40	LB#26B RIM 855.50 I.E. 12" SW 851.50	

EX. STORM SEWER INVENTORIES

CATCH BASIN #100 RIM ELEV. = 851.88 8" RCP N INV. = 847.69 TOP OF DEBRIS ELEV. = 847.66 SUMP ELEV. = 846.19	CATCH BASIN #127 (DEMO) RIM ELEV. = 852.29 12" RCP E INV. = 846.78 15" RCP S ELEV. = 846.59 12" RCP W INV. = 846.90 TOP OF DEBRIS ELEV. = 846.75	CATCH BASIN #128 (DEMO) RIM ELEV. = 844.05 8" VCP NE INV. = 844.05 8" VCP S INV. = 844.05 TOP OF DEBRIS ELEV. = 844.04	CATCH BASIN #129 (DEMO) RIM ELEV. = 848.81 4" S INV. = 845.28 12" RCP SE INV. = 845.19 SUMP ELEV. = 844.81	CATCH BASIN #130 (ADJUST TO 849.50) RIM ELEV. = 851.00 12" RCP E INV. = 844.91 12" RCP SW INV. = 844.93 (REMOVE) SUMP ELEV. = 843.68 PROP. I.E. 12" NW/S 844.93	CATCH BASIN #131 RIM ELEV. = 846.24 15" RCP N INV. = 840.99 15" RCP E INV. = 840.99 12" RCP S INV. = 844.91 SUMP ELEV. = 844.17	CATCH BASIN #132 RIM ELEV. = 848.80 8" VCP TOP OF PIPE ELEV. = 849.12 TOP OF DEBRIS ELEV. = 848.80	CATCH BASIN #133 RIM ELEV. = 846.58 12" RCP N INV. = 838.68 12" RCP E INV. = 838.68 12" RCP S INV. = 840.04 15" RCP W INV. = 838.23	CATCH BASIN #134 RIM ELEV. = 846.71 TOP OF DEBRIS ELEV. = 845.41	CATCH BASIN #135 RIM ELEV. = 846.07 12" RCP NE INV. = 840.73 12" RCP SE INV. = 842.62 SUMP ELEV. = 838.56	CATCH BASIN #136 RIM ELEV. = 846.68 12" RCP E INV. = 843.69 12" RCP NW INV. = 845.19 SUMP ELEV. = 840.92	CATCH BASIN #137 RIM ELEV. = 846.55 12" RCP N INV. = 841.45 18" RCP N INV. = 833.92 24" RCP E INV. = 833.83 12" RCP SW INV. = 840.56 18" RCP W INV. = 834.37 SUMP ELEV. = 847.22	CATCH BASIN #138 RIM ELEV. = 846.01 12" RCP S INV. = 841.59 SUMP ELEV. = 840.09	CATCH BASIN #140 RIM ELEV. = 838.40 8" VCP NW INV. = 836.40 SUMP ELEV. = 836.15	CATCH BASIN #141 RIM ELEV. = 839.97 18" RCP NW INV. = 834.70 18" RCP E INV. = 834.52 4" VCP SE INV. = 848.55 SUMP ELEV. = 848.52	CATCH BASIN #142 RIM ELEV. = 841.24 12" RCP NE INV. = 834.56 18" RCP S INV. = 834.18 18" RCP W INV. = 834.14	CATCH BASIN #143 RIM ELEV. = 845.01 12" RCP N INV. = 835.36 12" RCP NW INV. = 835.34 SUMP ELEV. = 835.02	CATCH BASIN #144 RIM ELEV. = 841.65 6" VCP NE INV. = 840.41 4" VCP SE INV. = 845.66 12" RCP SW INV. = 845.77 12" RCP S INV. = 837.38 SUMP ELEV. = 836.75 PROP. I.E. 12" W 845.77	CATCH BASIN #145 RIM ELEV. = 837.27 12" RCP E INV. = 832.65 6" VCP S INV. = 832.97 18" RCP W INV. = 832.63	CATCH BASIN #146 RIM ELEV. = 849.59 12" RCP N INV. = 844.58 12" RCP SE INV. = 843.15 SUMP ELEV. = 833.47	CATCH BASIN #147 RIM ELEV. = 837.62 12" RCP S INV. = 833.02 10" RCP W INV. = 833.13 TOP OF DEBRIS INV. = 833.47	CATCH BASIN #148 RIM ELEV. = 840.65 10" RCP E INV. = 834.15 12" RCP S INV. = 843.19 TOP OF DEBRIS INV. = 833.93	CATCH BASIN #149 RIM ELEV. = 851.94 6" VCP N INV. = 847.59 6" VCP S INV. = 847.49	CATCH BASIN #150 RIM ELEV. = 852.27 TOP OF DEBRIS INV. = 850.07	CATCH BASIN #151 RIM ELEV. = 844.59 8" RCP SW INV. = 844.33 TOP OF DEBRIS ELEV. = 844.33	CATCH BASIN #152 RIM ELEV. = 846.90 8" METAL E INV. = 841.49 12" RCP S INV. = 841.49 8" RCP W INV. = 845.11 SUMP ELEV. = 841.49	CATCH BASIN #153 RIM ELEV. = 845.44 8" RCP E INV. = 845.49 SUMP ELEV. = 841.49	CATCH BASIN #154 RIM ELEV. = 845.44 8" RCP E INV. = 845.49 SUMP ELEV. = 841.49
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EX. LEGEND

○ = SET 1/2" BAR WITH CAP	○ = SANITARY MANHOLE
○ = FOUND IRON AS NOTED	○ = DRAINAGE MANHOLE
○ = DISTANCE NOT TO SCALE	○ = ELECTRIC MANHOLE
○ = FENCE	○ = TELEPHONE MANHOLE
○ = ASPHALT	○ = CATCHBASIN
○ = CONCRETE	○ = DOWNSPOUT
○ = GRAVEL	○ = SANITARY CLEANOUT
○ = DECK	○ = FIRE HYDRANT
○ = ADA PLATE	○ = VALVE
○ = EXISTING SPOT ELEVATION	○ = UTILITY POLE
○ = EXISTING CONTOUR ELEVATION	○ = LIGHT POLE
○ = BUILDING OVERHANG	○ = GROUND LIGHT
○ = GAS LINE	○ = TRAFFIC SIGNAL
○ = UNDERGROUND TELEPHONE	○ = GUY WIRE
○ = UNDERGROUND TELEVISION	○ = UTILITY PEDESTAL
○ = OVERHEAD WIRES	○ = TRANSFORMER
○ = GUARDRAIL	○ = HANDHOLE
○ = DECIDUOUS TREE	○ = ELECTRIC METER
○ = CONIFEROUS TREE	○ = GAS METER
	○ = WATER METER
	○ = SOIL
	○ = POST
	○ = AIR CONDITIONING UNIT

PROPOSED LEGEND

— W —	PROPOSED WATER MAIN
— S —	PROPOSED SANITARY SEWER
— ST —	PROPOSED STORM SEWER
— C —	MANHOLE (NEW)
— ○ —	PROPOSED C.S. MANHOLE (EX.)
— ○ —	UTILITY EASEMENT
— ○ —	CENTER LINE OF ROAD
— ○ —	ROAD RIGHT OF WAY
— ○ —	PROPERTY LINE
— ○ —	FIRE HYDRANT
— ○ —	WATER VALVE
— ○ —	THRUST BLOCK
— ○ —	PROPOSED TOP OF CURB ELEV.

BENCHMARKS

BENCHMARK #1 ELEV. = 852.30 (NAVD88)
PK NAIL, WEST SIDE UTILITY POLE, WEST SIDE OF OKEMOS ROAD, ±42' SOUTH OF BUILDING #4661 OKEMOS ROAD.

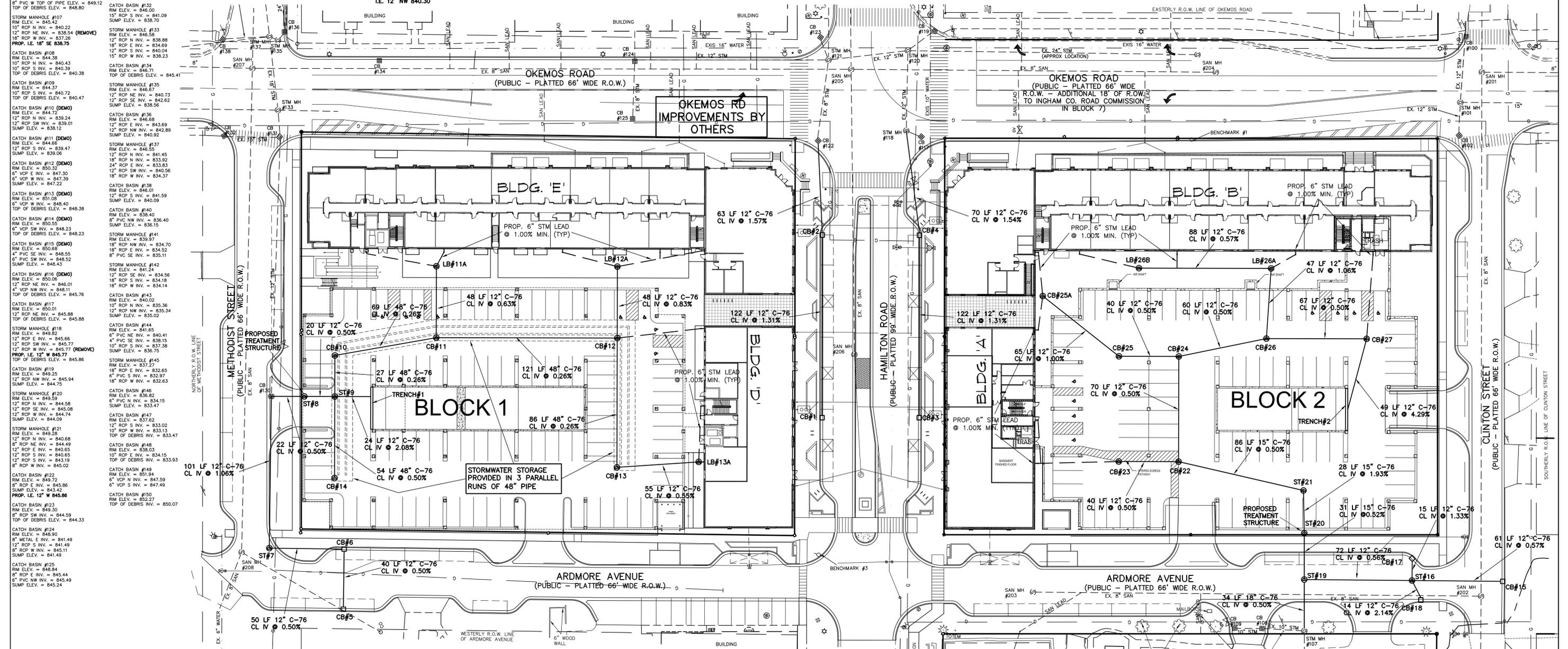
BENCHMARK #2 ELEV. = 846.57 (NAVD88)
PK NAIL, SOUTHEAST SIDE UTILITY POLE, WEST SIDE OF ARDMORE AVENUE, ON LINE WITH SOUTHERLY PARCEL LINE.

BENCHMARK #3 ELEV. = 856.59 (NAVD88)
RAILROAD SPIKE, NORTHWEST SIDE UTILITY POLE, NORTHEAST QUADRANT OF ARDMORE AVENUE AND HAMILTON ROAD.

12 HOURS BEFORE YOU DIG CALL MISS DIG 800-482-7111 (TOLL-FREE)

EX. SANITARY SEWER INVENTORIES

SANITARY MANHOLE #200 RIM ELEV. = 845.38 8" VCP N INV. = 836.58 8" VCP SE INV. = 836.72	SANITARY MANHOLE #201 RIM ELEV. = 851.97 8" VCP E INV. = 844.36 8" VCP S INV. = 835.34 8" VCP W INV. = 835.23 8" VCP NW INV. = 835.13	SANITARY MANHOLE #202 RIM ELEV. = 844.30 8" VCP N INV. = 832.60 8" VCP E INV. = 831.28 8" VCP S INV. = 833.77 8" VCP W INV. = 831.17	SANITARY MANHOLE #203 RIM ELEV. = 847.01 8" VCP S INV. = 834.83 6" VCP W INV. = 835.03	SANITARY MANHOLE #204 RIM ELEV. = 852.05 8" VCP N INV. = 840.56	SANITARY MANHOLE #205 RIM ELEV. = 849.65 8" VCP N INV. = 838.88 8" VCP E INV. = 838.97 8" VCP S INV. = 839.51 8" VCP W INV. = 839.58	SANITARY MANHOLE #206 RIM ELEV. = 852.02 8" VCP N INV. = 840.63 8" VCP E INV. = 840.33 8" VCP W INV. = 835.13	SANITARY MANHOLE #207 RIM ELEV. = 846.09 8" VCP N INV. = 835.95 8" VCP E INV. = 837.75 8" VCP S INV. = 837.00 8" VCP W INV. = 837.61	SANITARY MANHOLE #208 RIM ELEV. = 851.62 8" VCP E INV. = 840.11 6" VCP SW INV. = 840.41	SANITARY MANHOLE #209 RIM ELEV. = 842.15 8" VCP N INV. = 833.91 8" VCP S INV. = 833.91	SANITARY MANHOLE #210 RIM ELEV. = 839.83 8" VCP E INV. = 829.30 8" VCP W INV. = 840.71	SANITARY MANHOLE #211 RIM ELEV. = 838.62 8" VCP N INV. = 828.24 8" VCP S INV. = 830.50 8" VCP W INV. = 828.22	SANITARY MANHOLE #212 RIM ELEV. = 853.37 8" VCP E INV. = 837.05 8" VCP S INV. = 836.88 8" VCP W INV. = 836.98	SANITARY MANHOLE #213 RIM ELEV. = 854.01 6" VCP N INV. = 841.73 8" VCP W INV. = 841.31
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REVISIONS	1-31-22 SUBMITTAL
	10-7-22 SUBMITTAL

KEBS, INC.
2116 HASLETT ROAD, HASLETT, MI 48840
PH. 517-339-1014 FAX. 517-339-8047

Marshall Office
Ph. 269-781-9800

Village of Okemos
STORM PLAN

SCALE: 1" = 40'

DATE: 4-14-19

AUTHORIZED BY:
VILLAGE OF OKEMOS, LLC

DESIGNER:
A.J.P.

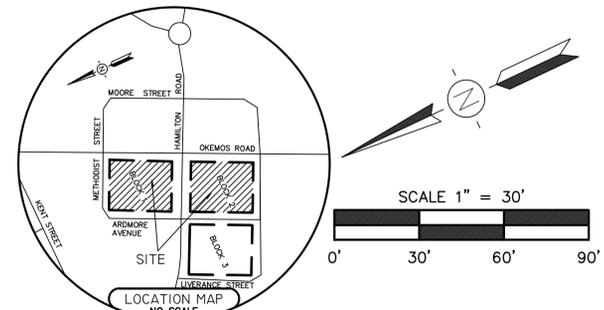
PROJECT MGR.
A.J.P.

JOB #:
99191

APPROVED BY:
A.J.P.

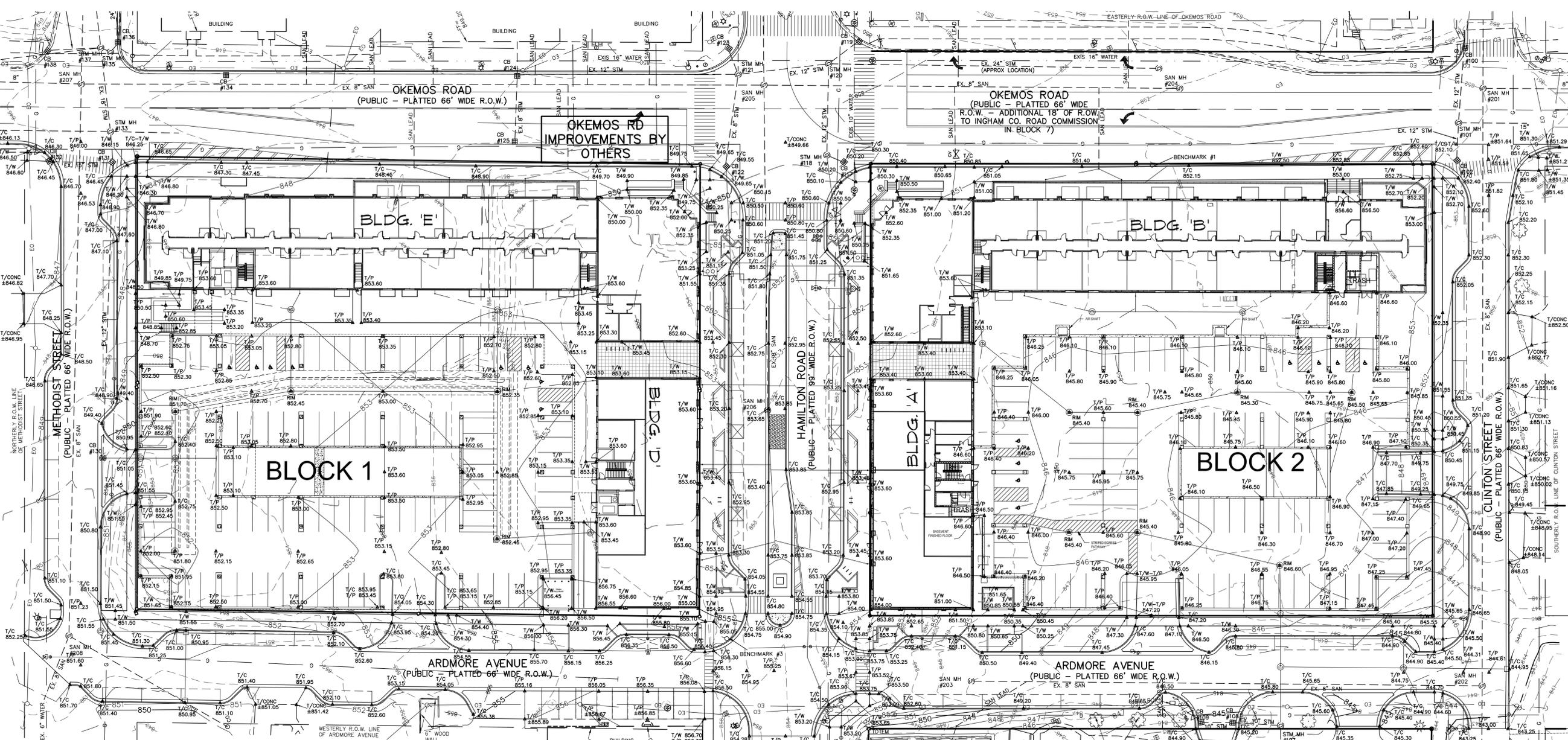
SHEET 5 OF 16

CONSTRUCTION PLANS FOR:
Village of Okemos
 MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN



