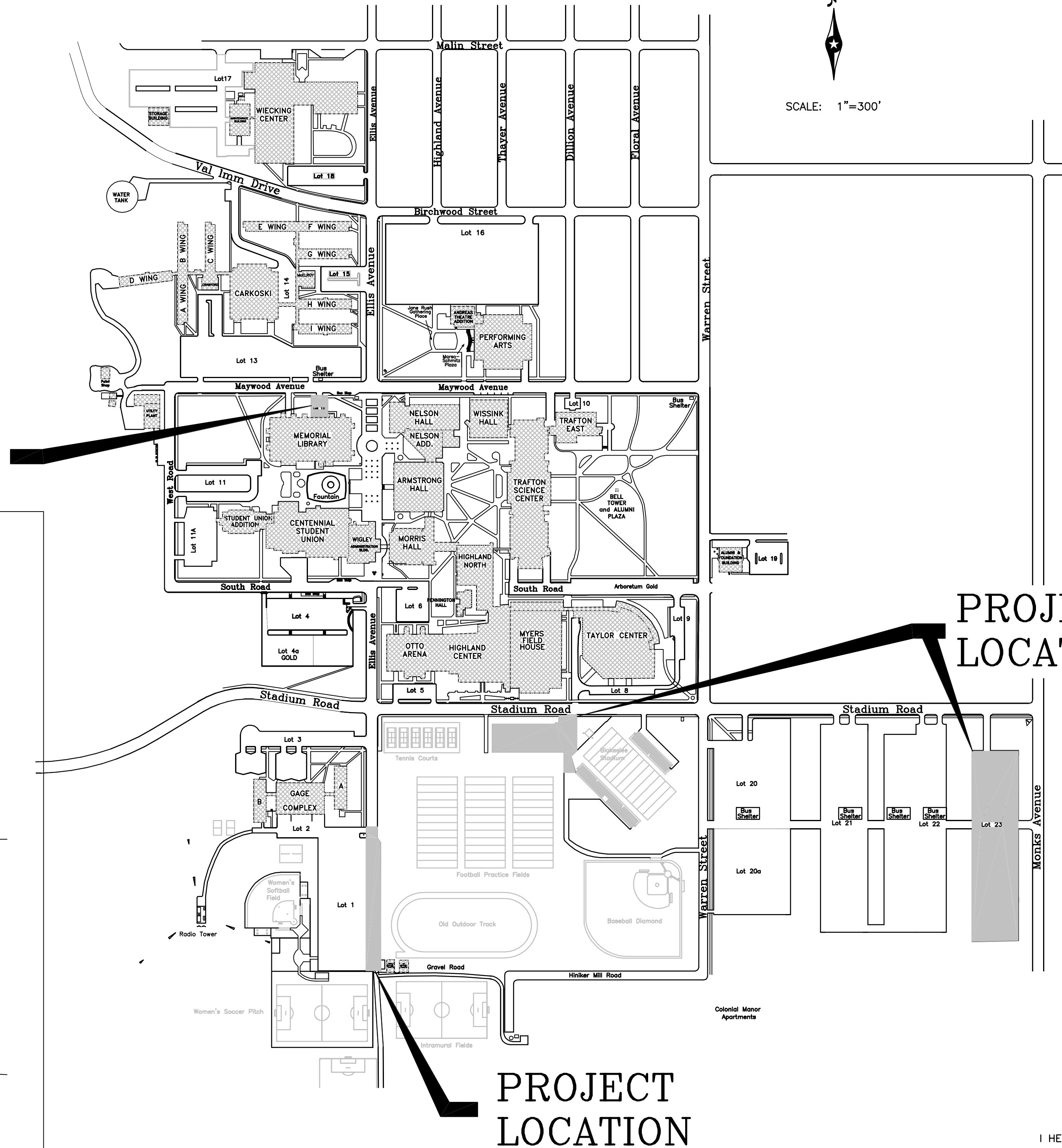
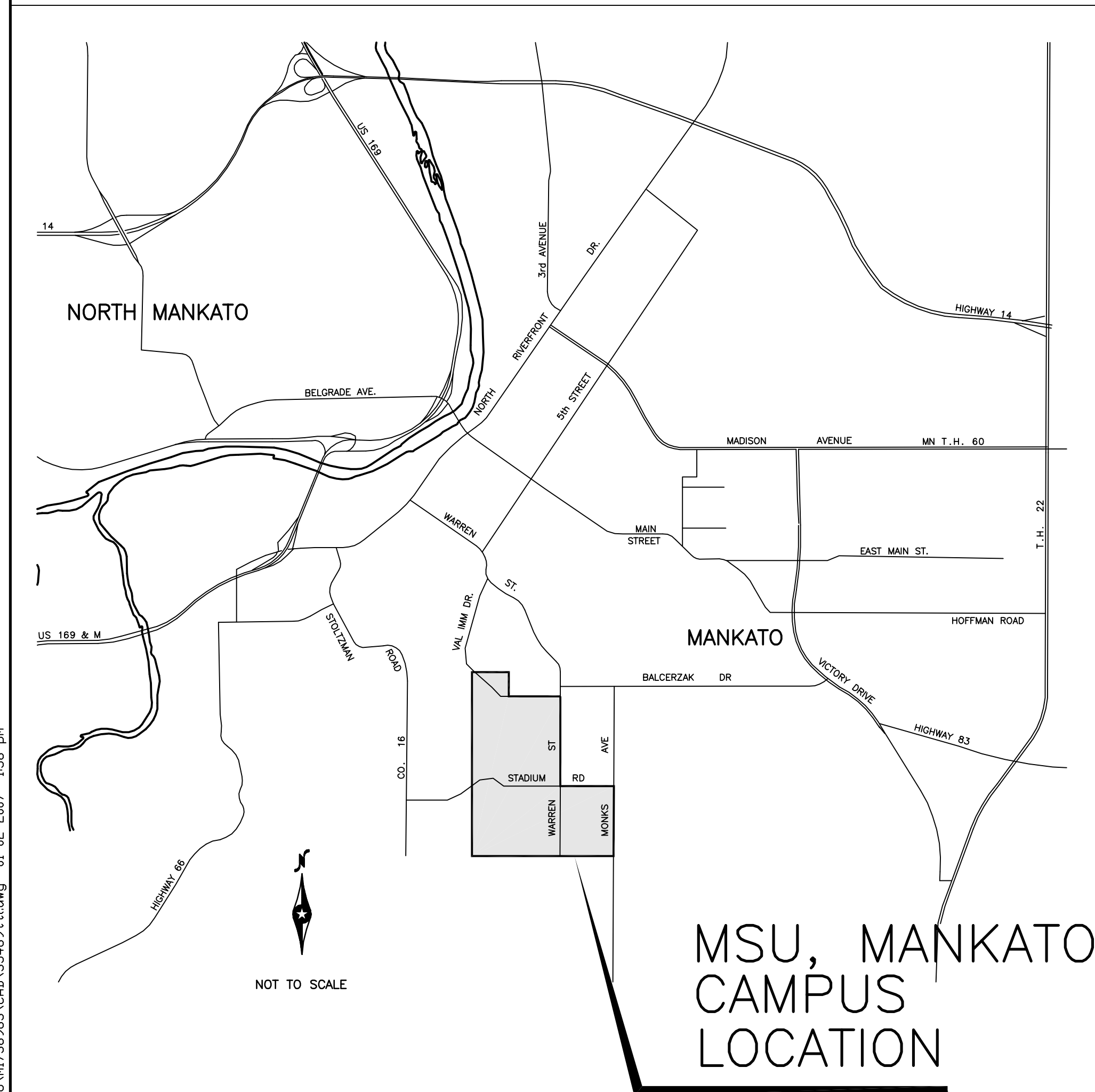


