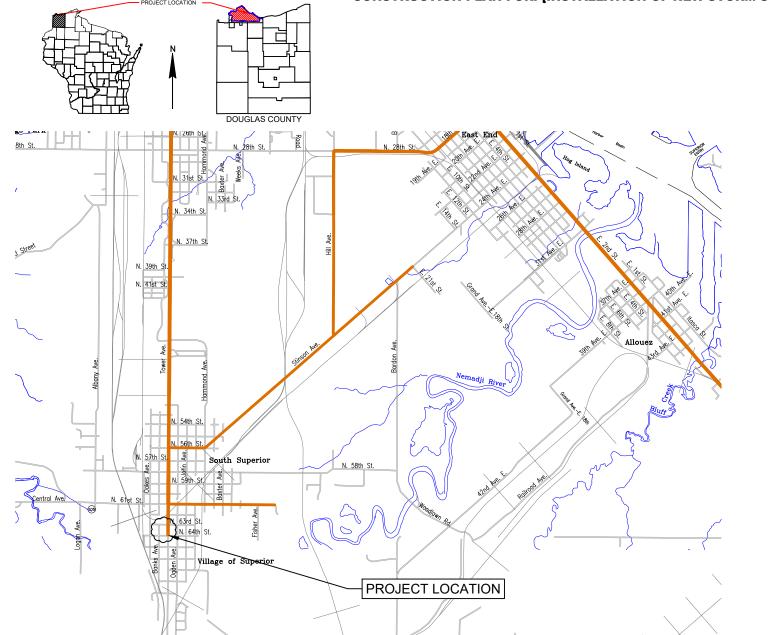
NORTH 64TH STREET STORMWATER RELIEF

NORTH 64TH STREET TO NORTH 63RD STREET AT TOWER AVENUE SUPERIOR, WI 54880

CONSTRUCTION PLAN FOR: {INSTALLATION OF NEW STORM SEWER PIPING AND STRUCTURES, ALLEY RECONSTRUCTION}



THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

FOR FIELD LOCATES CALL: 1.800.242.8511 WWW.DIGGERSHOTLINE.COM

THE STANDARD SPECIFICATIONS FOR SEWER & WATER CONSTRUCTION IN WISCONSIN, SIXTH EDITION WITH ADDENDUM NO. 1 AND NO. 2 AND WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (2019 EDITION) SHALL GOVERN THIS PROJECT

LEGEND GAS LINE UNDERGROUND ELECTRIC **OVERHEAD LINES** COMBINED SANITARY SEWER STORM SEWER WATER LINE UNDERDRAIN RIGHT OF WAY/PARCEL LINE CONSTRUCTION LIMITS -SANITARY SEWER MANHOLE STORM SEWER INLET **HYDRANT** SIGN 뮷 ELECTRIC MANHOLE LIGHT POLE WATER MAIN VALVE GAS VALVE UTILITY POLE PROPERTY MARKER PROPOSED CONCRETE 4-INCH PROPOSED CONCRETE 7-INCH **CONCRETE PAVEMENT 9-INCH** PROPOSED ASPHALT **EXISTING ASPHALT SURFACE** UNDERGROUND CONFLICT CAUTION!

SHEET INDEX

SHEET NO.	SHEET DESCRIPTION
1	TITLE
2	GENERAL NOTES
3	MINIMUM STANDARDS
4	PROJECT OVERVIEW
5	EROSION CONTROL
6	ESTIMATED QUANTITIES
7	CONTROL POINTS
8	TYPICALS/DETAILS
9	REMOVALS
10	100+00 ALLEY PLAN AND PROFILE
11	300+00 NORTH 64TH STREET
	PLAN AND PROFILE
12-18	SECTION SHEETS
N/A	STANDARD DETAIL SHEETS

DESIGN TEAM: {CARTER CARPENTER}



GENERAL NOTES:

- INSTALLATION AND MATERIALS FOR ALL SANITARY SEWER AND STORM SEWER PIPES AND STRUCTURES SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF SUPERIOR MINIMUM STANDARDS FOR GRAVITY SEWER CONSTRUCTION.
- 2. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT LIMITS THAT ARE NOT SHOWN.
- 3. CONTRACTOR WILL VERIFY ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. ANY REQUIRED RELOCATION OR ADJUSTMENT WORK SHALL BE COORDINATED BY THE CONTRACTOR.
- 4. ALL AREAS OUTSIDE OF THE PROJECT LIMITS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION AT NO COST TO THE CITY. THIS INCLUDES STAGING AREAS.
- 5. ALL STRUCTURE STATION AND OFFSET SHOWN ARE IN REFERENCE TO THE CENTER OF STRUCTURE.
- 6. ALL STORM SEWER INVERTS, ELEVATIONS, AND LENGTHS ARE COMPUTED CENTER-TO-CENTER OF THE STRUCTURES.
- 7. INLET RIM ELEVATIONS ARE COMPUTED TO THE FLOW LINE.
- ALL CONCRETE AND ASPHALT SHALL BE SAWCUT FULL DEPTH BEFORE REMOVAL WHERE ABUTTING LIKE SURFACE MATERIAL.
- CONTRACTOR SHALL COORDINATE WITH LOCAL BUSINESSES ABUTTING PROJECT SITE AND SEQUENCE CONSTRUCTION
 ACTIVITY AS TO MINIMIZE DISRUPTIONS AND ACCESS TO THESE BUSINESSES:

SUPERIOR MEATS 6301 TOWER AVENUE

KIMMES OIL AND TIRE 6327 TOWER AVENUE

ABBREVIATIONS

ASPH = ASPHALT CB = CATCH BASIN

CMP = CORRUGATED METAL PIPE

CONC = CONCRETE

CPP = CORRUGATED PLASTIC PIPE

CY = CUBIC YARD
DIA = DIAMETER
EX = EXISTING
FT = FOOT

HDPE = HIGH DENSITY POLYETHYLENE PIPE

IN = INCH INL = INLET LF = LINEAR FOOT LS = LUMP SUM LT = LEFT MH = MANHOLE PROP = PROPOSED

PVC = POLYVINYL CHLORIDE PIPE

RCP = REINFORCED CONCRETE PIPE

REQ = REQUIRED
RT = RIGHT
SAN = SANITARY
SQ = SQUARE
SS = STORM SEWER

SSPRC= STORM SEWER PIPE REINFORCED CONCRETE

SY = SQUARE YARD TYP = TYPICAL VAR = VARIES V.I.F. = VERIFY IN FIELD

YD = YARD

UTILITIES

SUPERIOR WATER LIGHT & POWER CO.

GAS AND WATER KEVIN DOUVILLE 2915 HILL AVENUE P.O. BOX 519 SUPERIOR, WI 54880 715-395-6236 218-340-9408 (C)

SUPERIOR WATER LIGHT & POWER CO.