EX. STORM SEWER INVENTORIES

CATCH BASIN #100 (DEMO) RM ELEV. = 851.88 8" RCP N INV. = 847.69 TOP OF DEBRIS ELEV. = 847.66 SUMP ELEV. = 846.19	CATCH BASIN #126 (DEMO) RM ELEV. = 846.24 6" PVC N INV. = 846.15 TOP OF DEBRIS ELEV. = 846.10 SUMP ELEV. = 846.19
STORM MANHOLE #101 RM ELEV. = 852.29 12" RCP E INV. = 846.78 15" RCP S ELEV. = 846.59 12" RCP W INV. = 846.90 TOP OF DEBRIS ELEV. = 846.75	CATCH BASIN #127 (DEMO) RM ELEV. = 846.24 6" PVC N INV. = 844.49 SUMP ELEV. = 844.04
CATCH BASIN #102 RM ELEV. = 851.85 12" RCP E INV. = 847.33 TOP OF DEBRIS ELEV. = 847.35	CATCH BASIN #128 (DEMO) RM ELEV. = 847.24 8" VCP N INV. = 844.05 6" PVC S INV. = 844.04 TOP OF DEBRIS ELEV. = 844.04
CATCH BASIN #103 (DEMO) RM ELEV. = 848.81 12" RCP N INV. = 845.19 SW RESTRICTOR PLATE INV. = 849.23 SW 12" SQUARE OPENING INV. = 848.13 SUMP ELEV. = 846.89	CATCH BASIN #129 (DEMO) RM ELEV. = 848.81 4" S INV. = 845.28 12" RCP NW INV. = 845.19 SUMP ELEV. = 844.81
CATCH BASIN #104 (DEMO) RM ELEV. = 851.00 12" RCP E INV. = 847.68 8" RCP N INV. = 844.91 TOP OF WATER ELEV. = 847.68 SUMP ELEV. = 846.60	CATCH BASIN #130 RM ELEV. = 848.81 12" RCP S INV. = 841.09 SUMP ELEV. = 838.90 (ADJUST TO 849.50) 12" RCP E INV. = 844.91 12" RCP SW INV. = 844.93 (REMOVE) SUMP ELEV. = 843.88 PROP. I.E. 12" NW/S 844.93
CATCH BASIN #105 (DEMO) RM ELEV. = 849.67 6" VCP NE INV. = 845.07 8" RCP S INV. = 844.91 SUMP ELEV. = 844.17	CATCH BASIN #131 RM ELEV. = 846.24 15" RCP N INV. = 840.99 15" RCP E INV. = 839.05 8" VCP SW INV. = 842.60 12" RCP W INV. = 843.06 SUMP ELEV. = 838.96
CATCH BASIN #106 (DEMO) RM ELEV. = 850.60 8" PVC W TOP OF PIPE ELEV. = 849.12 TOP OF DEBRIS ELEV. = 848.80	CATCH BASIN #132 RM ELEV. = 846.00 15" RCP S INV. = 841.09 SUMP ELEV. = 838.90
STORM MANHOLE #107 RM ELEV. = 844.37 12" RCP NE INV. = 840.22 12" RCP NW INV. = 838.54 (REMOVE) 15" RCP S INV. = 837.28 PROP. I.E. 18" SE 838.75	STORM MANHOLE #133 RM ELEV. = 846.58 12" RCP N INV. = 838.68 8" VCP SW INV. = 834.69 12" RCP S INV. = 840.04 15" RCP W INV. = 838.23
CATCH BASIN #108 RM ELEV. = 844.38 10" RCP N INV. = 840.43 10" RCP S INV. = 840.39 TOP OF DEBRIS ELEV. = 840.38	CATCH BASIN #134 RM ELEV. = 846.71 TOP OF DEBRIS ELEV. = 845.41
CATCH BASIN #109 RM ELEV. = 844.37 10" RCP S INV. = 840.72 TOP OF DEBRIS ELEV. = 840.47	STORM MANHOLE #135 RM ELEV. = 846.68 12" RCP NE INV. = 840.73 12" RCP SE INV. = 842.62 SUMP ELEV. = 838.96
CATCH BASIN #110 (DEMO) RM ELEV. = 844.72 12" RCP N INV. = 839.24 12" RCP SW INV. = 839.01 SUMP ELEV. = 838.12	CATCH BASIN #136 RM ELEV. = 846.68 12" RCP E INV. = 843.69 8" VCP SW INV. = 842.60 SUMP ELEV. = 840.92
CATCH BASIN #111 (DEMO) RM ELEV. = 844.68 10" RCP S INV. = 839.47 SUMP ELEV. = 838.06	STORM MANHOLE #137 RM ELEV. = 846.55 12" RCP N INV. = 841.45 18" RCP N INV. = 833.92 12" RCP SW INV. = 833.83 12" RCP S INV. = 840.56 18" RCP W INV. = 834.37 SUMP ELEV. = 847.22
CATCH BASIN #112 (DEMO) RM ELEV. = 850.32 12" RCP E INV. = 847.30 6" VCP W INV. = 847.39 SUMP ELEV. = 847.22	CATCH BASIN #138 RM ELEV. = 846.01 12" RCP S INV. = 841.59 6" VCP W INV. = 840.09
CATCH BASIN #113 (DEMO) RM ELEV. = 851.00 6" VCP W INV. = 848.40 TOP OF DEBRIS ELEV. = 848.38	CATCH BASIN #140 RM ELEV. = 838.40 8" PVC NW INV. = 836.40 SUMP ELEV. = 836.15
CATCH BASIN #114 (DEMO) RM ELEV. = 850.35 6" VCP SW INV. = 848.23 TOP OF DEBRIS ELEV. = 848.23	STORM MANHOLE #141 RM ELEV. = 839.97 18" RCP NW INV. = 834.70 18" RCP E INV. = 834.52 4" PVC SE INV. = 848.55 6" PVC SW INV. = 848.52 SUMP ELEV. = 848.43
CATCH BASIN #115 (DEMO) RM ELEV. = 850.89 4" PVC SE INV. = 848.55 6" PVC SW INV. = 848.52 SUMP ELEV. = 848.43	STORM MANHOLE #142 RM ELEV. = 841.24 12" RCP NE INV. = 846.01 18" RCP S INV. = 834.18 18" RCP W INV. = 834.14 TOP OF DEBRIS ELEV. = 845.76
CATCH BASIN #116 (DEMO) RM ELEV. = 850.06 12" RCP NE INV. = 846.01 12" RCP NW INV. = 845.11 TOP OF DEBRIS ELEV. = 845.76	CATCH BASIN #143 RM ELEV. = 850.31 10" RCP N INV. = 835.36 12" RCP NW INV. = 835.34 SUMP ELEV. = 836.75
CATCH BASIN #117 RM ELEV. = 850.31 12" RCP N INV. = 845.88 TOP OF DEBRIS ELEV. = 845.88	CATCH BASIN #144 RM ELEV. = 841.65 6" VCP NE INV. = 840.41 12" RCP SE INV. = 838.15 10" RCP S INV. = 837.38 12" RCP W INV. = 845.77 (REMOVE) PROP. I.E. 12" W 845.77
STORM MANHOLE #118 RM ELEV. = 845.82 12" RCP E INV. = 845.66 12" RCP SW INV. = 845.77 12" RCP W INV. = 845.77 (REMOVE) PROP. I.E. 12" W 845.77	STORM MANHOLE #145 RM ELEV. = 837.27 18" RCP E INV. = 832.65 6" VCP S INV. = 832.97 18" RCP W INV. = 832.63
CATCH BASIN #119 RM ELEV. = 849.25 12" RCP NW INV. = 845.94 SUMP ELEV. = 844.78	CATCH BASIN #146 RM ELEV. = 836.82 12" RCP N INV. = 834.15 SUMP ELEV. = 833.47
STORM MANHOLE #120 RM ELEV. = 849.59 12" RCP S INV. = 845.08 12" RCP W INV. = 844.74 SUMP ELEV. = 844.09	CATCH BASIN #147 RM ELEV. = 837.62 12" RCP S INV. = 833.02 10" RCP W INV. = 833.13 TOP OF DEBRIS ELEV. = 833.47
STORM MANHOLE #121 RM ELEV. = 840.68 8" RCP NE INV. = 844.49 12" RCP E INV. = 840.65 10" RCP S INV. = 834.15 TOP OF DEBRIS ELEV. = 833.93 8" RCP W INV. = 845.02	CATCH BASIN #148 RM ELEV. = 851.94 6" VCP N INV. = 847.59 8" RCP E INV. = 845.86 SUMP ELEV. = 843.42 PROP. I.E. 12" W 845.86
CATCH BASIN #122 RM ELEV. = 849.72 8" RCP E INV. = 845.86 SUMP ELEV. = 843.42 PROP. I.E. 12" W 845.86	CATCH BASIN #149 RM ELEV. = 852.27 TOP OF DEBRIS INV. = 850.07
CATCH BASIN #123 RM ELEV. = 849.20 8" RCP SW INV. = 844.59 TOP OF DEBRIS ELEV. = 844.33	CATCH BASIN #150 RM ELEV. = 849.20 8" RCP SW INV. = 841.49 8" RCP W INV. = 845.11 SUMP ELEV. = 841.49
CATCH BASIN #125 RM ELEV. = 848.84 8" RCP E INV. = 845.44 8" PVC NW INV. = 845.49 SUMP ELEV. = 841.49	CATCH BASIN #151 RM ELEV. = 851.50 TOP OF DEBRIS ELEV. = 848.25



EX. LEGEND

•	SET 1/2" BAR WITH CAP	○	SANITARY MANHOLE
○	FOUND IRON AS NOTED	○	DRAINAGE MANHOLE
—	DISTANCE NOT TO SCALE	○	ELECTRIC MANHOLE
—	FENCE	○	TELEPHONE MANHOLE
—	ASPHALT	○	CATCHBASIN
—	CONCRETE	○	SANITARY CLEANOUT
—	GRAVEL	○	FIRE HYDRANT
—	DECK	○	VALVE
—	ADA PLATE	○	UTILITY POLE
—	EXISTING SPOT ELEVATION	○	LIGHT POLE
—	EXISTING CONTOUR ELEVATION	○	GROUND LIGHT
—	BUILDING OVERHANG	○	TRAFFIC SIGNAL
—	GAS LINE	○	GUY WIRE
—	UNDERGROUND TELEPHONE	○	UTILITY PEDESTAL
—	UNDERGROUND TELEVISION	○	TRANSFORMER
—	OVERHEAD WIRES	○	HANDHOLE
—	GUARDRAIL	○	ELECTRIC METER
—	DECIDUOUS TREE	○	GAS METER
—	CONIFEROUS TREE	○	WATER METER
—	POST	○	SOIL
—	AIR CONDITIONING UNIT	○	POST

PROPOSED LEGEND

—	PROPOSED WATER MAIN	—	PROPOSED STORM SEWER
—	PROPOSED SANITARY SEWER	—	PROPOSED C.B. MANHOLE (EX.)
—	PROPOSED C.B. MANHOLE (NEW)	—	UTILITY EASEMENT
—	CENTER LINE OF ROAD	—	PROPERTY LINE
—	ROAD RIGHT OF WAY	—	FIRE HYDRANT
—	WATER VALVE	—	THRUST BLOCK
—	PROPOSED TOP OF CURB ELEV.	—	

BENCHMARKS

BENCHMARK #1 ELEV. = 852.30 (NAVD88)
PK NAIL, WEST SIDE UTILITY POLE, WEST SIDE OF OKEMOS ROAD, ±42' SOUTH OF BUILDING #4661 OKEMOS ROAD.

BENCHMARK #2 ELEV. = 846.57 (NAVD88)
PK NAIL, SOUTHEAST SIDE UTILITY POLE, WEST SIDE OF ARDMORE AVENUE, ON LINE WITH SOUTHERLY PARCEL LINE.

BENCHMARK #3 ELEV. = 856.59 (NAVD88)
RAILROAD SPIKE, NORTHWEST SIDE UTILITY POLE, NORTHEAST QUADRANT OF ARDMORE AVENUE AND HAMILTON ROAD.

EX. SANITARY SEWER INVENTORIES

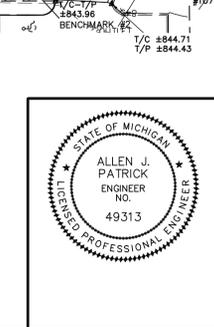
SANITARY MANHOLE #200 RM ELEV. = 845.36 8" VCP N INV. = 836.58 8" VCP SE INV. = 836.72	SANITARY MANHOLE #201 RM ELEV. = 844.36 8" VCP E INV. = 844.36 8" VCP S INV. = 835.33 8" VCP W INV. = 835.13	SANITARY MANHOLE #202 RM ELEV. = 843.30 8" VCP N INV. = 832.60 8" VCP E INV. = 831.28 8" VCP S INV. = 833.77 8" VCP W INV. = 831.17	SANITARY MANHOLE #203 RM ELEV. = 847.01 8" VCP S INV. = 834.83 6" VCP N INV. = 835.03	SANITARY MANHOLE #204 RM ELEV. = 852.05 8" VCP N INV. = 840.56
SANITARY MANHOLE #205 RM ELEV. = 849.85 8" VCP N INV. = 838.88 8" VCP E INV. = 838.97 8" VCP S INV. = 839.51 8" VCP W INV. = 839.58	SANITARY MANHOLE #206 RM ELEV. = 852.02 8" VCP N INV. = 840.63 8" VCP S INV. = 840.71	SANITARY MANHOLE #207 RM ELEV. = 846.20 8" VCP N INV. = 835.95 8" VCP E INV. = 837.75 8" VCP S INV. = 837.00 8" VCP W INV. = 837.61	SANITARY MANHOLE #208 RM ELEV. = 851.62 8" VCP E INV. = 840.11 6" VCP SW INV. = 840.41 8" VCP NW INV. = 840.54	SANITARY MANHOLE #209 RM ELEV. = 842.15 8" VCP N INV. = 833.91 8" VCP S INV. = 833.91
SANITARY MANHOLE #210 RM ELEV. = 839.83 8" VCP N INV. = 829.30	SANITARY MANHOLE #211 RM ELEV. = 839.82 8" VCP N INV. = 828.24 8" VCP E INV. = 830.50 8" VCP S INV. = 828.26 8" VCP W INV. = 828.22	SANITARY MANHOLE #212 RM ELEV. = 853.37 8" VCP E INV. = 837.05 8" VCP S INV. = 836.88 8" VCP W INV. = 836.98	SANITARY MANHOLE #213 RM ELEV. = 854.01 8" VCP N INV. = 841.73 8" VCP W INV. = 841.31	

EX. SANITARY SEWER INVENTORIES

SANITARY MANHOLE #214 RM ELEV. = 848.81 8" VCP N INV. = 844.05 6" PVC S INV. = 844.04 TOP OF DEBRIS ELEV. = 844.04	SANITARY MANHOLE #215 RM ELEV. = 848.81 4" S INV. = 845.28 12" RCP NW INV. = 845.19 SUMP ELEV. = 844.81	SANITARY MANHOLE #216 RM ELEV. = 846.24 15" RCP N INV. = 840.99 15" RCP E INV. = 839.05 8" VCP SW INV. = 842.60 12" RCP W INV. = 843.06 SUMP ELEV. = 838.96	SANITARY MANHOLE #217 RM ELEV. = 844.37 12" RCP NE INV. = 840.22 12" RCP NW INV. = 838.54 (REMOVE) 15" RCP S INV. = 837.28 PROP. I.E. 18" SE 838.75	SANITARY MANHOLE #218 RM ELEV. = 844.38 10" RCP N INV. = 840.43 10" RCP S INV. = 840.39 TOP OF DEBRIS ELEV. = 840.38
SANITARY MANHOLE #219 RM ELEV. = 844.37 10" RCP S INV. = 840.72 TOP OF DEBRIS ELEV. = 840.47	SANITARY MANHOLE #220 RM ELEV. = 844.72 12" RCP N INV. = 839.24 12" RCP SW INV. = 839.01 SUMP ELEV. = 838.12	SANITARY MANHOLE #221 RM ELEV. = 844.68 10" RCP S INV. = 839.47 SUMP ELEV. = 838.06	SANITARY MANHOLE #222 RM ELEV. = 850.32 12" RCP E INV. = 847.30 6" VCP W INV. = 847.39 SUMP ELEV. = 847.22	SANITARY MANHOLE #223 RM ELEV. = 851.00 6" VCP W INV. = 848.40 TOP OF DEBRIS ELEV. = 848.38
SANITARY MANHOLE #224 RM ELEV. = 850.35 6" VCP SW INV. = 848.23 TOP OF DEBRIS ELEV. = 848.23	SANITARY MANHOLE #225 RM ELEV. = 850.89 4" PVC SE INV. = 848.55 6" PVC SW INV. = 848.52 SUMP ELEV. = 848.43	SANITARY MANHOLE #226 RM ELEV. = 841.24 12" RCP NE INV. = 846.01 18" RCP S INV. = 834.18 18" RCP W INV. = 834.14 TOP OF DEBRIS ELEV. = 845.76	SANITARY MANHOLE #227 RM ELEV. = 850.31 10" RCP N INV. = 835.36 12" RCP NW INV. = 835.34 SUMP ELEV. = 836.75	SANITARY MANHOLE #228 RM ELEV. = 850.31 12" RCP N INV. = 845.88 TOP OF DEBRIS ELEV. = 845.88
SANITARY MANHOLE #229 RM ELEV. = 849.25 12" RCP NW INV. = 845.94 SUMP ELEV. = 844.78	SANITARY MANHOLE #230 RM ELEV. = 849.59 12" RCP S INV. = 845.08 12" RCP W INV. = 844.74 SUMP ELEV. = 844.09	SANITARY MANHOLE #231 RM ELEV. = 840.68 8" RCP NE INV. = 844.49 12" RCP E INV. = 840.65 10" RCP S INV. = 834.15 TOP OF DEBRIS ELEV. = 833.93 8" RCP W INV. = 845.02	SANITARY MANHOLE #232 RM ELEV. = 851.94 6" VCP N INV. = 847.59 8" RCP E INV. = 845.86 SUMP ELEV. = 843.42 PROP. I.E. 12" W 845.86	SANITARY MANHOLE #233 RM ELEV. = 849.20 8" RCP SW INV. = 844.59 TOP OF DEBRIS ELEV. = 844.33
SANITARY MANHOLE #234 RM ELEV. = 848.84 8" RCP E INV. = 845.44 8" PVC NW INV. = 845.49 SUMP ELEV. = 841.49	SANITARY MANHOLE #235 RM ELEV. = 851.50 TOP OF DEBRIS ELEV. = 848.25			