2007 PARKING LOT IMPROVEMENTS

MINNESOTA STATE UNIVERSITY, MANKATO
MANKATO, MINNESOTA

SHEET INDEX

- 1 TITLE SHEET
- 2 ESTIMATED QUANTITIES
- 3 DETAILS
- 4 LOT 7 & 12
- 5 LOT 23



SCALE: 1"=300'

EXISTING	
	CURB & GUTTER
	CONCRETE EDGE
	BITUMINOUS EDGE
	GRAVEL EDGE
	FENCE
	CULVERT
	DECIDUOUS TREE
	CONIFER TREE
	HEDGE
	TREE LINE
	TRAFFIC SIGN
	MANHOLE
	CATCH BASIN
	8" SAN INP
	4" FM INP
	15" STM INP
	TILE LINE
	4" WMN INP
	HYDRANT
	VALVE
	CURB STOP
	GAS
	POWER POLE
	LIGHT POLE
	PAD MOUNTED TRANSFORMER
	UE UNDERGROUND ELECTRIC
	OE OVERHEAD ELECTRIC
	UTILITY PEDESTAL/CABINET
	UT UNDERGROUND TELEPHONE
	TV UNDERGROUND TV CABLE
	BENCHMARK

PROPOSED	
	22+00 ALIGNMENT/CENTERLINE
	RIGHT OF WAY LINE
	TEMPORARY EASEMENT
	CONSTRUCTION LIMITS
	CURB & GUTTER
	BITUMINOUS EDGE
	CONCRETE EDGE
	GRAVEL EDGE
	SILT FENCE-PREASSEMBLED
	SILT FENCE-HEAVY DUTY
	EROSION PROTECTION AT INLET
	MANHOLE
	CATCH BASIN
	12" STM
	4" PERF PD
	CULVERT W/APRON

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

NATHAN J. HUETTL, P.E. REG. NO. 42774 DATE: 1/2/07

NOTE: EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN HAS BEEN PROVIDED BY THE UTILITY OWNER. THE CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS PRIOR TO COMMENCING CONSTRUCTION AS REQUIRED BY STATE LAW. NOTIFY GOPHER STATE ONE-CALL 1-800-252-1166 OR 612-454-0002.

THE 2000 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL APPLY.
ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES SHALL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

BOLTON & MENK, INC.
Consulting Engineers & Surveyors
MANKATO, MN FAIRMONT, MN SLEEPY EYE, MN WILLMAR, MN
BURNSVILLE, MN CHASKA, MN RAMSEY, MN AMES, IA