AARON ANDERSON 2915 HILL AVENUE P.O. BOX 519 SUPERIOR, WI 54880 715-395-6227

KDOUVILLE@SWLP.COM

ASANDERSON@SWLP.COM

CENTURYLINK

ELECTRIC

RUSSELL VANCE
135 N. 21ST STREET
SUPERIOR, WI 54880
715-392-0045
715-919-8003 (C)
RUSSELL.VANCE@CENTURYLINK.COM

CITY OF SUPERIOR PUBLIC WORKS

TODD JANIGO
1316 NORTH 14TH STREET
SUPERIOR, WI 54880
715-395-7373
JANIGOT@CI.SUPERIOR.WI.US

CITY OF SUPERIOR - ENVIRONMENTAL SERVICES

DIVISION OF PUBLIC WORKS

ERIN ABRAMSON
51 EAST 1ST STREET
SUPERIOR, WI 54880
715-394-0392
ABRAMSONE@CI.SUPERIOR.WI.US

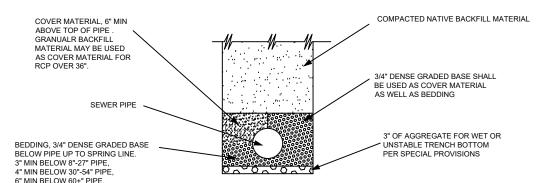
DIGGERS HOTLINE

2040 WEST WISCONSIN AVENUE SUITE 10 MILWAUKEE, WI 53233 1-800-242-8511 "CALL 3 DAYS BEFORE YOU DIG"

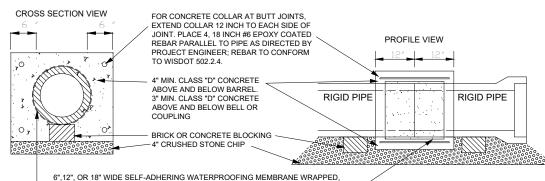
DIGGERS HOTLINEDial (800) 242-8511

www.DiggersHotline.com

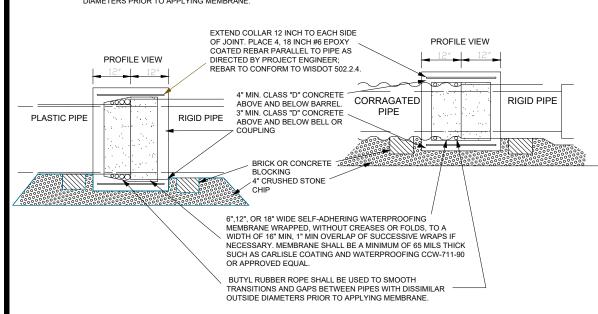
TYPICAL TRENCH BOTTOM DETAIL



CONCRETE COLLAR DETAIL 8"- 42" PIPE



WITHOUT CREASES OR FOLDS, TO A WIDTH OF 16" MIN, 1" MIN OVERLAP OF SUCCESSIVE WRAPS IF NECESSARY. MEMBRANE SHALL BE A MINIMUM OF 65 MILS THICK SUCH AS CARLISLE COATING AND WATERPROOFING CCW-711-90 OR APPROVED EQUAL, BUTYL RUBBER ROPE SHALL BE USED TO SMOOTH TRANSITIONS AND GAPS BETWEEN PIPES WITH DISSIMILAR OUTSIDE DIAMETERS PRIOR TO APPLYING MEMBRANE.



TYPE I FRAME/CHIMNEY JOINT REQUIRED ON ALL SANITARY MANHOLES UNLESS OTHERWISE SPECIFIED. ELASTOMERIC WATERPROOFING SEALER APPLIED TO

FLAT TOP SLAB MAY ONLY BE USED FOR 5'-0" AND 6'-0" DIA. MANHOLES AND WITH PERMISSION OF THE ENVIRONMENTAL SERVICES DIVISION OF PUBLIC WORKS OR WHERE SHOWN ON THE PLANS. FLAT TOP SLAB MUST HAVE A MINIMUM 6" ADJUSTING RING (1 FULL RING) INSTALLED.

ADJUST FRAME TO GRADE WITH BRICK OR CONCRETE RINGS OF VARIABLE THICKNESS MAXIMUM RING HEIGHT = 6", MINIMUM RING HEIGHT = 2" CONCRETE RINGS SHALL BE REINFORCED WITH ONE LINE OF STEEL CENTERED WITHIN THE RING. WHERE NECESSARY, RINGS SHALL BE GROOVED TO RECEIVE STEP. THE CHIMNEY SHALL BE CONSTRUCTED SO THAT AS FEW ADJUSTING RINGS AS POSSIBLE SHALL BE USED TO BRING MANHOLE TO GRADE.

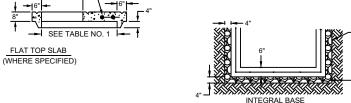
CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO DESIGNATION C-478 REQUIREMENTS OF ASTM SPECIFICATIONS.

JOINTS SHALL BE WATERTIGHT AND SHALL BE MADE USING BUTYL RUBBER GASKETS. ALL JOINTS SHALL CONFORM TO ASTM-C443 VARIATIONS IN DIAMETER, DEFECTIVE OR DAMAGED ENDS, OR OTHER CONDITIONS WHICH, IN THE OPINION OF THE PROJECT ENGINEER, PREVENT MAKING A SATISFACTORY JOINT SHALL BE CONSIDERED CAUSE

AREA OF CIRCUMFERENTIAL STEEL = 0.12 SQ INCH PER LINEAL FOOT.