EX. SANITARY SEWER INVENTORIES

SANITARY MANHOLE #236 RM ELEV. = 848.81 12" RCP N INV. = 845.19 SW RESTRICTOR PLATE INV. = 849.23 SW 12" SQUARE OPENING INV. = 848.13 SUMP ELEV. = 846.89	SANITARY MANHOLE #237 RM ELEV. = 848.81 4" S INV. = 845.28 12" RCP NW INV. = 845.19 SUMP ELEV. = 844.81	SANITARY MANHOLE #238 RM ELEV. = 846.24 15" RCP N INV. = 840.99 15" RCP E INV. = 839.05 8" VCP SW INV. = 842.60 12" RCP W INV. = 843.06 SUMP ELEV. = 838.96	SANITARY MANHOLE #239 RM ELEV. = 844.37 12" RCP NE INV. = 840.22 12" RCP NW INV. = 838.54 (REMOVE) 15" RCP S INV. = 837.28 PROP. I.E. 18" SE 838.75	SANITARY MANHOLE #240 RM ELEV. = 844.38 10" RCP N INV. = 840.43 10" RCP S INV. = 840.39 TOP OF DEBRIS ELEV. = 840.38
SANITARY MANHOLE #241 RM ELEV. = 844.37 10" RCP S INV. = 840.72 TOP OF DEBRIS ELEV. = 840.47	SANITARY MANHOLE #242 RM ELEV. = 844.72 12" RCP N INV. = 839.24 12" RCP SW INV. = 839.01 SUMP ELEV. = 838.12	SANITARY MANHOLE #243 RM ELEV. = 844.68 10" RCP S INV. = 839.47 SUMP ELEV. = 838.06	SANITARY MANHOLE #244 RM ELEV. = 850.32 12" RCP E INV. = 847.30 6" VCP W INV. = 847.39 SUMP ELEV. = 847.22	SANITARY MANHOLE #245 RM ELEV. = 851.00 6" VCP W INV. = 848.40 TOP OF DEBRIS ELEV. = 848.38
SANITARY MANHOLE #246 RM ELEV. = 850.35 6" VCP SW INV. = 848.23 TOP OF DEBRIS ELEV. = 848.23	SANITARY MANHOLE #247 RM ELEV. = 850.89 4" PVC SE INV. = 848.55 6" PVC SW INV. = 848.52 SUMP ELEV. = 848.43	SANITARY MANHOLE #248 RM ELEV. = 841.24 12" RCP NE INV. = 846.01 18" RCP S INV. = 834.18 18" RCP W INV. = 834.14 TOP OF DEBRIS ELEV. = 845.76	SANITARY MANHOLE #249 RM ELEV. = 850.31 10" RCP N INV. = 835.36 12" RCP NW INV. = 835.34 SUMP ELEV. = 836.75	SANITARY MANHOLE #250 RM ELEV. = 850.31 12" RCP N INV. = 845.88 TOP OF DEBRIS ELEV. = 845.88
SANITARY MANHOLE #251 RM ELEV. = 849.25 12" RCP NW INV. = 845.94 SUMP ELEV. = 844.78	SANITARY MANHOLE #252 RM ELEV. = 849.59 12" RCP S INV. = 845.08 12" RCP W INV. = 844.74 SUMP ELEV. = 844.09	SANITARY MANHOLE #253 RM ELEV. = 840.68 8" RCP NE INV. = 844.49 12" RCP E INV. = 840.65 10" RCP S INV. = 834.15 TOP OF DEBRIS ELEV. = 833.93 8" RCP W INV. = 845.02	SANITARY MANHOLE #254 RM ELEV. = 851.94 6" VCP N INV. = 847.59 8" RCP E INV. = 845.86 SUMP ELEV. = 843.42 PROP. I.E. 12" W 845.86	SANITARY MANHOLE #255 RM ELEV. = 849.20 8" RCP SW INV. = 844.59 TOP OF DEBRIS ELEV. = 844.33
SANITARY MANHOLE #256 RM ELEV. = 848.84 8" RCP E INV. = 845.44 8" PVC NW INV. = 845.49 SUMP ELEV. = 841.49	SANITARY MANHOLE #257 RM ELEV. = 851.50 TOP OF DEBRIS ELEV. = 848.25			



REVISIONS

1-31-22	SUBMITTAL
10-7-22	SUBMITTAL

KEBS, INC. KYES ENGINEERING
 2116 HASLETT ROAD, HASLETT, MI 48840
 PH. 517-339-1014 FAX. 517-339-8047

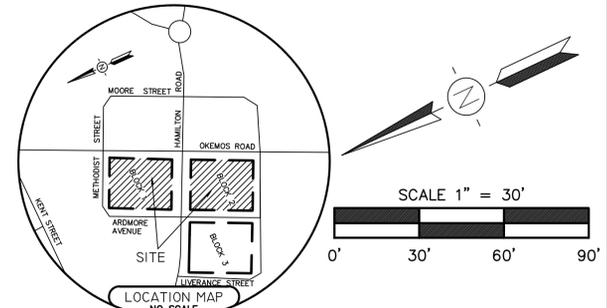
Marshall Office
 Ph. 269-781-9800

Village of Okemos
 GRADING PLAN - LOWER LEVEL PARKING

SCALE: 1" = 40'	DESIGNER: A.J.P.	APPROVED BY: A.J.P.
DATE: 4-14-19	PROJECT MGR. A.J.P.	SHEET 6 OF 16
AUTHORIZED BY: VILLAGE OF OKEMOS, LLC	JOB #: 99191	



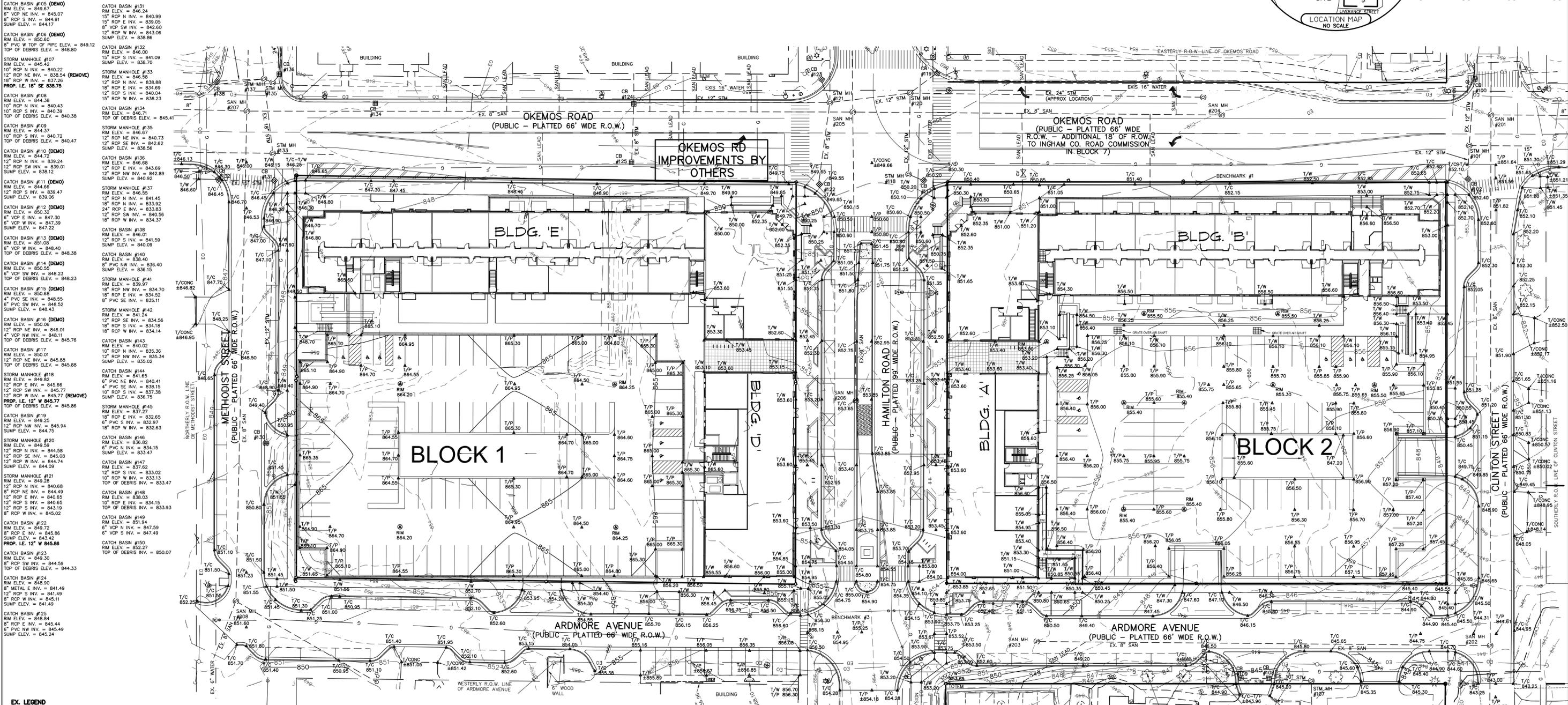
CONSTRUCTION PLANS FOR: Village of Okemos MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN



EX. STORM SEWER INVENTORIES

CATCH BASIN #100 RM ELEV. = 851.88 8" RCP N INV. = 847.69 TOP OF DEBRIS ELEV. = 847.66 SUMP ELEV. = 846.19	CATCH BASIN #126 (DEMO) RM ELEV. = 846.24 6" PVC SE INV. = 846.15 TOP OF DEBRIS ELEV. = 846.10
STORM MANHOLE #101 RM ELEV. = 852.29 12" RCP E INV. = 846.78 15" RCP S ELEV. = 846.59 12" RCP W INV. = 846.90 TOP OF DEBRIS ELEV. = 846.75	CATCH BASIN #127 (DEMO) RM ELEV. = 846.24 8" RCP N INV. = 844.49 SUMP ELEV. = 844.04
CATCH BASIN #102 RM ELEV. = 851.85 12" RCP E INV. = 847.33 TOP OF DEBRIS ELEV. = 847.35	CATCH BASIN #128 (DEMO) RM ELEV. = 846.24 8" VCP NE INV. = 844.05 8" PVC S INV. = 844.05 TOP OF DEBRIS ELEV. = 844.04
CATCH BASIN #103 (DEMO) RM ELEV. = 848.81 12" RCP NW INV. = 845.19 SUMP ELEV. = 844.81	CATCH BASIN #129 (DEMO) RM ELEV. = 848.81 4" S INV. = 845.28 12" RCP NW INV. = 845.19 SW 12" SQUARE OPENING INV. = 845.13 SUMP ELEV. = 846.89
CATCH BASIN #104 (DEMO) RM ELEV. = 851.00 8" RCP N INV. = 847.68 TOP OF WATER ELEV. = 847.68 SUMP ELEV. = 846.60	CATCH BASIN #130 RM ELEV. = 848.81 12" RCP E INV. = 844.91 12" RCP SE INV. = 844.93 (REMOVE) SUMP ELEV. = 843.68 PROP. I.E. 12" NW/S 844.93
CATCH BASIN #105 (DEMO) RM ELEV. = 849.67 6" VCP NE INV. = 845.07 8" RCP S INV. = 844.91 SUMP ELEV. = 844.17	CATCH BASIN #131 RM ELEV. = 846.24 15" RCP N INV. = 840.99 15" RCP E INV. = 839.05 8" VCP SW INV. = 842.60 12" RCP W INV. = 843.06 SUMP ELEV. = 838.96
CATCH BASIN #106 (DEMO) RM ELEV. = 850.60 8" PVC W TOP OF PIPE ELEV. = 849.12 TOP OF DEBRIS ELEV. = 848.80	CATCH BASIN #132 RM ELEV. = 846.00 15" RCP S INV. = 841.09 SUMP ELEV. = 838.20

CATCH BASIN #107 RM ELEV. = 844.37 12" RCP NE INV. = 840.22 12" RCP NW INV. = 838.54 (REMOVE) 15" RCP S INV. = 837.28 PROP. I.E. 18" SE 838.75	CATCH BASIN #133 RM ELEV. = 846.58 12" RCP N INV. = 838.68 15" RCP E INV. = 834.69 12" RCP S INV. = 840.04 15" RCP W INV. = 838.23
CATCH BASIN #108 RM ELEV. = 844.38 10" RCP N INV. = 840.43 10" RCP S INV. = 840.39 TOP OF DEBRIS ELEV. = 840.38	CATCH BASIN #134 RM ELEV. = 845.71 TOP OF DEBRIS ELEV. = 845.41
CATCH BASIN #109 RM ELEV. = 844.37 10" RCP S INV. = 840.72 TOP OF DEBRIS ELEV. = 840.47	CATCH BASIN #135 RM ELEV. = 846.68 12" RCP NE INV. = 840.73 12" RCP SE INV. = 842.62 SUMP ELEV. = 835.36
CATCH BASIN #110 (DEMO) RM ELEV. = 844.72 12" RCP N INV. = 839.24 12" RCP SW INV. = 839.01 SUMP ELEV. = 838.12	CATCH BASIN #136 RM ELEV. = 846.68 12" RCP E INV. = 843.69 8" RCP NW INV. = 842.60 SUMP ELEV. = 840.92
CATCH BASIN #111 (DEMO) RM ELEV. = 844.66 10" RCP S INV. = 839.47 SUMP ELEV. = 838.06	CATCH BASIN #137 RM ELEV. = 846.55 12" RCP N INV. = 841.45 18" RCP N INV. = 833.92 12" RCP SW INV. = 833.83 12" RCP S INV. = 840.56 18" RCP W INV. = 834.37 SUMP ELEV. = 847.22
CATCH BASIN #112 (DEMO) RM ELEV. = 850.32 12" RCP E INV. = 847.30 6" VCP W INV. = 847.39 SUMP ELEV. = 847.22	CATCH BASIN #138 RM ELEV. = 846.01 12" RCP S INV. = 841.59 6" VCP W INV. = 848.40 TOP OF DEBRIS ELEV. = 848.38
CATCH BASIN #113 (DEMO) RM ELEV. = 851.09 6" VCP W INV. = 848.40 TOP OF DEBRIS ELEV. = 848.38	CATCH BASIN #139 RM ELEV. = 838.40 8" PVC NW INV. = 836.40 SUMP ELEV. = 836.15
CATCH BASIN #114 (DEMO) RM ELEV. = 850.35 6" VCP SW INV. = 848.23 TOP OF DEBRIS ELEV. = 848.23	CATCH BASIN #140 RM ELEV. = 839.97 18" RCP NW INV. = 834.70 18" RCP E INV. = 834.52 4" PVC SE INV. = 848.55 8" PVC SW INV. = 848.52 SUMP ELEV. = 846.43
CATCH BASIN #115 (DEMO) RM ELEV. = 850.89 4" PVC SE INV. = 848.55 8" PVC SW INV. = 848.52 SUMP ELEV. = 846.43	CATCH BASIN #141 RM ELEV. = 839.97 18" RCP NW INV. = 834.70 18" RCP E INV. = 834.52 4" PVC SE INV. = 848.55 8" PVC SW INV. = 848.52 SUMP ELEV. = 846.43
CATCH BASIN #116 (DEMO) RM ELEV. = 850.06 12" RCP NE INV. = 846.01 18" RCP S INV. = 834.18 18" RCP W INV. = 834.14 TOP OF DEBRIS ELEV. = 845.76	CATCH BASIN #142 RM ELEV. = 841.24 12" RCP NE INV. = 846.01 18" RCP S INV. = 834.18 18" RCP W INV. = 834.14 TOP OF DEBRIS ELEV. = 845.76
CATCH BASIN #117 RM ELEV. = 850.01 12" RCP N INV. = 845.88 TOP OF DEBRIS ELEV. = 845.88	CATCH BASIN #143 RM ELEV. = 835.36 12" RCP NW INV. = 835.34 TOP OF DEBRIS ELEV. = 845.88
CATCH BASIN #118 RM ELEV. = 841.65 6" VCP NE INV. = 840.41 12" RCP SE INV. = 838.15 10" RCP S INV. = 837.38 12" RCP W INV. = 836.75 PROP. I.E. 12" W 845.77	CATCH BASIN #144 RM ELEV. = 837.27 18" RCP E INV. = 832.65 6" PVC S INV. = 832.97 18" RCP W INV. = 832.63
CATCH BASIN #119 RM ELEV. = 849.25 12" RCP NW INV. = 845.94 TOP OF DEBRIS ELEV. = 845.86	CATCH BASIN #145 RM ELEV. = 837.27 18" RCP E INV. = 832.65 6" PVC S INV. = 832.97 18" RCP W INV. = 832.63
STORM MANHOLE #120 RM ELEV. = 849.59 12" RCP N INV. = 844.58 12" RCP SE INV. = 845.08 12" RCP W INV. = 844.74 SUMP ELEV. = 844.09	CATCH BASIN #146 RM ELEV. = 836.82 6" PVC N INV. = 834.15 SUMP ELEV. = 833.47
STORM MANHOLE #121 RM ELEV. = 849.08 12" RCP N INV. = 840.68 8" RCP NE INV. = 844.49 12" RCP E INV. = 840.65 12" RCP S INV. = 840.65 12" RCP W INV. = 841.19 8" RCP W INV. = 845.02	CATCH BASIN #147 RM ELEV. = 837.62 12" RCP S INV. = 833.02 10" RCP W INV. = 833.13 TOP OF DEBRIS ELEV. = 833.47
CATCH BASIN #122 RM ELEV. = 849.72 8" RCP E INV. = 845.86 SUMP ELEV. = 843.42	CATCH BASIN #148 RM ELEV. = 851.94 6" VCP N INV. = 847.59 6" VCP S INV. = 847.49 SUMP ELEV. = 843.42
CATCH BASIN #123 RM ELEV. = 849.30 8" RCP SW INV. = 844.59 TOP OF DEBRIS ELEV. = 844.33	CATCH BASIN #149 RM ELEV. = 851.94 6" VCP N INV. = 847.59 6" VCP S INV. = 847.49 SUMP ELEV. = 843.42
CATCH BASIN #124 RM ELEV. = 848.90 8" METAL E INV. = 841.49 12" RCP S INV. = 841.49 8" RCP W INV. = 845.11 SUMP ELEV. = 841.49	CATCH BASIN #150 RM ELEV. = 852.27 TOP OF DEBRIS ELEV. = 850.07
CATCH BASIN #125 RM ELEV. = 845.44 8" RCP E INV. = 845.44 8" PVC NW INV. = 845.49 SUMP ELEV. = 841.49	CATCH BASIN #151 RM ELEV. = 849.30 8" RCP SW INV. = 844.59 TOP OF DEBRIS ELEV. = 844.33
CATCH BASIN #126 RM ELEV. = 849.90 8" RCP E INV. = 841.49 12" RCP S INV. = 841.49 8" RCP W INV. = 845.11 SUMP ELEV. = 841.49	CATCH BASIN #152 RM ELEV. = 849.30 8" RCP SW INV. = 844.59 TOP OF DEBRIS ELEV. = 844.33
CATCH BASIN #127 RM ELEV. = 849.90 8" RCP E INV. = 841.49 12" RCP S INV. = 841.49 8" RCP W INV. = 845.11 SUMP ELEV. = 841.49	CATCH BASIN #153 RM ELEV. = 849.30 8" RCP SW INV. = 844.59 TOP OF DEBRIS ELEV. = 844.33
CATCH BASIN #128 RM ELEV. = 849.90 8" RCP E INV. = 841.49 12" RCP S INV. = 841.49 8" RCP W INV. = 845.11 SUMP ELEV. = 841.49	CATCH BASIN #154 RM ELEV. = 849.30 8" RCP SW INV. = 844.59 TOP OF DEBRIS ELEV. = 844.33
CATCH BASIN #129 RM ELEV. = 849.90 8" RCP E INV. = 841.49 12" RCP S INV. = 841.49 8" RCP W INV. = 845.11 SUMP ELEV. = 841.49	CATCH BASIN #155 RM ELEV. = 849.30 8" RCP SW INV. = 844.59 TOP OF DEBRIS ELEV. = 844.33
CATCH BASIN #130 RM ELEV. = 849.90 8" RCP E INV. = 841.49 12" RCP S INV. = 841.49 8" RCP W INV. = 845.11 SUMP ELEV. = 841.49	CATCH BASIN #156 RM ELEV. = 849.30 8" RCP SW INV. = 844.59 TOP OF DEBRIS ELEV. = 844.33