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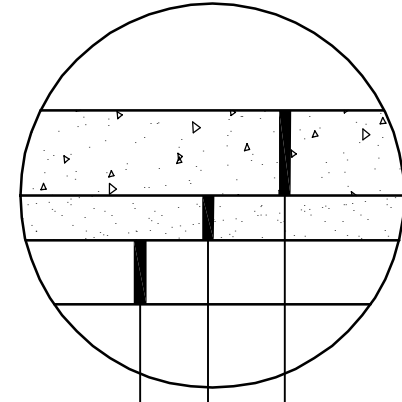
ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	ESTIMATED QUANT.	FINAL QUANTITY
SECTION A – LOT 1				
1	MOBILIZATION (WHOLE PROJECT)	LS	1	
2	TRAFFIC CONTROL (WHOLE PROJECT)	LS	1	
3	REMOVE BITUMINOUS PAVEMENT	SY	870	
4	BITUMINOUS PATCH	SY	500	
5	3" BITUMINOUS WEAR COURSE	SY	870	
6	CRACK FILL	LF	5,000	
SECTION B – LOT 7				
1	REMOVE, SALVAGE AND REPLACE CHAIN LINK FENCE	LS	1	
2	SAW CUT EXISTING BITUMINOUS PAVEMENT	LF	300	
3	REMOVE BITUMINOUS PAVEMENT	SY	1,600	
4	COMMON EXCAVATION	CY	390	
5	SALVAGE, STOCKPILE AND PLACE EXISTING AGGREGATE BASE	CY	265	
6	AGGREGATE BASE, CL. 5 (100% CRUSHED LIMESTONE) (CV)	CY	300	
7	3" BITUMINOUS NON-WEAR COURSE	SY	1,650	
8	2" BITUMINOUS WEAR COURSE	SY	1,650	
9	BITUMINOUS TACK COAT	GAL	100	
10	CRACK FILL	LF	2,100	
11	BITUMINOUS PATCH	SY	90	
12	4" UNDERDRAIN	LF	273	
13	CONNECT TO EXISTING STORM SEWER STRUCTURE	EA	1	
14	12" STORM SEWER PIPE	LF	121	
15	STORM SEWER STRUCTURE, DES. G	LF	10.26	
16	STORM SEWER CASTING ASSEMBLY	EA	3	
17	HYDROSEED (270 RT), FERTILIZE AND MULCH	ACRE	0.15	
18	EROSION AND SEDIMENT CONTROL	LS	1	

ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	ESTIMATED QUANT.	FINAL QUANTITY
SECTION C – LOT 12				
1	REMOVE BITUMINOUS PAVEMENT	SY	520	
2	REMOVE CONCRETE CURB	LF	148	
3	REMOVE CONCRETE SIDEWALK	SF	1,150	
4	COMMON EXCAVATION	CY	140	
5	SALVAGE, STOCKPILE AND PLACE AGGREGATE BASE	CY	100	
6	AGGREGATE BASE, CL. 5 (100% CRUSHED LIMESTONE)	CY	100	
7	CONCRETE CURB & GUTTER, DES. S418	LF	200	
8	6" FIBERMESH CONCRETE WALK	SF	1,250	
9	PED RAMP	EA	1	
10	REMOVE, SALVAGE AND REINSTALL SIGN	EA	1	
11	3" BITUMINOUS BASE COURSE	SY	500	
12	2" BITUMINOUS WEAR COURSE	SY	500	
13	BITUMINOUS TACK COAT	GAL	30	
14	4" PARKING LOT STRIPE	LF	550	
15	HANDICAP PARKING SYMBOL	EA	1	
16	SOD	SY	350	
17	EROSION AND SEDIMENT CONTROL	LS	1.00	
SECTION D – LOT 23				
1	PREPARE EXISTING AGGREGATE BASE	LS	1	
2	AGGREGATE BASE, CL. 5, (100% CRUSHED LIMESTONE)	CY	50	
3	REMOVE AND REPLACE CONCRETE CURB & GUTTER	LF	50	
4	2" BITUMINOUS BASE COURSE	SY	14,550	
5	1.5" BITUMINOUS WEAR COURSE	SY	14,550	
6	BITUMINOUS TACK COAT	GAL	730	
7	CLEAN EXISTING CATCH BASINS	EA	6	
8	4" PARKING LOT STRIPE	LF	9,850	
9	EROSION AND SEDIMENT CONTROL	LS	1	

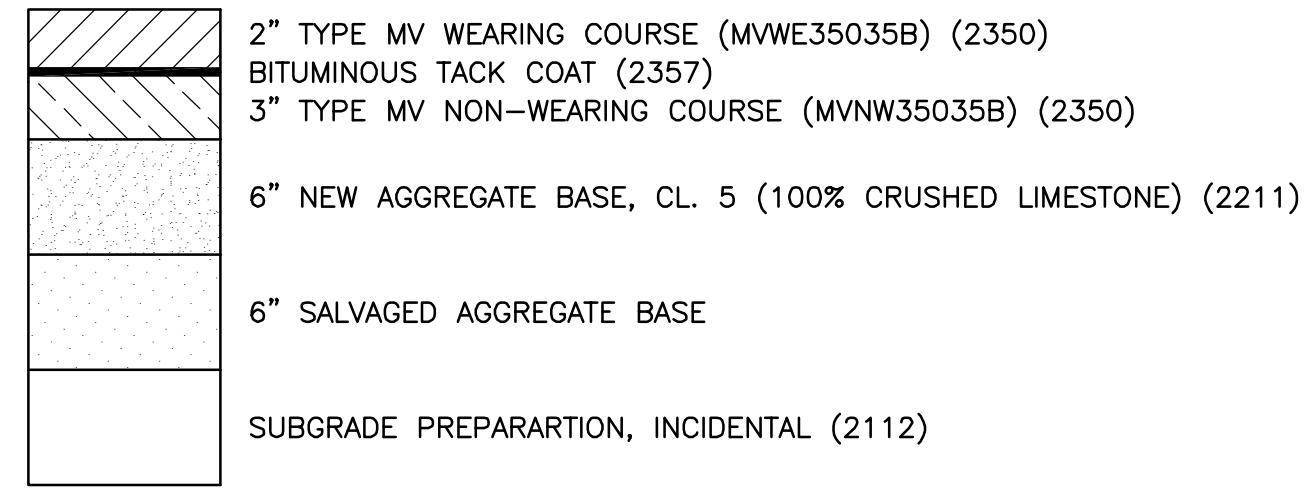




6" FIBER MESH CONC. SIDEWALK (2531)
 6" AGGREGATE BASE, CL. 5 (2211)
 (INCIDENTAL TO SIDEWALK)
 SUBGRADE PREPARATION (2112) (INCIDENTAL)