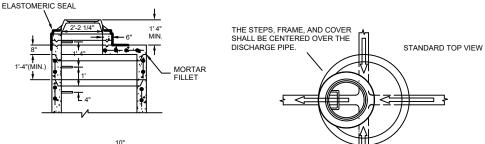
4" MIN. 3/4" DENSE GRADED BASE UNDER CONCRETE BASE.

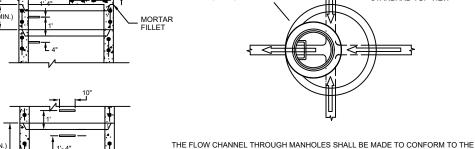
PRECAST BASE RISER SECTION WITH A SEPARATE PRECAST BASE SLAB SHALL NOT BE CONSIDERED GENERALLY ACCEPTABLE UNDER THIS SPECIFICATION.



EXTEND 3/4" DENSE GRADED BASE TO 6" ABOVE TOP OF PIPE

4" MIN. 3/4" DENSE GRADED BASE BELOW PRECAST BASE.



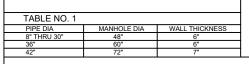


SHAPE AND SLOPE OF THE SEWERS AND SHALL EXTEND VERTICALLY FROM THE SPRINGLINE TO THE CROWN OF THE DISCHARGE PIPE. THE THROUGH MANHOLE FLOW CHANNEL SHALL BE THE SAME DIAMETER AS THE LARGER OF THE ADJOINING

BENCH SLOPE **∫** STORM MANHOLE 1 INCH PER FOOT SANITARY MANHOLE 2 INCH PER FOOT

SPACE BETWEEN PIPE AND PRECAST MANHOLE WALL TO BE FILLED WITH BRICK MORTARED IN PLACE EXCEPT THAT AN APPROVED FLEXIBLE WATERTIGHT PIPE TO MANHOLE SEAL IS REQUIRED FOR ALL SANITARY SEWER CONNECTIONS. THE ANNULAR SPACE BETWEEN THE PIPE AND MANHOLE WALL SHALL BE FILLED WITH FLEXIBLE BUTYL RUBBER GASKET MATERIAL.

CLASS "D" CONCRETE, 12" MIN. BELOW BOTTOM OF PIPE



FLASTOMERIC SEAL

16" Max

4 1/2"

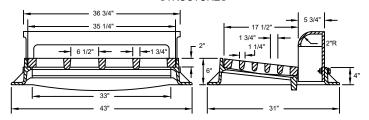
CONE-TOP SECTION

REINFORCING STEEL

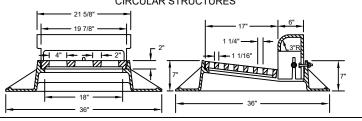
PRECAST MANHOLE

MANHOLE CASTING DIMENSIONS

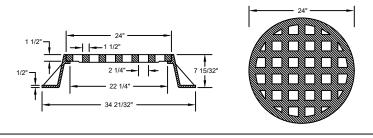
TYPICAL CURB INLET CASTING DIMENSIONS FOR RECTANGULAR **STRUCTURES**



TYPICAL CURB INLET CASTING DIMENSIONS FOR CIRCULAR STRUCTURES



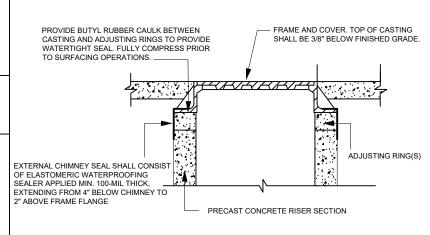
CASTING DIMENSIONS FOR GRATED MANHOLE COVERS AND CIRCULAR INLETS IN NON-CURB INSTALLATIONS



ALL MANHOLE CASTINGS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-48, CLASS NO. 30-B AND SHALL BE FREE FROM CRACKS, HOLES, SWELLS, AND COLD SHUTS.