EX. LEGEND

— SET 1/2" BAR WITH CAP	— SANITARY MANHOLE
— FOUND IRON AS NOTED	— DRAINAGE MANHOLE
— DISTANCE NOT TO SCALE	— ELECTRIC MANHOLE
— FENCE	— TELEPHONE MANHOLE
— ASPHALT	— CATCHBASIN
— CONCRETE	— DOWNSPOUT
— GRAVEL	— SANITARY CLEANOUT
— ADA PLATE	— FIRE HYDRANT
— EXISTING SPOT ELEVATION	— VALVE
— EXISTING CONTOUR ELEVATION	— UTILITY POLE
— LIGHT POLE	— GROUND LIGHT
— BUILDING OVERHANG	— TRAFFIC SIGNAL
— GAS LINE	— GUY WIRE
— UNDERGROUND TELEPHONE	— UTILITY PEDESTAL
— UNDERGROUND TELEVISION	— TRANSFORMER
— OVERHEAD WIRES	— HANDHOLE
— GUARDRAIL	— ELECTRIC METER
— DECIDUOUS TREE	— GAS METER
— CONIFEROUS TREE	— WATER METER
	— SOIL
	— POST
	— AIR CONDITIONING UNIT

PROPOSED LEGEND

— PROPOSED WATER MAIN	— PROPOSED TOP OF CURB ELEV.
— PROPOSED SANITARY SEWER	
— PROPOSED STORM SEWER	
— MANHOLE (NEW)	
— PROPOSED C.S. MANHOLE (EX.)	
— UTILITY EASEMENT	
— CENTER LINE OF ROAD	
— ROAD RIGHT OF WAY	
— PROPERTY LINE	
— FIRE HYDRANT	
— WATER VALVE	
— THRUST BLOCK	

NOTE: WATER SHALL HAVE 10' HORIZONTAL SEPARATION & 18" VERTICAL SEPARATION FROM ALL SEWERS.

BENCHMARKS

BENCHMARK #1 ELEV. = 852.30 (NAVD88)
PK NAIL, WEST SIDE UTILITY POLE, WEST SIDE OF OKEMOS ROAD, ±42' SOUTH OF BUILDING #4661 OKEMOS ROAD.

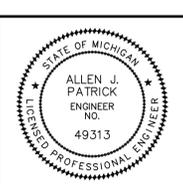
BENCHMARK #2 ELEV. = 846.57 (NAVD88)
PK NAIL, SOUTHEAST SIDE UTILITY POLE, WEST SIDE OF ARDMORE AVENUE, ON LINE WITH SOUTHERLY PARCEL LINE.

BENCHMARK #3 ELEV. = 856.59 (NAVD88)
RAILROAD SPIKE, NORTHWEST SIDE UTILITY POLE, NORTHEAST QUADRANT OF ARDMORE AVENUE AND HAMILTON ROAD.

12 HOURS BEFORE YOU DIG CALL MISS DIG 800-482-7171 (TOLL-FREE)

EX. SANITARY SEWER INVENTORIES

SANITARY MANHOLE #200 RM ELEV. = 845.38 8" VCP N INV. = 836.58 8" VCP SE INV. = 836.72	SANITARY MANHOLE #201 RM ELEV. = 851.97 8" VCP E INV. = 844.36 8" VCP N INV. = 835.34 8" VCP W INV. = 835.13	SANITARY MANHOLE #202 RM ELEV. = 844.30 8" VCP N INV. = 832.60 8" VCP E INV. = 831.28 8" VCP S INV. = 833.77 8" VCP W INV. = 831.17	SANITARY MANHOLE #203 RM ELEV. = 847.01 8" VCP S INV. = 834.83 6" VCP W INV. = 835.03	SANITARY MANHOLE #204 RM ELEV. = 852.05 8" VCP N INV. = 840.56	SANITARY MANHOLE #205 RM ELEV. = 849.85 8" VCP N INV. = 838.88 8" VCP E INV. = 838.97 8" VCP S INV. = 839.51 8" VCP W INV. = 839.58	SANITARY MANHOLE #206 RM ELEV. = 852.02 8" VCP N INV. = 840.63 8" VCP S INV. = 840.71	SANITARY MANHOLE #207 RM ELEV. = 846.30 8" VCP N INV. = 837.05 8" VCP E INV. = 835.95 8" VCP S INV. = 837.75 8" VCP W INV. = 837.05	SANITARY MANHOLE #208 RM ELEV. = 851.82 8" VCP N INV. = 840.41 6" VCP NW INV. = 840.54	SANITARY MANHOLE #209 RM ELEV. = 842.15 8" VCP N INV. = 833.91 8" VCP S INV. = 833.91	SANITARY MANHOLE #210 RM ELEV. = 829.30 8" VCP N INV. = 829.30	SANITARY MANHOLE #211 RM ELEV. = 839.82 8" VCP N INV. = 828.24 8" VCP E INV. = 830.50 8" VCP S INV. = 828.26 8" VCP W INV. = 828.22	SANITARY MANHOLE #212 RM ELEV. = 853.37 8" VCP E INV. = 837.05 8" VCP S INV. = 836.88 8" VCP W INV. = 836.98	SANITARY MANHOLE #213 RM ELEV. = 854.01 8" VCP N INV. = 841.73 8" VCP W INV. = 841.31
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REVISIONS

1-31-22 SUBMITTAL	
10-7-22 SUBMITTAL	

KEBS, INC. KYES ENGINEERING
2116 HASLETT ROAD, HASLETT, MI 48840
PH. 517-339-1014 FAX. 517-339-8047

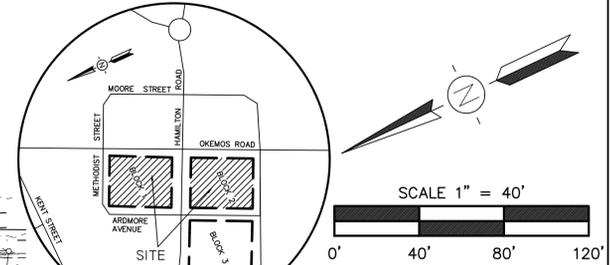
Marshall Office
Ph. 269-781-9800

Village of Okemos
GRADING PLAN - UPPER LEVEL PARKING

SCALE: 1" = 40'	DESIGNER: A.J.P.	APPROVED BY: A.J.P.
DATE: 4-14-19	PROJECT MGR. A.J.P.	SHEET 7 OF 16
AUTHORIZED BY: VILLAGE OF OKEMOS, LLC	JOB #:	99191

CONSTRUCTION PLANS FOR: Village of Okemos

MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN

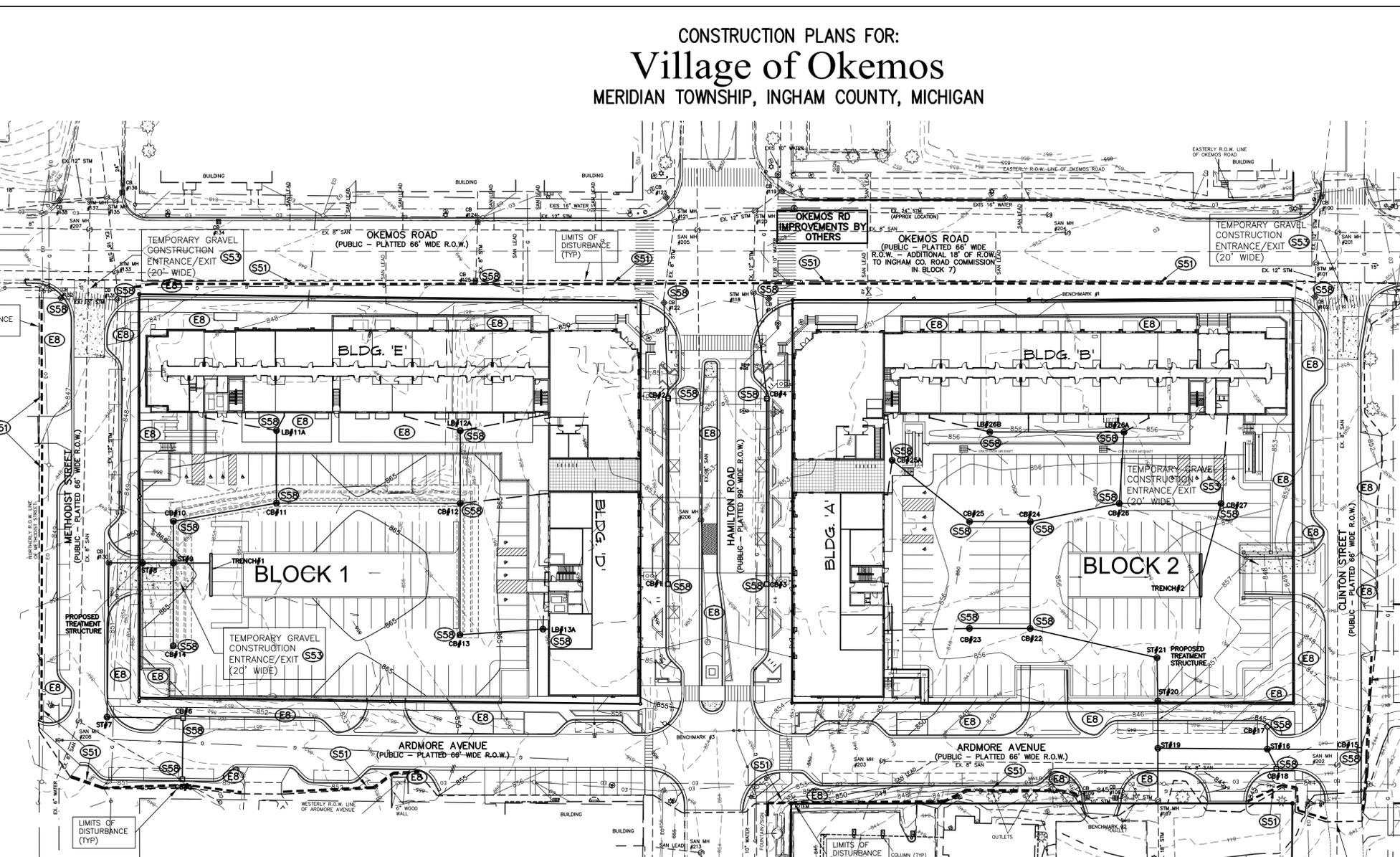
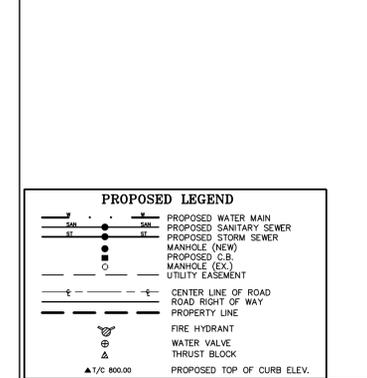
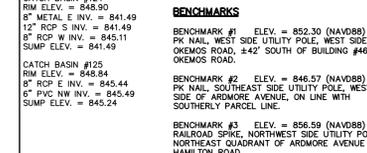


EX. STORM SEWER INVENTORIES

CATCH BASIN #100 RM ELEV. = 851.88 8" RCP N INV. = 847.69 TOP OF DEBRIS ELEV. = 847.66 SUMP ELEV. = 846.19	CATCH BASIN #126 (DEMO) RM ELEV. = 846.24 8" PVC N INV. = 846.15 TOP OF DEBRIS ELEV. = 846.10
STORM MANHOLE #101 RM ELEV. = 852.29 12" RCP E INV. = 846.78 15" RCP S ELEV. = 846.59 TOP OF DEBRIS ELEV. = 846.75	CATCH BASIN #127 (DEMO) RM ELEV. = 848.24 8" PVC N INV. = 844.49 SUMP ELEV. = 844.04
CATCH BASIN #102 RM ELEV. = 851.85 12" RCP E INV. = 847.33 TOP OF DEBRIS ELEV. = 847.35	CATCH BASIN #128 (DEMO) RM ELEV. = 847.24 8" VCP NE INV. = 844.05 8" PVC S INV. = 844.05 TOP OF DEBRIS ELEV. = 844.04
CATCH BASIN #103 (DEMO) RM ELEV. = 852.09 SW RESTRICTOR PLATE INV. = 849.23 SW 12" SQUARE OPENING INV. = 849.13 SUMP ELEV. = 846.89	CATCH BASIN #129 (DEMO) RM ELEV. = 848.81 4" S INV. = 845.28 8" VCP NW INV. = 845.19 SUMP ELEV. = 844.81
CATCH BASIN #104 (DEMO) RM ELEV. = 851.00 8" RCP N INV. = 847.68 TOP OF WATER ELEV. = 847.68 SUMP ELEV. = 846.60	CATCH BASIN #130 (ADJUST TO 849.50) RM ELEV. = 844.91 12" RCP E INV. = 844.91 8" VCP SW INV. = 842.60 (REMOVE) SUMP ELEV. = 843.68 PROP. I.E. 12" NW/S 844.93
CATCH BASIN #105 (DEMO) RM ELEV. = 849.67 6" VCP NE INV. = 845.07 8" RCP S INV. = 844.91 SUMP ELEV. = 841.17	CATCH BASIN #131 RM ELEV. = 846.24 15" RCP N INV. = 840.99 15" RCP E INV. = 839.05 8" VCP SW INV. = 842.60 12" RCP W INV. = 843.06 SUMP ELEV. = 838.96
CATCH BASIN #106 (DEMO) RM ELEV. = 850.60 8" VCP W TOP PIPE ELEV. = 849.12 TOP OF DEBRIS ELEV. = 848.80	CATCH BASIN #132 RM ELEV. = 846.00 15" RCP S INV. = 841.09 SUMP ELEV. = 838.70
STORM MANHOLE #107 RM ELEV. = 845.42 10" RCP N INV. = 840.22 12" RCP NE INV. = 838.54 (REMOVE) 15" RCP W INV. = 837.26 PROP. I.E. 18" SE 838.75	STORM MANHOLE #133 RM ELEV. = 846.58 12" RCP N INV. = 838.68 15" RCP E INV. = 834.69 12" RCP S INV. = 840.04 15" RCP W INV. = 838.23
CATCH BASIN #108 RM ELEV. = 844.38 10" RCP N INV. = 840.43 10" RCP S INV. = 840.39 TOP OF DEBRIS ELEV. = 840.38	CATCH BASIN #134 RM ELEV. = 846.71 TOP OF DEBRIS ELEV. = 845.41
CATCH BASIN #109 RM ELEV. = 844.37 10" RCP S INV. = 840.72 TOP OF DEBRIS ELEV. = 840.47	STORM MANHOLE #135 RM ELEV. = 846.07 12" RCP NE INV. = 840.73 12" RCP SE INV. = 842.62 SUMP ELEV. = 838.96
CATCH BASIN #110 (DEMO) RM ELEV. = 849.72 12" RCP N INV. = 839.24 12" RCP SW INV. = 839.01 SUMP ELEV. = 838.12	CATCH BASIN #136 RM ELEV. = 846.68 12" RCP E INV. = 843.69 12" RCP NW INV. = 843.89 SUMP ELEV. = 840.92
CATCH BASIN #111 (DEMO) RM ELEV. = 844.68 12" RCP S INV. = 839.47 SUMP ELEV. = 839.06	STORM MANHOLE #137 RM ELEV. = 846.55 12" RCP N INV. = 841.45 18" RCP N INV. = 833.92 23.4" RCP E INV. = 833.83 12" RCP SW INV. = 840.56 18" RCP W INV. = 834.37 SUMP ELEV. = 847.22
CATCH BASIN #112 (DEMO) RM ELEV. = 850.32 12" RCP N INV. = 847.30 6" VCP E INV. = 847.39 SUMP ELEV. = 847.22	CATCH BASIN #138 RM ELEV. = 846.01 12" RCP S INV. = 841.59 SUMP ELEV. = 840.09
CATCH BASIN #113 (DEMO) RM ELEV. = 851.09 6" VCP W INV. = 848.40 TOP OF DEBRIS ELEV. = 848.38	CATCH BASIN #140 RM ELEV. = 838.40 8" PVC NW INV. = 836.40 SUMP ELEV. = 836.15
CATCH BASIN #114 (DEMO) RM ELEV. = 850.55 6" VCP SW INV. = 848.23 TOP OF DEBRIS ELEV. = 848.23	STORM MANHOLE #141 RM ELEV. = 839.91 18" RCP NW INV. = 834.70 18" RCP E INV. = 834.52 4" PVC SE INV. = 835.11 SUMP ELEV. = 835.11
CATCH BASIN #115 (DEMO) RM ELEV. = 849.82 4" PVC SE INV. = 848.55 6" VCP SW INV. = 848.52 SUMP ELEV. = 848.43	STORM MANHOLE #142 RM ELEV. = 841.24 12" RCP N INV. = 834.56 18" RCP S INV. = 834.18 14" VCP W INV. = 834.11 TOP OF DEBRIS ELEV. = 845.76
CATCH BASIN #116 (DEMO) RM ELEV. = 850.06 12" RCP NE INV. = 846.01 12" RCP NW INV. = 846.11 TOP OF DEBRIS ELEV. = 845.76	CATCH BASIN #143 RM ELEV. = 846.02 10" RCP N INV. = 835.36 12" RCP NW INV. = 835.34 SUMP ELEV. = 835.02
CATCH BASIN #117 RM ELEV. = 850.01 12" RCP NE INV. = 845.88 TOP OF DEBRIS ELEV. = 845.88	CATCH BASIN #144 RM ELEV. = 841.65 6" PVC NE INV. = 840.41 4" PVC SE INV. = 838.15 10" RCP S INV. = 837.38 SUMP ELEV. = 836.75
STORM MANHOLE #118 RM ELEV. = 849.82 12" RCP E INV. = 845.77 12" RCP W INV. = 845.77 (REMOVE) TOP OF DEBRIS ELEV. = 845.86	STORM MANHOLE #145 RM ELEV. = 837.27 18" RCP E INV. = 832.65 6" PVC S INV. = 832.97 18" RCP W INV. = 832.63
CATCH BASIN #119 RM ELEV. = 849.25 12" RCP NW INV. = 845.94 TOP OF DEBRIS ELEV. = 845.86	CATCH BASIN #146 RM ELEV. = 836.82 6" PVC N INV. = 834.15 SUMP ELEV. = 833.47
STORM MANHOLE #120 RM ELEV. = 849.59 12" RCP N INV. = 844.58 12" RCP SE INV. = 845.08 12" RCP W INV. = 844.74 SUMP ELEV. = 844.09	CATCH BASIN #147 RM ELEV. = 837.62 12" RCP S INV. = 833.02 10" RCP W INV. = 833.13 TOP OF DEBRIS ELEV. = 833.47
STORM MANHOLE #121 RM ELEV. = 849.29 12" RCP N INV. = 840.68 8" RCP NE INV. = 844.48 12" RCP E INV. = 840.65 12" RCP S INV. = 840.65 12" RCP W INV. = 841.19 8" RCP W INV. = 845.02	CATCH BASIN #148 RM ELEV. = 838.03 10" RCP E INV. = 834.15 TOP OF DEBRIS ELEV. = 833.93
CATCH BASIN #122 RM ELEV. = 849.72 6" VCP N INV. = 847.59 8" RCP E INV. = 845.86 SUMP ELEV. = 843.42 PROP. I.E. 12" W 845.86	CATCH BASIN #149 RM ELEV. = 851.94 6" VCP N INV. = 847.59 8" RCP E INV. = 845.86 SUMP ELEV. = 843.42 PROP. I.E. 12" W 845.86
CATCH BASIN #123 RM ELEV. = 849.30 8" RCP SW INV. = 844.59 TOP OF DEBRIS ELEV. = 844.33	CATCH BASIN #150 RM ELEV. = 852.27 TOP OF DEBRIS ELEV. = 850.07