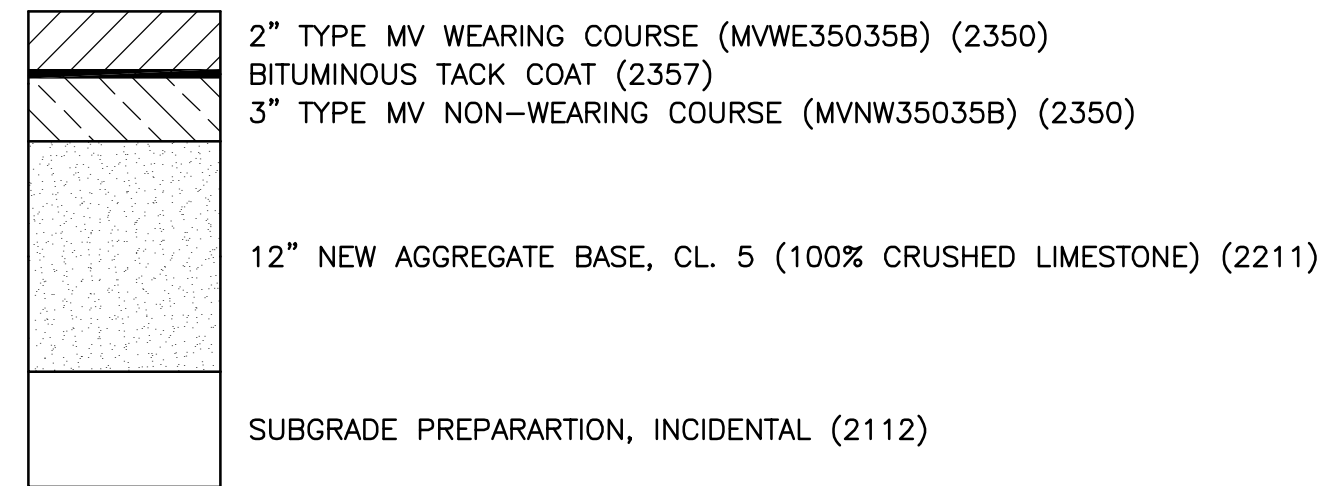
CONCRETE WALK
 NOT TO SCALE

LOT 7 & LOT 12



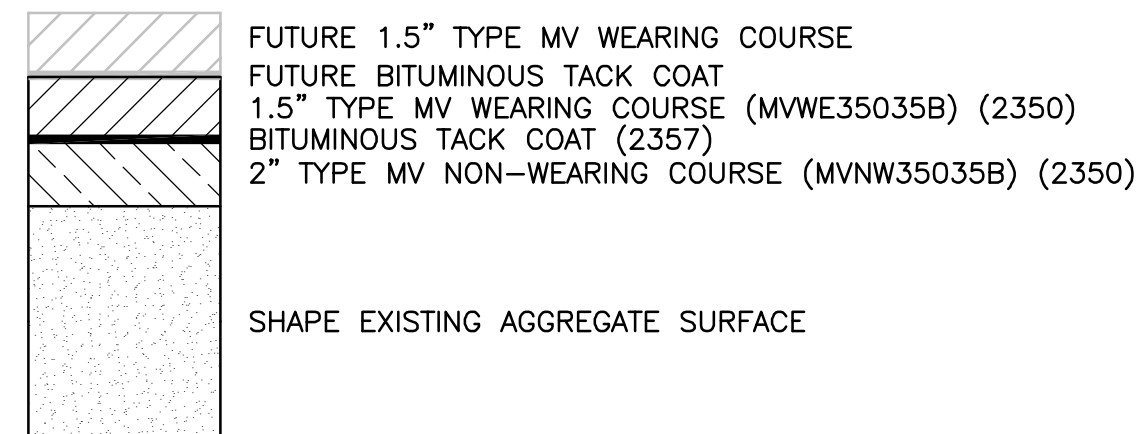
RECONSTRUCT BITUMINOUS PAVEMENT TYPICAL SECTION
 NOT TO SCALE

LOT 12

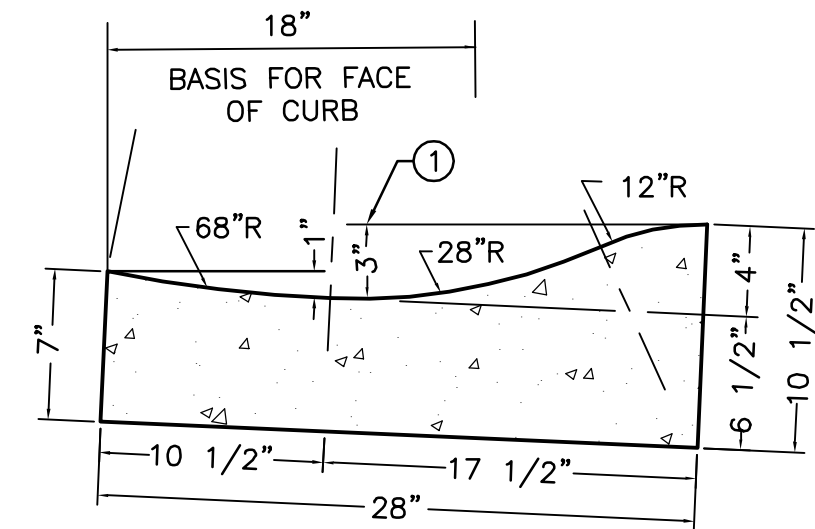


NEW BITUMINOUS PAVEMENT TYPICAL SECTION
 NOT TO SCALE

LOT 23

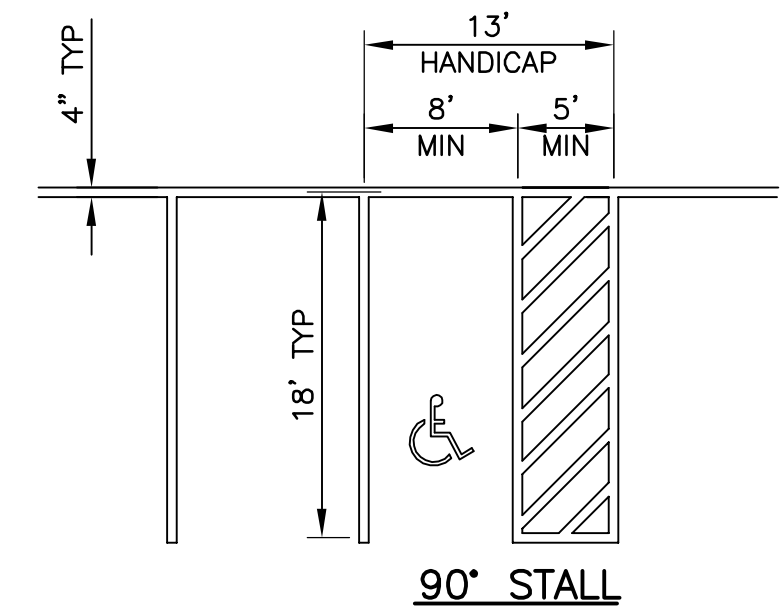


NEW BITUMINOUS PAVEMENT TYPICAL SECTION
 NOT TO SCALE

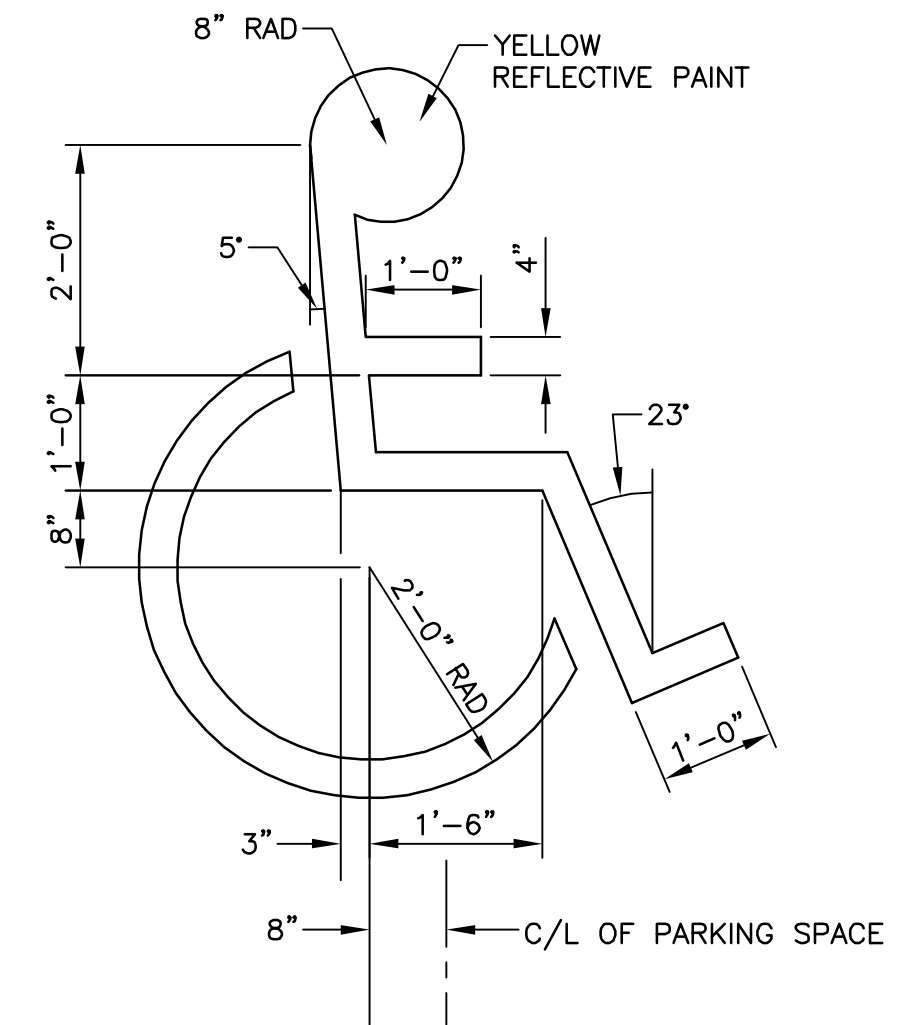


NOTE:
 CURB SHALL BE PLACED IN A TILTED POSITION AS SUCH TO PROVIDE A 3" DEPTH FROM THE TOP OF CURB TO THE FLOWLINE WHEN MEASURED ON A LEVEL PLANE.

MOUNTABLE CONCRETE CURB
 (MODIFIED S418 "EDINA STYLE")
 NOT TO SCALE



90° STALL



INTERNATIONAL HANDICAP SYMBOL
 NOT TO SCALE

* NOTE:
 FOR 60' HANDICAP PARKING, A 5' WIDE PAINTED LANE AREA IS NEEDED FOR PASSENGER AND DRIVER LOADING/UNLOADING. LANES CAN BE SHARED BY ADJACENT HANDICAP STALLS.