BENCHMARKS

BENCHMARK #1 ELEV. = 852.30 (NAV088) PK NW, WEST SIDE UTILITY POLE, WEST SIDE OF OKEMOS ROAD, 242' SOUTH OF BUILDING #4681 OKEMOS ROAD.	BENCHMARK #2 ELEV. = 846.57 (NAV088) PK NW, SOUTHEAST SIDE UTILITY POLE, WEST SIDE OF ARDMORE AVENUE, ON LINE WITH SOUTHERLY PARCEL LINE.	BENCHMARK #3 ELEV. = 856.59 (NAV088) RAILROAD SPKE, NORTHWEST SIDE UTILITY POLE, NORTHEAST QUADRANT OF ARDMORE AVENUE AND HAMILTON ROAD.
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STREET SWEEPING NOTES:
PUBLIC ROADWAYS SHALL BE KEPT CLEAN AND FREE OF TRACKED SEDIMENT. A STREET SWEEPER OR A BOBCAT WITH A BROOM ATTACHMENT SHOULD BE KEPT ON SITE TO DEAL WITH ANY OFF-SITE TRACKING AS IT OCCURS.

NOTE: WATER SHALL HAVE 10" HORIZONTAL SEPARATION & 18" VERTICAL SEPARATION FROM ALL SEWERS.

**MICHIGAN DEPARTMENT OF MANAGEMENT AND BUDGET
S-E-S-C KEYING SYSTEM**

KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
EB	PERMANENT SEEDING		Stabilization method utilized on sites where earth change has been completed (final grading attained).
SS1	SILT FENCE		Use adjacent to critical areas, to prevent sediment laden sheet flow from entering these areas.
SS3	STABILIZED CONSTRUCTION ACCESS		Used at every point where construction traffic enters or leaves a construction site.
SS8	INLET PROTECTION FABRIC DROP		Use at stormwater inlets, especially at construction sites.

EX. SANITARY SEWER INVENTORIES

SANITARY MANHOLE #200 RM ELEV. = 845.38 8" VCP N INV. = 836.58 8" VCP SE INV. = 836.72 8" VCP S INV. = 835.23 8" VCP W INV. = 835.13	SANITARY MANHOLE #201 RM ELEV. = 851.97 8" VCP E INV. = 844.36 8" VCP N INV. = 832.60 8" VCP S INV. = 831.29 8" VCP W INV. = 833.77	SANITARY MANHOLE #202 RM ELEV. = 844.36 8" VCP N INV. = 832.60 8" VCP S INV. = 831.29 8" VCP W INV. = 833.77	SANITARY MANHOLE #203 RM ELEV. = 847.01 8" VCP S INV. = 834.83 6" VCP W INV. = 835.03	SANITARY MANHOLE #204 RM ELEV. = 852.08 8" VCP N INV. = 838.24 8" VCP S INV. = 830.50 8" VCP W INV. = 828.22	SANITARY MANHOLE #205 RM ELEV. = 849.65 8" VCP N INV. = 838.88 8" VCP S INV. = 839.51 8" VCP W INV. = 839.58	SANITARY MANHOLE #206 RM ELEV. = 852.02 8" VCP N INV. = 840.63 8" VCP E INV. = 840.33 8" VCP S INV. = 840.71	SANITARY MANHOLE #207 RM ELEV. = 846.39 8" VCP N INV. = 835.95 8" VCP SE INV. = 836.72 8" VCP S INV. = 837.00 8" VCP W INV. = 837.61	SANITARY MANHOLE #208 RM ELEV. = 847.01 8" VCP N INV. = 828.25 8" VCP S INV. = 833.91 8" VCP W INV. = 828.22	SANITARY MANHOLE #209 RM ELEV. = 842.15 8" VCP N INV. = 828.24 8" VCP S INV. = 833.91 8" VCP W INV. = 828.22	SANITARY MANHOLE #210 RM ELEV. = 839.83 8" VCP N INV. = 829.25 8" VCP E INV. = 829.30	SANITARY MANHOLE #211 RM ELEV. = 838.82 8" VCP N INV. = 828.24 8" VCP S INV. = 830.50 8" VCP W INV. = 828.22	SANITARY MANHOLE #212 RM ELEV. = 853.37 8" VCP E INV. = 837.05 8" VCP S INV. = 836.88 8" VCP W INV. = 836.98	SANITARY MANHOLE #213 RM ELEV. = 854.01 8" VCP N INV. = 841.73 8" VCP S INV. = 841.31
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NOTE: STORM WATER RUNOFF FROM THIS SITE WILL NOT ADVERSELY AFFECT ADJACENT PROPERTIES.

NOTE: ANY STOCKPILING OF SOIL SHALL BE SURROUNDED BY SILT FENCE, SEEDING IF LEFT OVER 30 DAYS.

ADD ADVANCED INLET PROTECTION TO ALL CATCHBASINS & LAMNBASINS.

CONSTRUCTION SCHEDULE & SEQUENCING:

PLACE AND MAINTAIN TEMPORARY EROSION CONTROLS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
TOPSOIL STRIPPING & STOCKPILING												
ON-SITE UTILITIES CONSTRUCTION												
SITE GRADING & EARTHWORK												
PARKING LOT CONSTRUCTION												
TOPSOIL SPREADING												
PERMANENT SEEDING												
FINAL INSPECTIONS & REMOVE TEMPORARY EROSION CONTROLS												

SS9 DENOTES ALL LAMNBASINS & CATCHBASINS (TYP)

SOIL TYPE:
UpA-Urban Land-Capac-Calwood Complex, 0 to 4 percent slopes.
UtB-Urban Land-Marlette Complex, 2 to 12 percent slopes.

AREA DISTURBED = 6.82 ACRES

SILT FENCE (TYP.)
LIMITS OF EARTH DISTURBANCE (TYP.)

PROPOSED STORM INVENTORY

CB#1 RM 852.45 I.E. 12" SE 848.45	ST#8 (CS-4) RM 850.80 I.E. 12" NE/SW 845.04	LB#12A RM 852.75 I.E. 12" NW 848.75	CB#18 RM 844.40 I.E. 12" E 840.40	CB#24 RM 845.40 I.E. 12" SW/NW 839.86 I.E. 12" SE 840.20	CB#27 RM 845.50 I.E. 12" NE 840.50
CB#2 RM 850.85 I.E. 12" NW/SE 846.85	ST#9 RM 852.00 I.E. 48" NE/SW 845.14 I.E. 12" SE 845.14 I.E. 12" SW 848.00	CB#3 RM 852.45 I.E. 12" SE 848.45	ST#15 RM 845.44 I.E. 15" SE 838.38 I.E. 18" NW 838.38	CB#25 RM 845.40 I.E. 12" SW 840.40 I.E. 12" E 841.40	TRENCH#1 RM 852.50 I.E. 12" N 848.50
CB#4 RM 850.85 I.E. 12" NW/SE 846.85	CB#10 RM 851.70 I.E. 15" NW/SW 845.21	LB#13A RM 852.75 I.E. 12" NE 848.75	ST#20 (CS-4) RM 851.70 I.E. 48" NW/SE 838.54 I.E. 12" W 842.05	CB#26 RM 845.30 I.E. 12" W 840.16 I.E. 12" SE 841.30	TRENCH#2 RM 846.60 I.E. 12" SE 842.60
CB#5 RM 850.45 I.E. 12" SE 846.45	ST#11 RM 852.45 I.E. 48" NE/SW 845.39 I.E. 12" SE 848.45	CB#14 RM 851.80 I.E. 48" SE 845.41	ST#21 RM 846.60 I.E. 15" NW/NE 839.08 I.E. 12" W 842.05	CB#28 RM 845.40 I.E. 12" SW 840.16 I.E. 12" SE 841.30	
CB#6 RM 850.45 I.E. 12" NW/NE 846.25	LB#11A RM 852.75 I.E. 12" NW 848.75	CB#15 RM 844.45 I.E. 12" NE 840.45	CB#22 RM 846.50 I.E. 12" SW 839.51 I.E. 12" NE 840.20	LB#26A RM 855.50 I.E. 12" NE 851.00 I.E. 12" NW 841.80	
ST#7 RM 851.13 I.E. 12" SW/SE 846.00	CB#12 RM 852.35 I.E. 48" NW/NE 845.70 I.E. 12" SE 845.35	ST#16 RM 844.70 I.E. 12" SW/NE 840.10 I.E. 12" W/SE 840.10	CB#23 RM 845.40 I.E. 12" SW 840.40	LB#26B RM 855.50 I.E. 12" SW 851.50	
		CB#7 RM 844.30 I.E. 12" NW 840.30			

E-93725-MUPUD-4-12-19
SURVEY #93725ALT

REVISIONS

1-31-22	SUBMITTAL
10-7-22	SUBMITTAL

KEBS, INC. KYES ENGINEERING
BRYAN LAND SURVEYS

2116 HASLETT ROAD, HASLETT, MI 48840
PH. 517-339-1014 FAX. 517-339-8047

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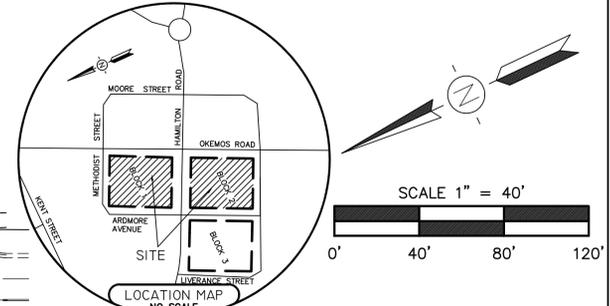
Village of Okemos
SOIL EROSION CONTROL PLAN

DESIGNER: AJP
PROJECT MGR. AJP
JOB # 99191

APPROVED BY: AJP
SHEET 8 OF 16

CONSTRUCTION PLANS FOR: Village of Okemos

MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN

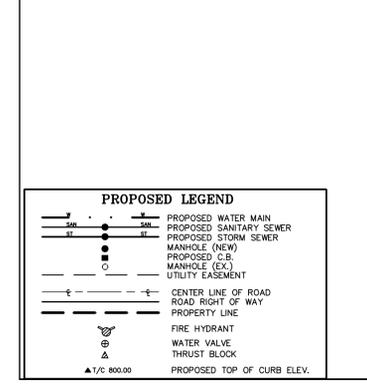


EX. STORM SEWER INVENTORIES

CATCH BASIN #100 RIM ELEV. = 851.88 8" RCP N INV. = 847.69 TOP OF DEBRIS ELEV. = 847.66 SUMP ELEV. = 846.19	CATCH BASIN #126 (DEMO) RIM ELEV. = 846.24 6" PVC SE INV. = 846.15 TOP OF DEBRIS ELEV. = 846.10
STORM MANHOLE #101 RIM ELEV. = 852.39 12" RCP E INV. = 846.78 15" RCP S ELEV. = 846.59 12" RCP W INV. = 846.90 TOP OF DEBRIS ELEV. = 846.75	CATCH BASIN #127 (DEMO) RIM ELEV. = 846.58 8" PVC N INV. = 844.49 SUMP ELEV. = 844.04
CATCH BASIN #102 RIM ELEV. = 851.85 12" RCP E INV. = 847.33 TOP OF DEBRIS ELEV. = 847.35	CATCH BASIN #128 (DEMO) RIM ELEV. = 847.24 8" VCP NE INV. = 844.05 8" PVC S INV. = 844.05 TOP OF DEBRIS ELEV. = 844.04
CATCH BASIN #103 (DEMO) RIM ELEV. = 852.09 SW RESTRICTOR PLATE INV. = 849.23 SW 12" SQUARE OPENING INV. = 848.13 SUMP ELEV. = 846.89	CATCH BASIN #129 (DEMO) RIM ELEV. = 848.81 4" S INV. = 845.28 12" RCP NW INV. = 845.19 SUMP ELEV. = 844.81
CATCH BASIN #104 (DEMO) RIM ELEV. = 851.00 8" RCP N INV. = 847.68 TOP OF WATER ELEV. = 847.68 SUMP ELEV. = 846.60	CATCH BASIN #130 (ADJUST TO 849.50) RIM ELEV. = 849.50 12" RCP E INV. = 844.91 12" RCP SE INV. = 844.93 (REMOVE) SUMP ELEV. = 843.68 PROP. I.E. 12" NW/S 844.93
CATCH BASIN #105 (DEMO) RIM ELEV. = 849.67 6" VCP NE INV. = 845.07 8" RCP S INV. = 844.91 SUMP ELEV. = 844.17	CATCH BASIN #131 RIM ELEV. = 846.24 15" RCP N INV. = 840.99 12" RCP E INV. = 839.05 6" VCP SW INV. = 842.60 12" RCP W INV. = 843.06 SUMP ELEV. = 838.86
CATCH BASIN #106 (DEMO) RIM ELEV. = 850.60 8" VCP W TOP OF PIPE ELEV. = 849.12 TOP OF DEBRIS ELEV. = 848.80	CATCH BASIN #132 RIM ELEV. = 846.00 15" RCP S INV. = 841.09 SUMP ELEV. = 838.70
STORM MANHOLE #107 RIM ELEV. = 845.42 10" RCP NE INV. = 840.22 12" RCP NE INV. = 838.54 (REMOVE) 18" RCP W INV. = 837.28 PROP. I.E. 18" SE 838.75	STORM MANHOLE #133 RIM ELEV. = 846.58 12" RCP N INV. = 838.68 18" RCP E INV. = 834.69 12" RCP S INV. = 840.04 15" RCP W INV. = 838.23
CATCH BASIN #108 RIM ELEV. = 844.38 10" RCP N INV. = 840.43 10" RCP S INV. = 840.39 TOP OF DEBRIS ELEV. = 840.38	CATCH BASIN #134 RIM ELEV. = 846.71 TOP OF DEBRIS ELEV. = 845.41
CATCH BASIN #109 RIM ELEV. = 844.37 10" RCP S INV. = 840.72 TOP OF DEBRIS ELEV. = 840.47	STORM MANHOLE #135 RIM ELEV. = 846.87 12" RCP NE INV. = 840.73 12" RCP SE INV. = 842.62 SUMP ELEV. = 838.56
CATCH BASIN #110 (DEMO) RIM ELEV. = 844.72 12" RCP N INV. = 839.24 12" RCP SW INV. = 839.01 SUMP ELEV. = 838.12	CATCH BASIN #136 RIM ELEV. = 846.68 12" RCP E INV. = 843.69 12" RCP NW INV. = 843.89 SUMP ELEV. = 840.92
CATCH BASIN #111 (DEMO) RIM ELEV. = 844.68 12" RCP S INV. = 839.47 SUMP ELEV. = 839.06	STORM MANHOLE #137 RIM ELEV. = 846.55 12" RCP N INV. = 841.45 18" RCP N INV. = 833.92 24" RCP E INV. = 833.83 12" RCP SW INV. = 840.56 18" RCP W INV. = 834.37 SUMP ELEV. = 847.22
CATCH BASIN #112 (DEMO) RIM ELEV. = 850.32 4" VCP E INV. = 847.30 6" VCP W INV. = 847.39 SUMP ELEV. = 847.22	CATCH BASIN #138 RIM ELEV. = 846.01 12" RCP S INV. = 841.59 SUMP ELEV. = 840.09
CATCH BASIN #113 (DEMO) RIM ELEV. = 851.08 6" VCP W INV. = 848.40 TOP OF DEBRIS ELEV. = 848.38	CATCH BASIN #140 RIM ELEV. = 838.40 8" PVC NW INV. = 836.40 SUMP ELEV. = 836.15
CATCH BASIN #114 (DEMO) RIM ELEV. = 850.35 6" VCP SW INV. = 848.23 TOP OF DEBRIS ELEV. = 848.23	STORM MANHOLE #141 RIM ELEV. = 839.97 18" RCP NW INV. = 834.70 18" RCP E INV. = 834.52 6" PVC SE INV. = 835.11
CATCH BASIN #115 (DEMO) RIM ELEV. = 850.89 4" PVC SE INV. = 848.55 6" PVC SW INV. = 848.52 SUMP ELEV. = 846.43	STORM MANHOLE #142 RIM ELEV. = 841.24 12" RCP SE INV. = 834.56 18" RCP S INV. = 834.18 12" RCP W INV. = 834.14 TOP OF DEBRIS ELEV. = 845.76
CATCH BASIN #116 (DEMO) RIM ELEV. = 850.06 12" RCP NE INV. = 846.01 4" VCP NW INV. = 846.11 TOP OF DEBRIS ELEV. = 845.76	CATCH BASIN #143 RIM ELEV. = 846.02 10" RCP N INV. = 835.36 12" RCP NW INV. = 835.34 SUMP ELEV. = 835.02
CATCH BASIN #117 RIM ELEV. = 850.01 12" RCP NE INV. = 845.88 TOP OF DEBRIS ELEV. = 845.88	CATCH BASIN #144 RIM ELEV. = 841.65 6" PVC NE INV. = 840.41 12" RCP E INV. = 845.66 4" PVC SE INV. = 838.15 12" RCP SW INV. = 845.77 (REMOVE) 12" RCP W INV. = 845.77 PROP. I.E. 12" W 845.77
STORM MANHOLE #118 RIM ELEV. = 849.82 12" RCP E INV. = 845.66 12" RCP SW INV. = 845.77 12" RCP W INV. = 845.77 TOP OF DEBRIS ELEV. = 845.86	STORM MANHOLE #145 RIM ELEV. = 837.27 18" RCP E INV. = 832.65 6" PVC S INV. = 832.97 18" RCP W INV. = 832.63
CATCH BASIN #119 RIM ELEV. = 849.25 8" RCP NW INV. = 845.94 SUMP ELEV. = 844.78	CATCH BASIN #146 RIM ELEV. = 836.82 6" PVC N INV. = 834.15 SUMP ELEV. = 833.47
CATCH BASIN #120 RIM ELEV. = 849.59 12" RCP N INV. = 844.58 12" RCP SE INV. = 845.08 12" RCP W INV. = 844.74 SUMP ELEV. = 844.09	CATCH BASIN #147 RIM ELEV. = 837.62 12" RCP S INV. = 833.02 10" RCP W INV. = 833.13 TOP OF DEBRIS ELEV. = 833.47
STORM MANHOLE #121 RIM ELEV. = 849.28 12" RCP N INV. = 840.68 8" RCP NE INV. = 844.49 12" RCP E INV. = 840.65 12" RCP S INV. = 840.65 12" RCP SW INV. = 841.19 8" RCP W INV. = 845.02	CATCH BASIN #148 RIM ELEV. = 838.03 10" RCP E INV. = 834.15 TOP OF DEBRIS ELEV. = 833.93
CATCH BASIN #122 RIM ELEV. = 849.72 8" RCP E INV. = 845.86 SUMP ELEV. = 843.42 PROP. I.E. 12" W 845.86	CATCH BASIN #149 RIM ELEV. = 851.94 6" VCP N INV. = 847.59 6" VCP S INV. = 847.49
CATCH BASIN #123 RIM ELEV. = 849.30 8" RCP SW INV. = 844.59 TOP OF DEBRIS ELEV. = 844.33	CATCH BASIN #150 RIM ELEV. = 852.27 TOP OF DEBRIS INV. = 850.07