HANDICAP PARKING STRIPING
 NOT TO SCALE

10' WIDE 90°, 9' WIDE 60° PARKING RATIO
 1/25 HANDICAPPED/TOTAL STALLS RATIO
 1-8 VAN ACCESSIBLE/HANDICAPPED
 4-1-93

NOTE: DETAILS ARE NOT TO SCALE

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 NATHAN J. HUETTL, P.E.
 REG. NO. 42774 DATE 1/2/07

DESIGNED
 N. HUETTL
 DRAWN
 B. FITZPATRICK
 CHECKED
 O. TODD



BOLTON & MENK, INC.
 Consulting Engineers & Surveyors
 MANKATO, MN FAIRMONT, MN SLEEPY EYE, MN WILLMAR, MN
 BURNSVILLE, MN CHASKA, MN RAMSEY, MN AMES, IA

REV.	BY	DATE

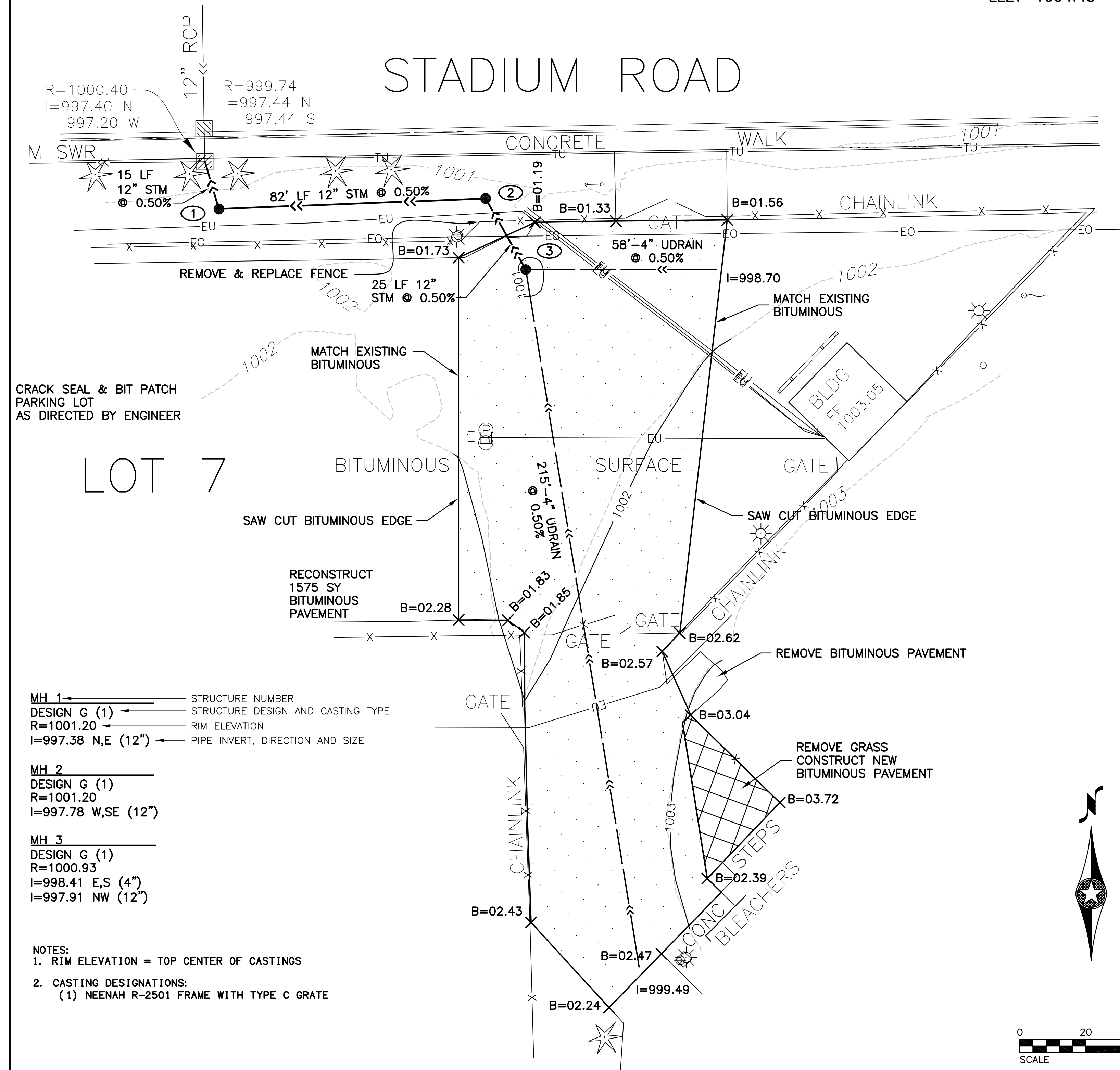
MINNESOTA STATE UNIVERSITY, MANKATO
 2007 PARKING LOT IMPROVEMENTS
 DETAILS

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BENCH MARK
DOUBLE SPIKE
IN POWER POLE
ELEV=1004.43