BENCHMARKS

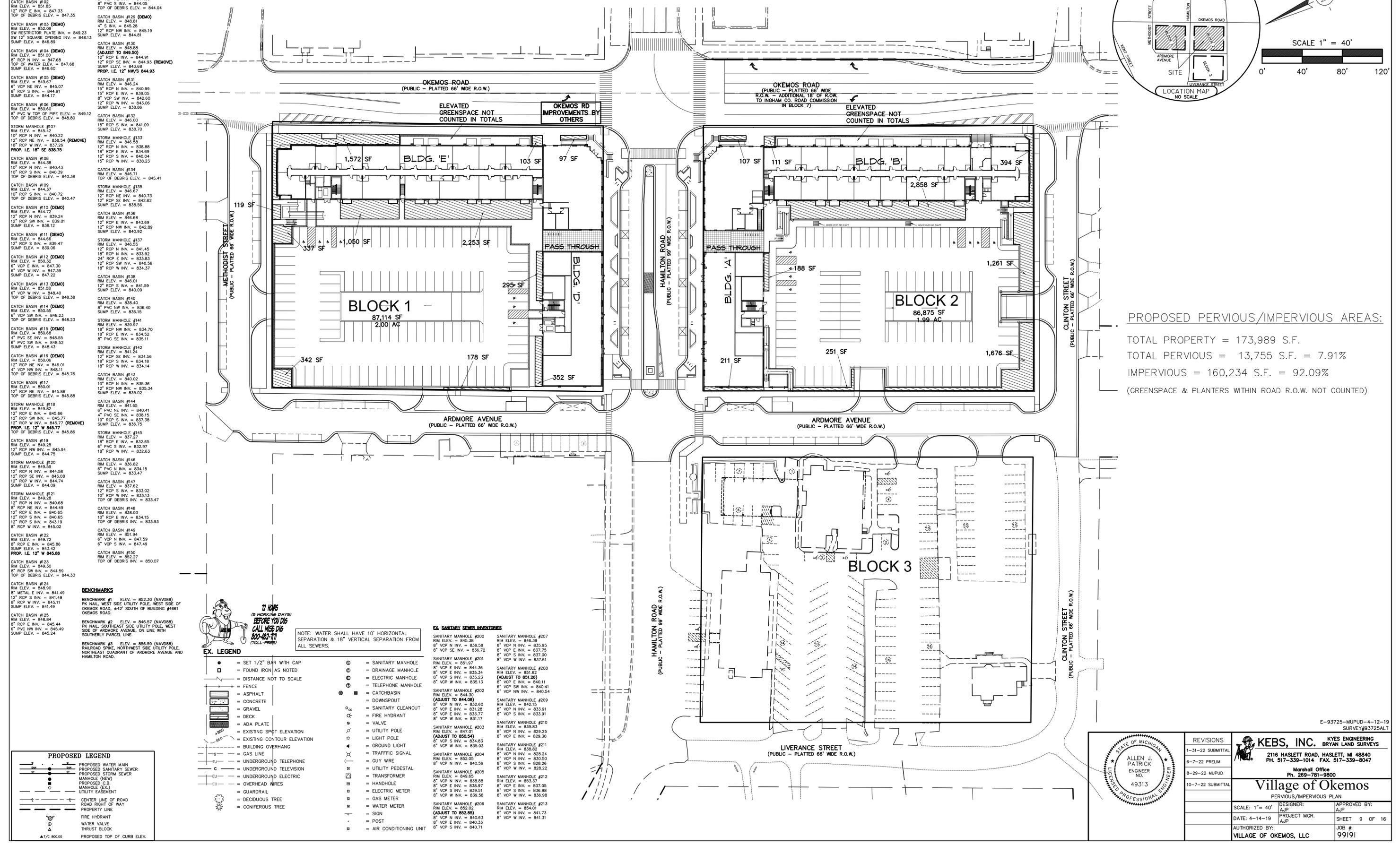
CATCH BASIN #125 RIM ELEV. = 848.94 8" RCP E INV. = 845.44 8" PVC NW INV. = 845.49 SUMP ELEV. = 845.24	BENCHMARK #1 ELEV. = 852.30 (NAV088) PK NAIL, WEST SIDE UTILITY POLE, WEST SIDE OF OKEMOS ROAD, 242' SOUTH OF BUILDING #4681 OKEMOS ROAD.
CATCH BASIN #125 RIM ELEV. = 848.94 8" RCP E INV. = 845.44 8" PVC NW INV. = 845.49 SUMP ELEV. = 845.24	BENCHMARK #2 ELEV. = 846.57 (NAV088) PK NAIL, SOUTHEAST SIDE UTILITY POLE, WEST SIDE OF ARDMORE AVENUE, ON LINE WITH SOUTHERLY PARCEL LINE.
CATCH BASIN #125 RIM ELEV. = 848.94 8" RCP E INV. = 845.44 8" PVC NW INV. = 845.49 SUMP ELEV. = 845.24	BENCHMARK #3 ELEV. = 856.59 (NAV088) RAILROAD SPIKE, NORTHWEST SIDE UTILITY POLE, NORTHEAST QUADRANT OF ARDMORE AVENUE AND HAMILTON ROAD.



NOTE: WATER SHALL HAVE 10' HORIZONTAL SEPARATION & 18" VERTICAL SEPARATION FROM ALL SEWERS.

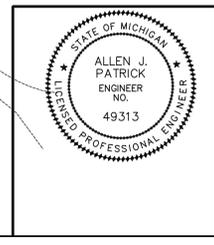
EX. SANITARY SEWER INVENTORIES

SANITARY MANHOLE #200 RIM ELEV. = 845.38 8" VCP N INV. = 836.58 8" VCP SE INV. = 836.72 8" VCP S INV. = 835.23 8" VCP W INV. = 835.13	SANITARY MANHOLE #201 RIM ELEV. = 851.97 8" VCP INV. = 844.36 8" VCP E INV. = 835.34 8" VCP S INV. = 835.23 8" VCP W INV. = 835.13	SANITARY MANHOLE #202 (ADJUST TO 844.08) RIM ELEV. = 844.08 8" VCP N INV. = 832.60 8" VCP E INV. = 831.28 8" VCP S INV. = 833.77 8" VCP W INV. = 831.17	SANITARY MANHOLE #203 (ADJUST TO 850.54) RIM ELEV. = 847.01 8" VCP S INV. = 834.83 6" VCP W INV. = 835.03	SANITARY MANHOLE #204 RIM ELEV. = 852.05 8" VCP N INV. = 840.56	SANITARY MANHOLE #205 RIM ELEV. = 849.65 8" VCP N INV. = 838.88 8" VCP E INV. = 838.97 8" VCP S INV. = 839.51 8" VCP W INV. = 839.58	SANITARY MANHOLE #206 RIM ELEV. = 852.02 (ADJUST TO 852.85) 8" VCP N INV. = 840.83 8" VCP E INV. = 840.33 8" VCP S INV. = 840.71	SANITARY MANHOLE #207 RIM ELEV. = 846.39 8" VCP N INV. = 835.95 8" VCP E INV. = 837.75 8" VCP S INV. = 837.00 8" VCP W INV. = 837.61	SANITARY MANHOLE #208 RIM ELEV. = 851.62 (ADJUST TO 851.26) 8" VCP E INV. = 840.11 6" VCP SW INV. = 840.41	SANITARY MANHOLE #209 RIM ELEV. = 842.15 8" VCP N INV. = 833.91 8" VCP S INV. = 833.91 8" VCP W INV. = 840.54	SANITARY MANHOLE #210 RIM ELEV. = 839.83 8" VCP N INV. = 829.25 8" VCP E INV. = 829.30	SANITARY MANHOLE #211 RIM ELEV. = 836.82 8" VCP N INV. = 828.24 8" VCP N INV. = 830.50 8" VCP S INV. = 828.26 8" VCP W INV. = 828.22	SANITARY MANHOLE #212 RIM ELEV. = 853.37 8" VCP E INV. = 837.05 8" VCP S INV. = 836.88 8" VCP W INV. = 836.98	SANITARY MANHOLE #213 RIM ELEV. = 854.01 6" VCP N INV. = 841.73 8" VCP W INV. = 841.31
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PROPOSED PERVIOUS/IMPERVIOUS AREAS:

TOTAL PROPERTY = 173,989 S.F.
TOTAL PERVIOUS = 13,755 S.F. = 7.91%
IMPERVIOUS = 160,234 S.F. = 92.09%
(GREENSPACE & PLANTERS WITHIN ROAD R.O.W. NOT COUNTED)



REVISIONS	DESIGNER: A.J.P.	APPROVED BY: A.J.P.
1-31-22 SUBMITTAL	PROJECT MGR.: A.J.P.	SHEET 9 OF 16
6-7-22 PRELIM	AUTHORIZED BY: VILLAGE OF OKEMOS, LLC	JOB #: 99191
8-29-22 MUPD		
10-7-22 SUBMITTAL		

KEBS, INC. KYES ENGINEERING
2116 HASLETT ROAD, HASLETT, MI 48840
PH. 517-339-1014 FAX. 517-339-8047

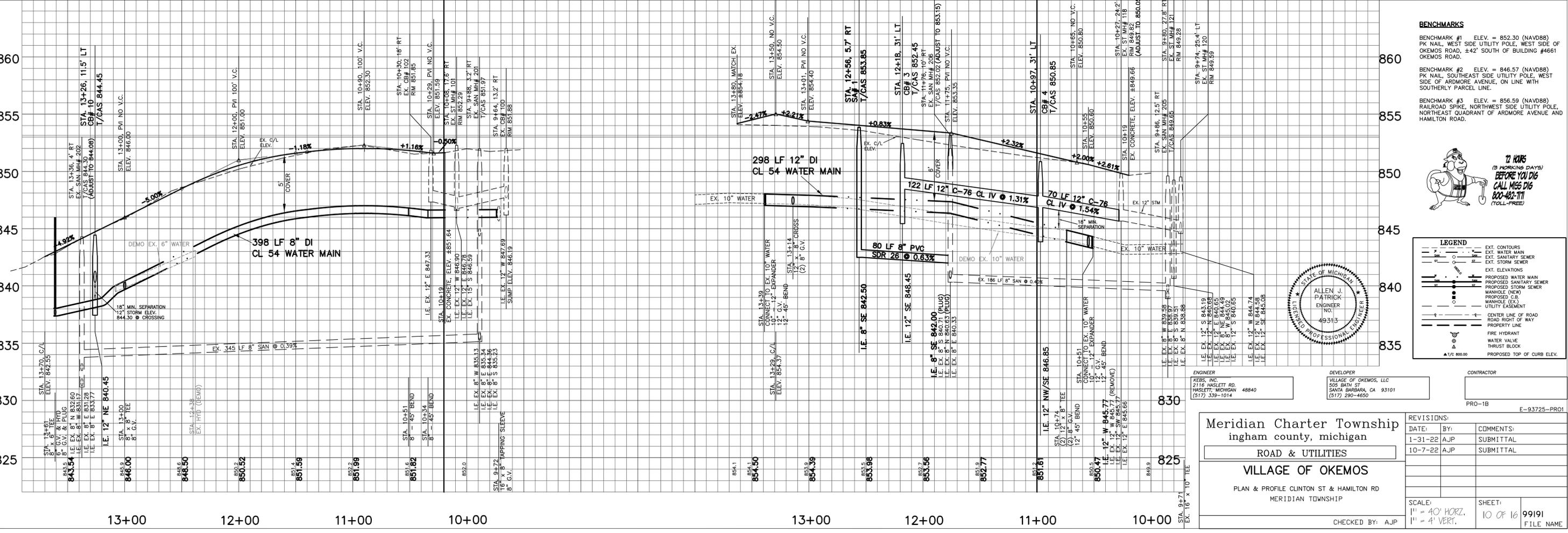
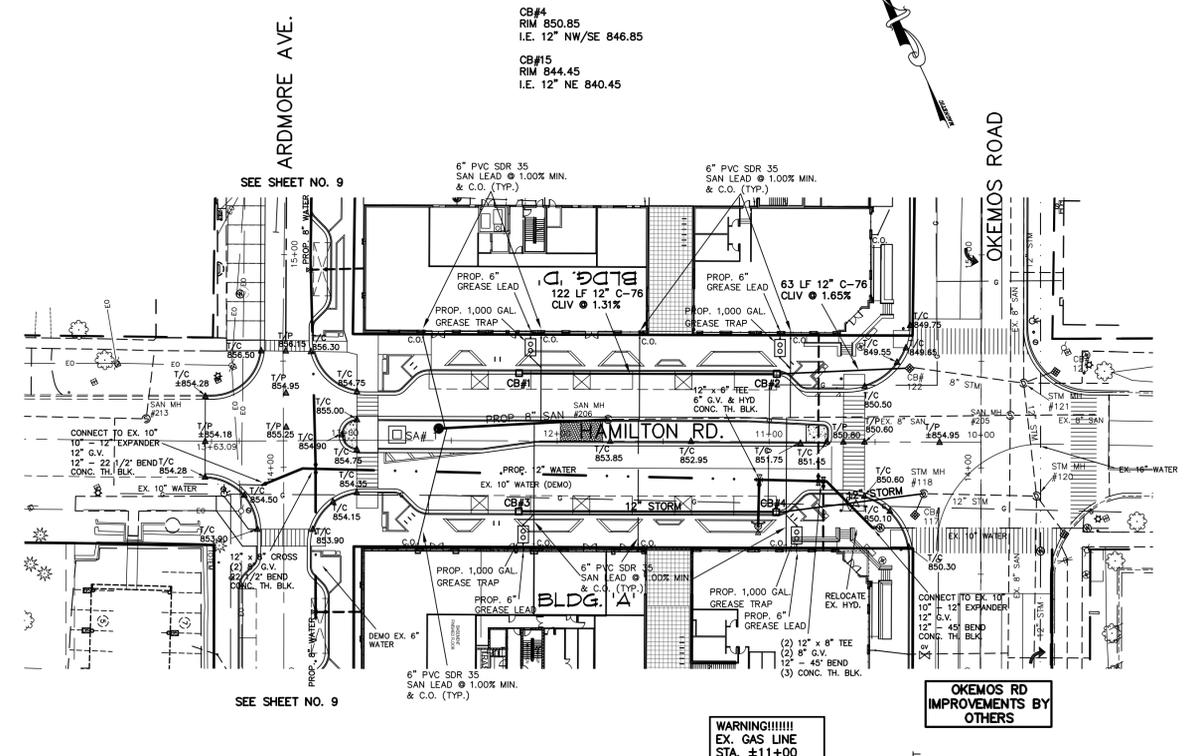
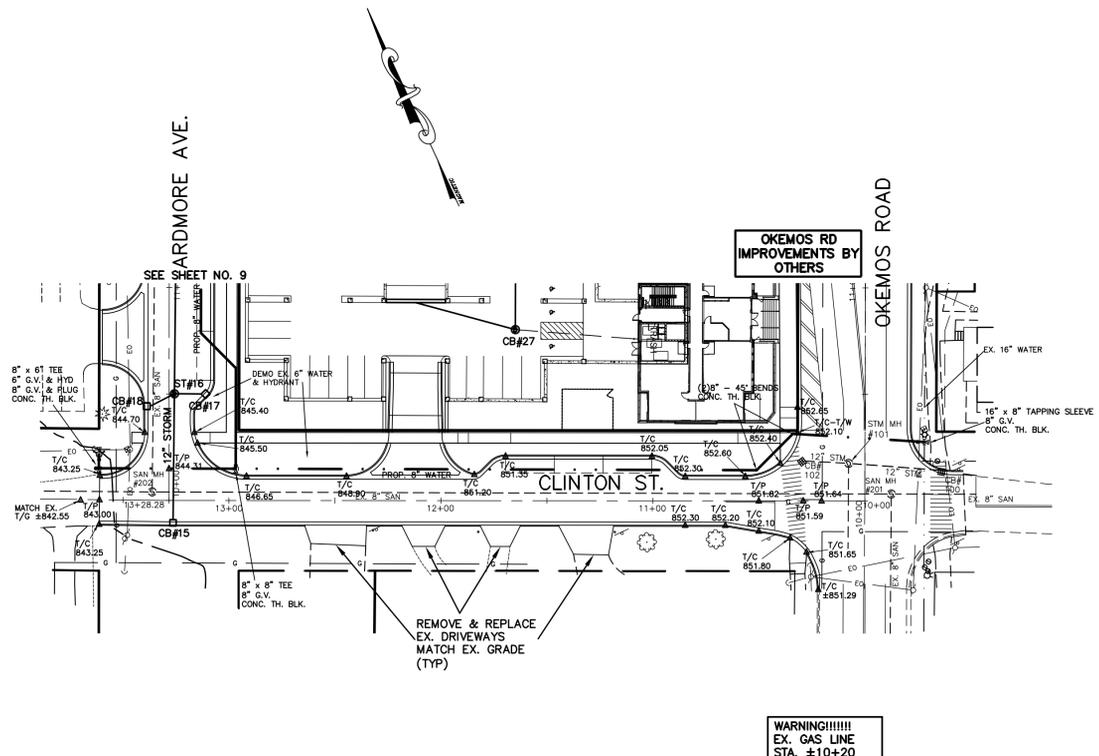
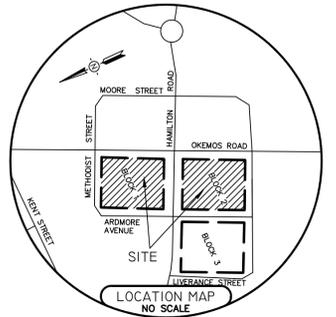
Village of Okemos
PERVIOUS/IMPERVIOUS PLAN

E-93725-MUPD-4-12-19
SURVEY#93725ALT

NOTE: SEE GRADING PLAN (SHEET 6) FOR DETAILED PROPOSED CURB & SIDEWALK GRADES

- PROPOSED STORM INVENTORY:
- CB#1
RIM 852.45
I.E. 12" SE 848.45
 - CB#2
RIM 850.85
I.E. 12" NW/SE 846.65
 - CB#3
RIM 852.45
I.E. 12" SE 848.45
 - CB#4
RIM 850.85
I.E. 12" NW/SE 846.65
 - CB#5
RIM 844.45
I.E. 12" NE 840.45

NOTE: WATER SHALL HAVE 10' HORIZONTAL SEPARATION & 18" VERTICAL SEPARATION FROM ALL SEWERS.



- BENCHMARKS**
- BENCHMARK #1 ELEV. = 852.30 (NAVD88) PK NAIL, WEST SIDE UTILITY POLE, WEST SIDE OF OKEMOS ROAD, ±42' SOUTH OF BUILDING #4661 OKEMOS ROAD.
 - BENCHMARK #2 ELEV. = 846.57 (NAVD88) PK NAIL, SOUTHEAST SIDE UTILITY POLE, WEST SIDE OF ARDMORE AVENUE, ON LINE WITH SOUTHERLY PARCEL LINE.
 - BENCHMARK #3 ELEV. = 856.59 (NAVD88) RAILROAD SPIKE, NORTHWEST SIDE UTILITY POLE, NORTHEAST QUADRANT OF ARDMORE AVENUE AND HAMILTON ROAD.



LEGEND

- EXT. CONTOURS
- EXT. WATER MAIN
- EXT. SANITARY SEWER
- EXT. STORM SEWER
- EXT. ELEVATIONS
- PROPOSED WATER MAIN
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED C.B. MANHOLE (EX.)
- UTILITY EASEMENT
- CENTER LINE OF ROAD
- ROAD RIGHT OF WAY
- PROPERTY LINE
- FIRE HYDRANT
- WATER VALVE
- THRUST BLOCK
- PROPOSED TOP OF CURB ELEV.

ENGINEER: KEES, INC. 2116 HASLETT RD. HASLETT, MICHIGAN (517) 339-1014 48840

DEVELOPER: VILLAGE OF OKEMOS, LLC 505 BATH ST. SANTA BARBARA, CA 93101 (817) 290-4650

CONTRACTOR: PRO-1B E-93725-PRO1

Meridian Charter Township
Ingham County, Michigan
ROAD & UTILITIES
VILLAGE OF OKEMOS
PLAN & PROFILE CLINTON ST & HAMILTON RD
MERIDIAN TOWNSHIP

REVISIONS:

DATE:	BY:	COMMENTS:
1-31-22	AJP	SUBMITTAL
10-7-22	AJP	SUBMITTAL

SCALE: 1" = 40' HORIZ.
1" = 4' VERT.

SHEET: 10 OF 16
99191
FILE NAME

CHECKED BY: AJP

NOTE: SEE GRADING PLAN (SHEET 6)
FOR DETAILED PROPOSED CURB &
SIDEWALK GRADES

PROPOSED STORM INVENTORY

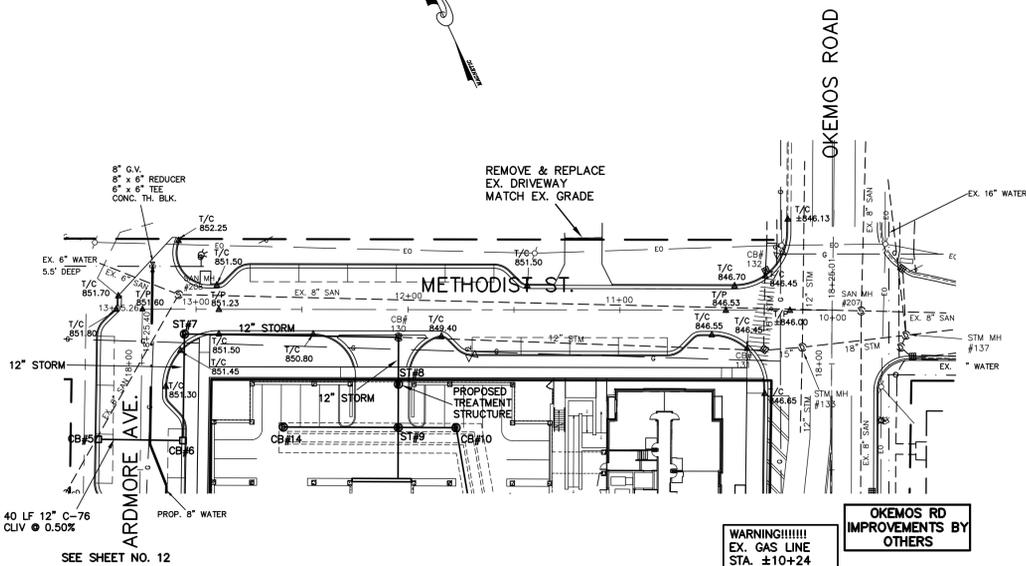
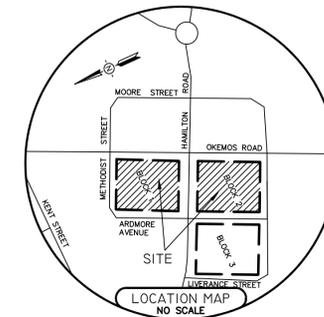
CB#
RM 850.45
I.E. 12" SE 846.45

CB#
RM 850.45
I.E. 12" NW/NE 846.25

ST# (CS-4)
RM 850.80
I.E. 12" NE/SW 845.04



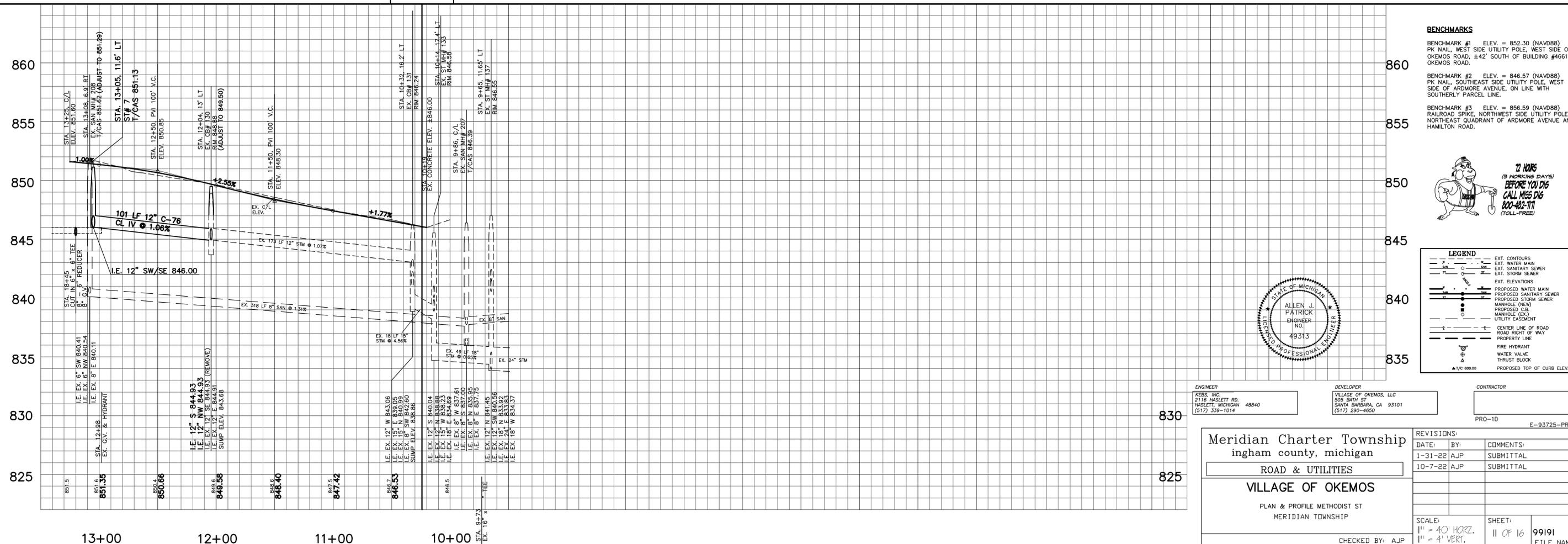
NOTE: WATER SHALL HAVE 10' HORIZONTAL
SEPARATION & 18" VERTICAL SEPARATION FROM
ALL SEWERS.



WARNING!!!!!!
EX. GAS LINE
STA. ±10+24

OKEMOS RD
IMPROVEMENTS BY
OTHERS

SEE SHEET NO. 12



BENCHMARKS

BENCHMARK #1 ELEV. = 852.30 (NAVD88)
PK NAIL, WEST SIDE UTILITY POLE, WEST SIDE OF
OKEMOS ROAD, ±42' SOUTH OF BUILDING #4661
OKEMOS ROAD.

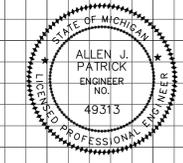
BENCHMARK #2 ELEV. = 846.57 (NAVD88)
PK NAIL, SOUTHEAST SIDE UTILITY POLE, WEST
SIDE OF ARDMORE AVENUE, ON LINE WITH
SOUTHERLY PARCEL LINE.

BENCHMARK #3 ELEV. = 856.59 (NAVD88)
RAILROAD SPIKE, NORTHWEST SIDE UTILITY POLE,
NORTHEAST QUADRANT OF ARDMORE AVENUE AND
HAMILTON ROAD.



LEGEND

—	EXT. CONTOURS
—	EXT. WATER MAIN
—	EXT. SANITARY SEWER
—	EXT. STORM SEWER
—	EXT. ELEVATIONS
—	PROPOSED WATER MAIN
—	PROPOSED SANITARY SEWER
—	PROPOSED STORM SEWER
—	PROPOSED (NEW)
—	MANHOLE (EX.)
—	UTILITY EASEMENT
—	CENTER LINE OF ROAD
—	ROAD RIGHT OF WAY
—	PROPERTY LINE
—	FIRE HYDRANT
—	WATER VALVE
—	THRUST BLOCK
—	PROPOSED TOP OF CURB ELEV.



ENGINEER KEES, INC. 2116 HASLETT RD. TUSLETT, MICHIGAN (517) 339-1014 48840	DEVELOPER VILLAGE OF OKEMOS, LLC 505 BATH ST SANTA BARBARA, CA 93101 (817) 290-4650	CONTRACTOR PRO-1D E-93725-PRO1
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Meridian Charter Township
ingham county, michigan

VILLAGE OF OKEMOS

PLAN & PROFILE METHODIST ST
MERIDIAN TOWNSHIP

CHECKED BY: AJP

REVISIONS:		
DATE:	BY:	COMMENTS:
1-31-22	AJP	SUBMITTAL
10-7-22	AJP	SUBMITTAL

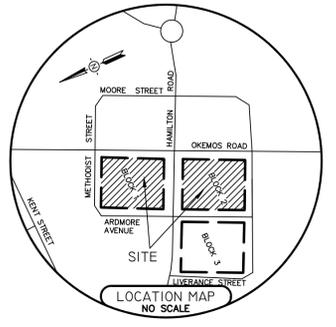
SCALE:
1" = 40' HORZ.
1" = 4' VERT.

SHEET:
11 OF 16

99191
FILE NAME

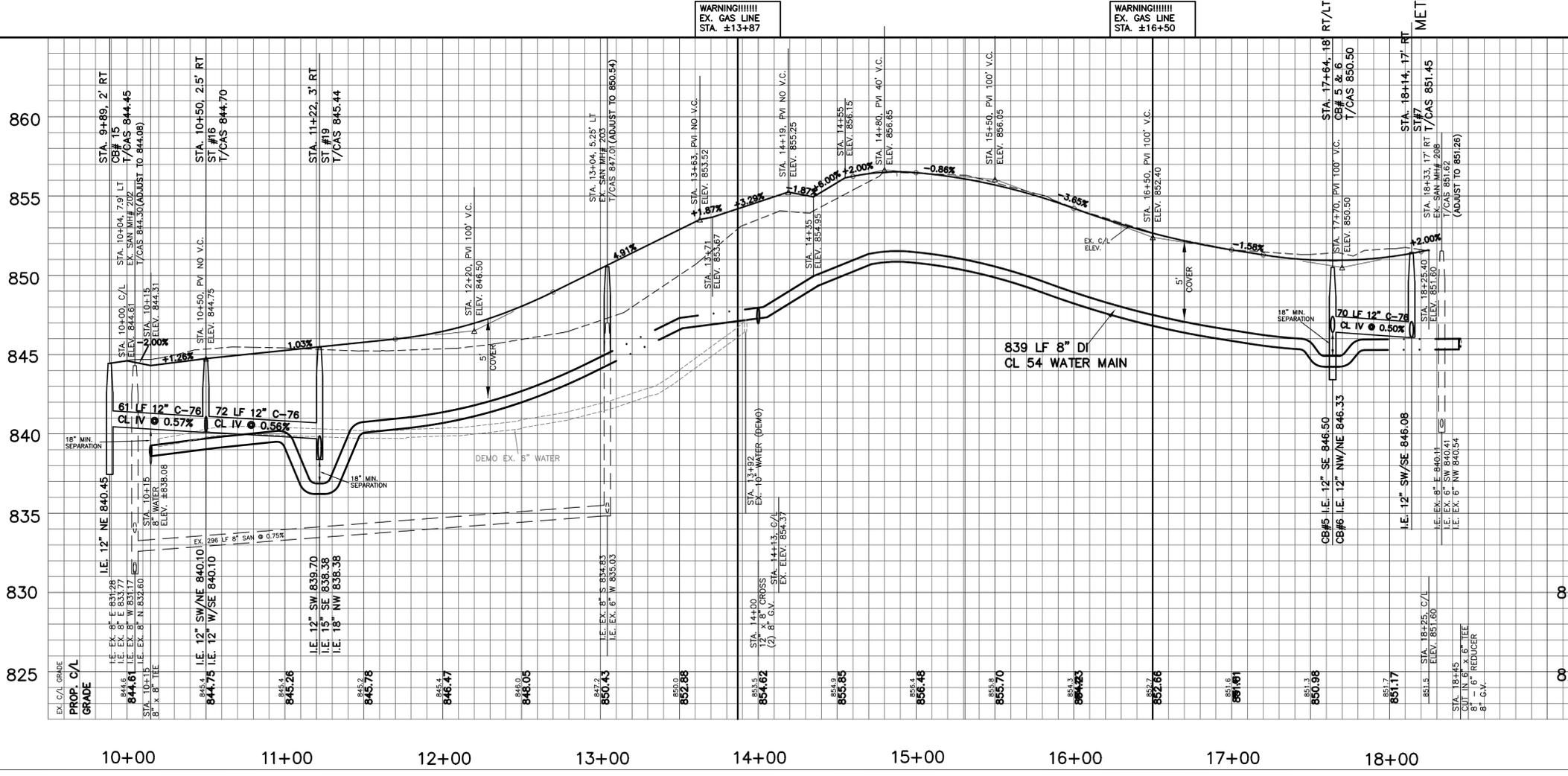
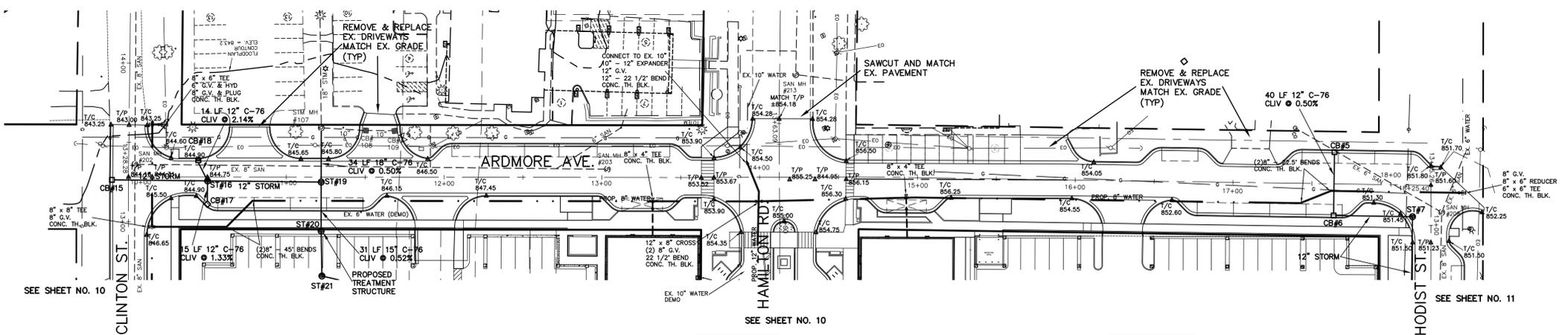
NOTE: SEE GRADING PLAN (SHEET 6)
FOR DETAILED PROPOSED CURB &
SIDEWALK GRADES

NOTE: WATER SHALL HAVE 10' HORIZONTAL
SEPARATION & 18" VERTICAL SEPARATION FROM
ALL SEWERS.