WEST BOLT ON
LIGHT POLE
ELEV=1004.43

BENCH MARK
TOP NUT
HYDRANT
ELEV=1001.55



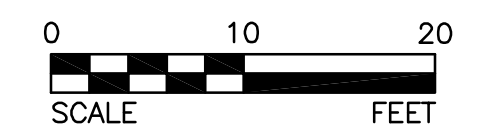
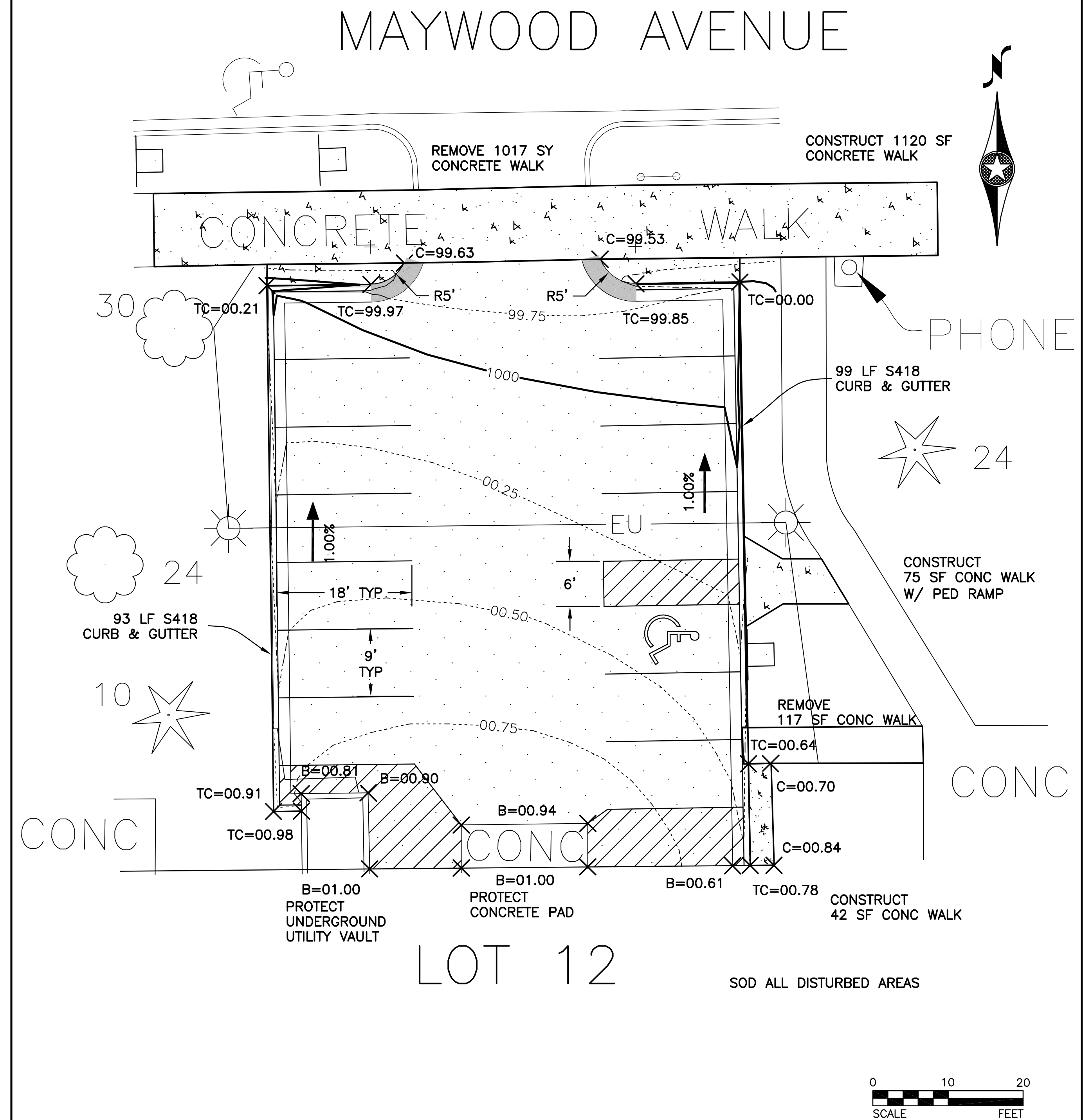
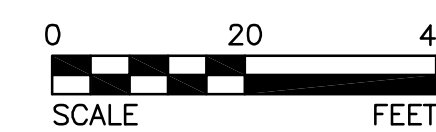
CRACK SEAL & BIT PATCH
PARKING LOT
AS DIRECTED BY ENGINEER

MH 1
DESIGN G (1)
R=1001.20
I=997.38 N,E (12")

MH 2
DESIGN G (1)
R=1001.20
I=997.78 W,S (12")

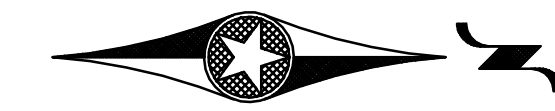
MH 3
DESIGN G (1)
R=1000.93
I=998.41 E,S (4")
I=997.91 NW (12")