PROPOSED STORM INVENTORY

CB#5 RM 850.45 I.E. 12" SE 848.45	CB#7 RM 844.30 I.E. 12" NW 840.30
CB#6 RM 850.45 I.E. 12" NW/NE 848.25	CB#8 RM 844.40 I.E. 12" E 840.40
ST#7 RM 851.13 I.E. 12" SW/SE 846.00	ST#9 RM 845.44 I.E. 12" SW 839.70
CB#15 RM 844.45 I.E. 12" NE 840.45	ST#20 (CS-4) RM 846.50 I.E. 15" NW/SE 838.54
ST#18 RM 844.70 I.E. 12" SW/NE 840.10 I.E. 12" W/SE 840.10	



BENCHMARKS

BENCHMARK #1 ELEV. = 852.30 (NAVD88)
PK NAIL, WEST SIDE UTILITY POLE, WEST SIDE OF OKEMOS ROAD, ±42' SOUTH OF BUILDING #4661 OKEMOS ROAD.

BENCHMARK #2 ELEV. = 846.57 (NAVD88)
PK NAIL, SOUTHWEST SIDE UTILITY POLE, WEST SIDE OF ARDMORE AVENUE, ON LINE WITH SOUTHERLY PARCEL LINE.

BENCHMARK #3 ELEV. = 856.59 (NAVD88)
RAILROAD SPIKE, NORTHWEST SIDE UTILITY POLE, NORTHEAST QUADRANT OF ARDMORE AVENUE AND HAMILTON ROAD.

LEGEND

- EXT. CONTOURS
- EXT. WATER MAIN
- EXT. SANITARY SEWER
- EXT. STORM SEWER
- EXT. ELEVATIONS
- PROPOSED WATER MAIN
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- MANHOLE (EX.)
- UTILITY EASEMENT
- CENTER LINE OF ROAD
- ROAD RIGHT OF WAY
- PROPERTY LINE
- FIRE HYDRANT
- WATER VALVE
- THRUST BLOCK
- PROPOSED TOP OF CURB ELEV.

Meridian Charter Township
ingham county, michigan

ROAD & UTILITIES

VILLAGE OF OKEMOS

PLAN & PROFILE ARDMORE AVE
MERIDIAN TOWNSHIP

ENGINEER
KEES, INC.
2116 HASLETT RD.
HASLETT, MICHIGAN 48840
(517) 339-1014

DEVELOPER
VILLAGE OF OKEMOS, LLC
505 BATH ST
SANTA BARBARA, CA 93101
(817) 290-4650

CONTRACTOR
PRO-1C
E-93725-PRO1

REVISIONS:

DATE:	BY:	COMMENTS:
1-31-22	AJP	SUBMITTAL
10-7-22	AJP	SUBMITTAL

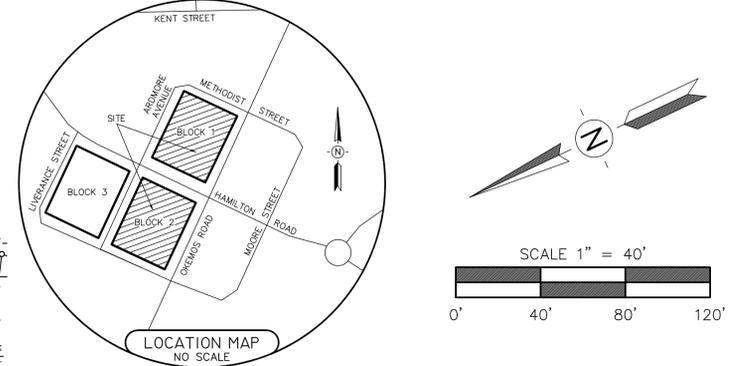
SCALE:
1" = 40' HORIZ.
1" = 4' VERT.

SHEET:
12 OF 16

99191
FILE NAME

VILLAGE OF OKEMOS

MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN



LEGAL DESCRIPTIONS:

Lots 1, 2, 3, 4, 5, 6, 7 & 8 in Block 5, Village of Okemos (formerly Village of Hamilton), Meridian Township, Ingham County, Michigan.

Lots 1, 2, 3, 4, 5, 6, 7 & 8 in Block 6, Village of Okemos (formerly Village of Hamilton), Meridian Township, Ingham County, Michigan.

BENCHMARKS

BENCHMARK #1 ELEV. = 852.30 (NAVD88)
PK NAIL, WEST SIDE UTILITY POLE, WEST SIDE OF OKEMOS ROAD,
±42' SOUTH OF BUILDING #4661 OKEMOS ROAD.

BENCHMARK #2 ELEV. = 846.57 (NAVD88)
PK NAIL, SOUTHEAST SIDE UTILITY POLE, WEST SIDE OF ARDMORE AVENUE,
ON LINE WITH SOUTHERLY PARCEL LINE.

BENCHMARK #3 ELEV. = 856.59 (NAVD88)
RAILROAD SPIKE, NORTHWEST SIDE UTILITY POLE, NORTHEAST
QUADRANT OF ARDMORE AVENUE AND HAMILTON ROAD.

LEGEND

●	= SET 1/2" BAR WITH CAP	⊙	= SANITARY MANHOLE
□	= FOUND IRON AS NOTED	⊖	= DRAINAGE MANHOLE
—	= DEED LINE	⊕	= ELECTRIC MANHOLE
—	= DISTANCE NOT TO SCALE	⊗	= TELEPHONE MANHOLE
—	= FENCE	⊞	= CATCHBASIN
▨	= ASPHALT	○	= SANITARY CLEANOUT
▩	= CONCRETE	⊕	= FIRE HYDRANT
▧	= GRAVEL	⊖	= VALVE
▤	= ADA PLATE	⊕	= UTILITY POLE
—	= EXISTING SPOT ELEVATION	☆	= LIGHT POLE
—	= EXISTING CONTOUR ELEVATION	⊕	= GROUND LIGHT
—	= BUILDING OVERHANG	⊕	= TRAFFIC SIGNAL
—	= SANITARY SEWER	—	= GUY WIRE
—	= STORM SEWER	⊕	= UTILITY PEDESTAL
—	= WATER LINE	⊕	= TRANSFORMER
—	= GAS LINE	⊕	= HANDHOLE
—	= UNDERGROUND TELEPHONE	⊕	= ELECTRIC METER
—	= UNDERGROUND TELEVISION	⊕	= GAS METER
—	= UNDERGROUND ELECTRIC	⊕	= WATER METER
—	= OVERHEAD WIRES	⊕	= SIGN
⊕	= DECIDUOUS TREE	⊕	= POST
⊕	= CONIFEROUS TREE	⊕	= AIR CONDITIONING UNIT

EXISTING FEATURES PLAN

REVISIONS	COMMENTS	KEBS, INC. ENGINEERING AND LAND SURVEYING	
04/15/2019	EXISTING PLAN	2116 HASLETT ROAD, HASLETT, MI 48840 PH. 517-339-1014 FAX 517-339-8047 WWW.KEBS.COM	
		Marshall Office — Ph. 269-781-9800	
		DRAWN BY: SSF	SECTION 21, T4N, R1W
		FIELD WORK BY: NAW/SL	JOB NUMBER:
		SHEET 13 OF 16	E-99191

SEWER INVENTORIES

CATCH BASIN #100 RIM ELEV. = 851.88 8" RCP W INV. = 847.69 TOP OF DEBRIS ELEV. = 847.66 SUMP ELEV. = 846.19	CATCH BASIN #110 RIM ELEV. = 844.72 12" RCP N INV. = 839.24 12" RCP SW INV. = 839.01 SUMP ELEV. = 838.12	STORM MANHOLE #101 RIM ELEV. = 852.29 12" RCP E INV. = 846.78 15" RCP S ELEV. = 846.59 12" RCP W INV. = 846.90 TOP OF DEBRIS ELEV. = 846.75	CATCH BASIN #102 RIM ELEV. = 851.85 12" RCP E INV. = 847.33 TOP OF DEBRIS ELEV. = 847.35	CATCH BASIN #103 RIM ELEV. = 852.09 SW RESTRICTOR PLATE INV. = 849.23 SW 12" SQUARE OPENING INV. = 848.13 SUMP ELEV. = 846.89	CATCH BASIN #104 RIM ELEV. = 851.00 8" RCP N INV. = 847.68 TOP OF WATER ELEV. = 847.68 SUMP ELEV. = 846.60	CATCH BASIN #105 RIM ELEV. = 849.67 6" VCP NE INV. = 845.07 8" RCP S INV. = 844.91 SUMP ELEV. = 844.17	CATCH BASIN #106 RIM ELEV. = 850.60 8" PVC W TOP OF PIPE ELEV. = 849.12 TOP OF DEBRIS ELEV. = 848.80	STORM MANHOLE #107 RIM ELEV. = 845.42 10" RCP N INV. = 840.22 12" RCP NE INV. = 838.54 18" RCP W INV. = 837.26	CATCH BASIN #108 RIM ELEV. = 844.38 10" RCP N INV. = 840.43 10" RCP S INV. = 840.39 TOP OF DEBRIS ELEV. = 840.38	CATCH BASIN #109 RIM ELEV. = 844.37 10" RCP S INV. = 840.72 TOP OF DEBRIS ELEV. = 840.47	CATCH BASIN #111 RIM ELEV. = 844.66 12" RCP S INV. = 839.47 SUMP ELEV. = 839.06	CATCH BASIN #112 RIM ELEV. = 850.32 6" VCP E INV. = 847.30 6" VCP W INV. = 847.39 SUMP ELEV. = 847.22	CATCH BASIN #113 RIM ELEV. = 851.08 6" VCP W INV. = 848.40 TOP OF DEBRIS ELEV. = 848.38	CATCH BASIN #114 RIM ELEV. = 850.55 6" VCP SW INV. = 848.23 TOP OF DEBRIS ELEV. = 848.23	CATCH BASIN #115 RIM ELEV. = 850.68 4" PVC SE INV. = 848.55 6" PVC SW INV. = 848.52 SUMP ELEV. = 848.43	CATCH BASIN #116 RIM ELEV. = 850.06 12" RCP NE INV. = 846.01 4" VCP NW INV. = 848.11 TOP OF DEBRIS ELEV. = 845.76	CATCH BASIN #117 RIM ELEV. = 850.01 12" RCP NE INV. = 845.88 TOP OF DEBRIS ELEV. = 845.88	STORM MANHOLE #118 RIM ELEV. = 849.82 12" RCP E INV. = 845.66 12" RCP SW INV. = 845.77 TOP OF DEBRIS ELEV. = 845.86	CATCH BASIN #119 RIM ELEV. = 849.25 12" RCP NW INV. = 845.94 SUMP ELEV. = 844.75	STORM MANHOLE #120 RIM ELEV. = 849.59 4" S INV. = 844.58 12" RCP SE INV. = 845.28 12" RCP NW INV. = 845.19 SUMP ELEV. = 844.81	CATCH BASIN #121 RIM ELEV. = 849.28 12" RCP N INV. = 840.68 8" RCP NE INV. = 844.49 12" RCP E INV. = 840.65 12" RCP S INV. = 843.19 8" RCP W INV. = 845.02	CATCH BASIN #122 RIM ELEV. = 849.72 8" RCP E INV. = 845.86 SUMP ELEV. = 843.42	CATCH BASIN #123 RIM ELEV. = 849.30 8" RCP SW INV. = 844.59 TOP OF DEBRIS ELEV. = 844.33	CATCH BASIN #124 RIM ELEV. = 848.90 8" METAL E INV. = 841.49 12" RCP S INV. = 841.49 15" RCP W INV. = 845.11 SUMP ELEV. = 841.49	CATCH BASIN #125 RIM ELEV. = 848.84 8" RCP E INV. = 845.44 6" PVC NW INV. = 845.49 SUMP ELEV. = 845.24	CATCH BASIN #126 RIM ELEV. = 848.50 6" PVC SE INV. = 846.15 TOP OF DEBRIS ELEV. = 846.10	CATCH BASIN #127 RIM ELEV. = 848.24 8" PVC N INV. = 844.49 SUMP ELEV. = 844.04	STORM MANHOLE #128 RIM ELEV. = 847.24 8" VCP NE INV. = 844.05 8" PVC S INV. = 844.05 12" RCP SW INV. = 840.56 18" RCP W INV. = 834.37	CATCH BASIN #129 RIM ELEV. = 848.81 4" S INV. = 845.28 12" RCP NW INV. = 845.19 SUMP ELEV. = 844.81	CATCH BASIN #130 RIM ELEV. = 848.88 12" RCP E INV. = 844.91 12" RCP SE INV. = 844.93 SUMP ELEV. = 843.68	CATCH BASIN #131 RIM ELEV. = 846.24 15" RCP N INV. = 840.99 15" RCP E INV. = 839.05 8" VCP SW INV. = 842.60 12" RCP W INV. = 843.06 SUMP ELEV. = 838.86	CATCH BASIN #132 RIM ELEV. = 846.00 15" RCP S INV. = 841.09 SUMP ELEV. = 838.70	CATCH BASIN #133 RIM ELEV. = 846.58 12" RCP N INV. = 838.88 18" RCP E INV. = 834.69 15" RCP S INV. = 841.49 15" RCP W INV. = 838.23 SUMP ELEV. = 841.49	CATCH BASIN #134 RIM ELEV. = 846.71 TOP OF DEBRIS ELEV. = 845.41	STORM MANHOLE #135 RIM ELEV. = 846.67 12" RCP NE INV. = 840.73 12" RCP SE INV. = 842.62 SUMP ELEV. = 838.56	CATCH BASIN #136 RIM ELEV. = 846.68 12" RCP E INV. = 843.69 12" RCP NW INV. = 842.89 SUMP ELEV. = 840.92	STORM MANHOLE #137 RIM ELEV. = 846.55 12" RCP N INV. = 841.45 18" RCP NE INV. = 833.92 8" PVC S INV. = 833.83 12" RCP SW INV. = 840.56 18" RCP W INV. = 834.37	CATCH BASIN #138 RIM ELEV. = 846.01 12" RCP S INV. = 841.59 SUMP ELEV. = 840.09	CATCH BASIN #140 RIM ELEV. = 838.40 8" PVC NW INV. = 836.40 SUMP ELEV. = 836.15	CATCH BASIN #141 RIM ELEV. = 839.97 18" RCP NW INV. = 834.70 18" RCP E INV. = 834.52 8" PVC SE INV. = 835.11	CATCH BASIN #142 RIM ELEV. = 841.24 12" RCP SE INV. = 834.56 18" RCP S INV. = 834.19 18" RCP W INV. = 834.14	CATCH BASIN #143 RIM ELEV. = 840.02 10" RCP N INV. = 835.36 12" RCP NW INV. = 835.34 SUMP ELEV. = 835.02	CATCH BASIN #144 RIM ELEV. = 841.65 6" PVC NE INV. = 840.41 4" PVC SE INV. = 838.15 10" RCP S INV. = 837.38 SUMP ELEV. = 836.75	STORM MANHOLE #145 RIM ELEV. = 837.27 18" RCP E INV. = 832.65 18" RCP S INV. = 832.97 18" RCP W INV. = 832.63	CATCH BASIN #146 RIM ELEV. = 836.82 6" PVC N INV. = 834.15 SUMP ELEV. = 833.47	CATCH BASIN #147 RIM ELEV. = 837.62 12" RCP S INV. = 833.02 10" RCP W INV. = 833.13 TOP OF DEBRIS INV. = 833.47	CATCH BASIN #148 RIM ELEV. = 834.15 10" RCP E INV. = 834.15 TOP OF DEBRIS INV. = 833.93	CATCH BASIN #149 RIM ELEV. = 851.94 6" VCP N INV. = 847.59 6" VCP S INV. = 847.49	CATCH BASIN #150 RIM ELEV. = 852.07 TOP OF DEBRIS INV. = 850.07	SANITARY MANHOLE #200 RIM ELEV. = 845.38 8" VCP N INV. = 836.58 8" VCP SE INV. = 836.72	SANITARY MANHOLE #201 RIM ELEV. = 851.97 8" VCP E INV. = 844.36 8" VCP S INV. = 835.34 8" VCP W INV. = 835.23 8" VCP W INV. = 831.17	SANITARY MANHOLE #202 RIM ELEV. = 844.30 8" VCP N INV. = 832.60 8" VCP E INV. = 831.28 8" VCP S INV. = 833.77 8" VCP W INV. = 831.17	SANITARY MANHOLE #203 RIM ELEV. = 847.00 8" VCP S INV. = 843.83 6" VCP W INV. = 835.03	SANITARY MANHOLE #204 RIM ELEV. = 852.05 8" VCP N INV. = 840.56	SANITARY MANHOLE #205 RIM ELEV. = 849.65 8" VCP N INV. = 838.88 8" VCP E INV. = 838.97 8" VCP S INV. = 839.51 8" VCP W INV. = 839.58	SANITARY MANHOLE #206 RIM ELEV. = 852.02 8" VCP N INV. = 840.63 8" VCP E INV. = 840.33 8" VCP S INV. = 840.71	SANITARY MANHOLE #207 RIM ELEV. = 846.39 8" VCP N INV. = 835.85 8" VCP E INV. = 837.75 8" VCP S INV. = 837.00 8" VCP W INV. = 837.61	SANITARY MANHOLE #208 RIM ELEV. = 851.62 6" VCP E INV. = 840.11 6" VCP SW INV. = 840.41 8" VCP NW INV. = 840.54	SANITARY MANHOLE #209 RIM ELEV. = 842.15 8" VCP N INV. = 833.91 8" VCP S INV. = 833.91	SANITARY MANHOLE #210 RIM ELEV. = 839.83 8" VCP N INV. = 829.25 8" VCP E INV. = 829.30	SANITARY MANHOLE #211 RIM ELEV. = 838.82 8" VCP N INV. = 828.24 8" VCP S INV. = 830.50 8" VCP S INV. = 828.26 8" VCP W INV. = 828.22	SANITARY MANHOLE #212 RIM ELEV. = 853.37 8" VCP E INV. = 837.05 8" VCP S INV. = 836.88 8" VCP W INV. = 836.98	SANITARY MANHOLE #213 RIM ELEV. = 854.01 6" VCP N INV. = 841.73 8" VCP W INV. = 841.31
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