NOTES:
1. RIM ELEVATION = TOP CENTER OF CASTINGS
2. CASTING DESIGNATIONS:
(1) NEENAH R-2501 FRAME WITH TYPE C GRATE

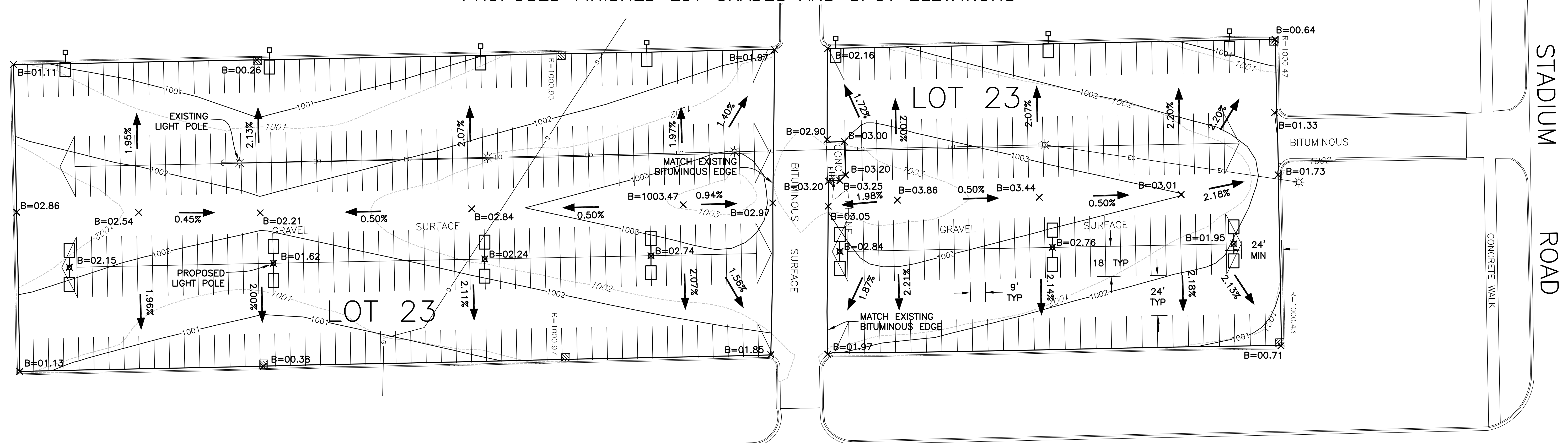


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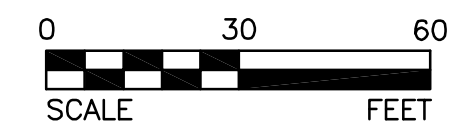
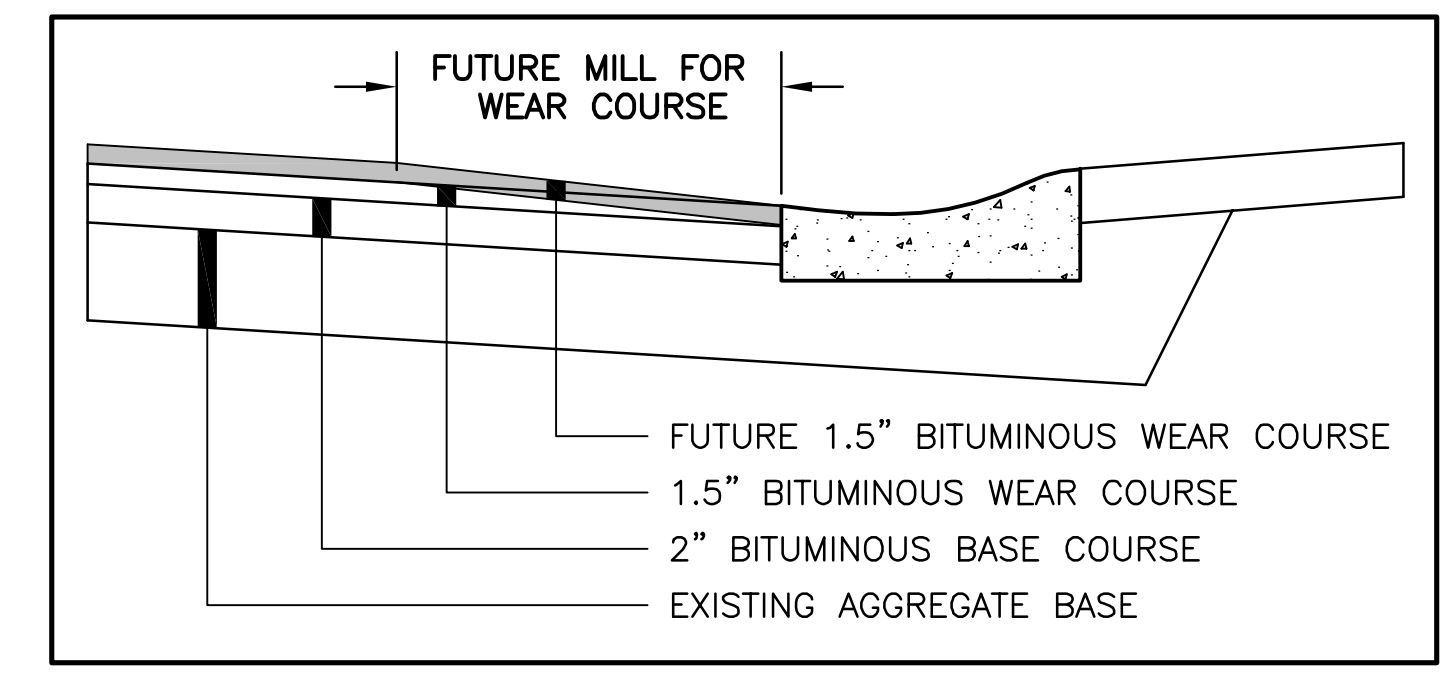
BENCH MARK
TOP NUT HYDRANT
SW CORNER AT
KWIK TRIP
ELEV=1004.75



PROPOSED FINISHED LOT GRADES AND SPOT ELEVATIONS



- NOTES:
- EXISTING LIGHT POLES TO BE REMOVED BY OTHERS.
 - PROPOSED LIGHT POLES TO BE INSTALLED BY OTHERS PRIOR TO BITUMINOUS CONSTRUCTION.
 - CLEAN OUT EXISTING CATCH BASINS.
 - CONSTRUCT BITUMINOUS PAVEMENT TO LIP OF GUTTER AND ELEVATIONS AS SHOWN.
 - SHAPE AND ADD GRAVEL AS NEEDED TO MEET PROPOSED GRADES AND SPOT ELEVATIONS.



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DESIGNED: N. HUETTL
DRAWN: N. HUETTL
CHECKED: O. TODD

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REV.	BY	DATE

MINNESOTA STATE UNIVERSITY, MANKATO
2007 PARKING LOT IMPROVEMENTS
LOT 23

SHEET
5
OF
5