NON-VENTED COVERS SHALL BE "SELF-SEALING". "T-SEAL" OR "GASKET SEALED" COVERS. COVERS SHALL HAVE "SANITARY" OR "STORM" LABELS AS APPLICABLE, OR OTHER LABELS APPROVED AS EQUAL

EXTERNAL CHIMNEY SEAL





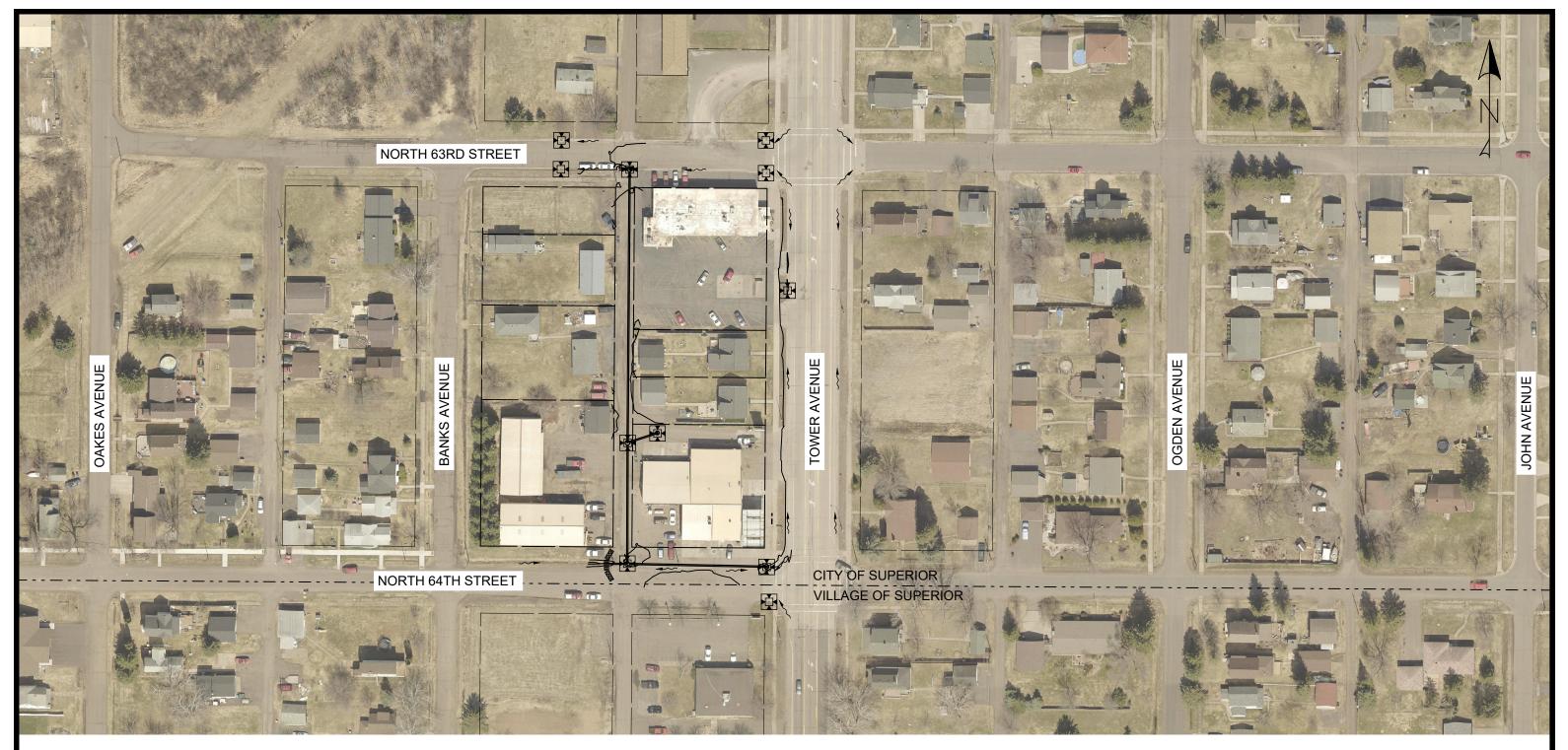
3/4" DENSE GRADED BASE



NO SCALE



----- PROJECT AREA





INLET PROTECTION - TYPE D



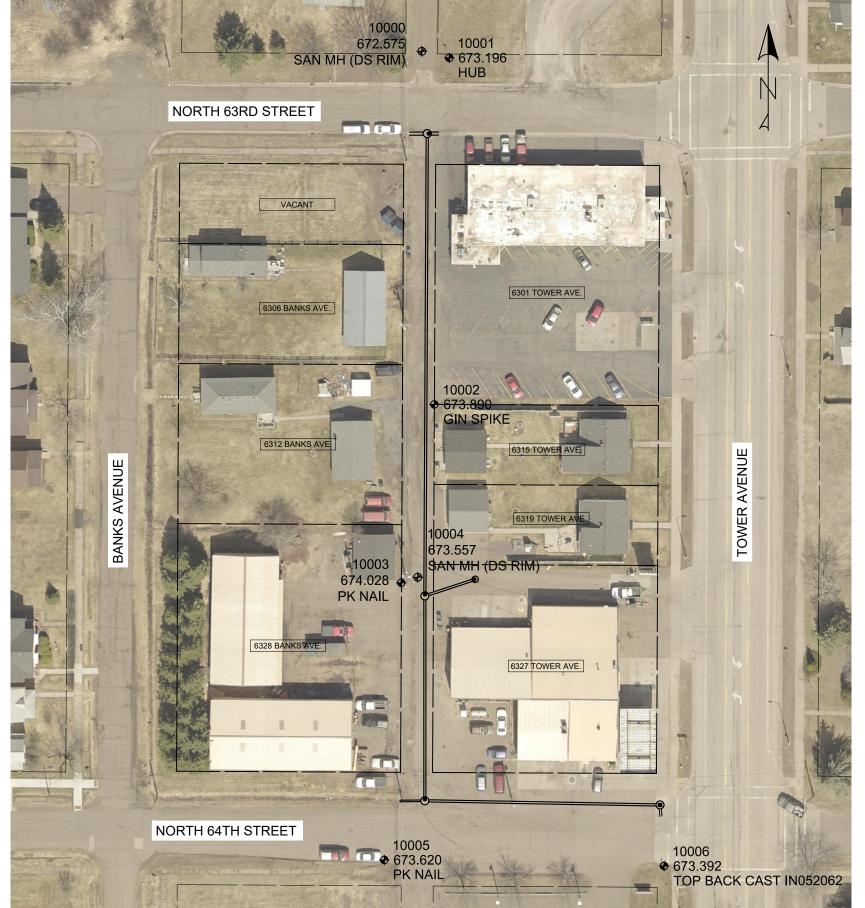
→ FLOW DIRECTION

- 1. EROSION CONTROL BMPS SHALL BE INSTALLED PRIOR TO LAND DISTURBING ACTIVITY AND IMMEDIATELY UPON INSTALLATION OF NEW INLETS OR CATCH BASINS.
- 2. CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL BMPS. WHEN SEDIMENT ACCUMULATES TO WITHIN SIX INCHES OF THE BOTTOM OF THE OVERFLOW HOLES, CONTRACTOR SHALL REMOVE ALL SEDIMENT.
- 3. CONTRACTOR SHALL PREVENT TRACKING OF SEDIMENT OFF SITE. CONTRACTOR SHALL REMOVE TRACKED OUT SEDIMENT FROM ROADS AND PAVED AREAS UPON DISCOVERY.
- 4. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE IMPLEMENTATION, MAINTENANCE, AND INSPECTIONS OF ALL EROSION CONTROL BMPS.
- 5. INSTALL BMPS AS SPECIFIED IN THE WDNR TECHNICAL STANDARDS (T.S) FOUND AT: HTTPS://DNR.WI.GOV/TOPIC/STORMWATER/STANDARDS/CONST_STANDARDS.HTML INLET PROTECTION T.S. 1060 DITCH CHECK T.S. 1062
- 6. LAND DISTURBING PERMIT MAY BE OBTAINED AT CITY OF SUPERIOR BUILDING INSPECTION AT 1316 N. 14TH STREET - 2ND FLOOR, SUITE 200, SUPERIOR, WI 54880. OR AT WWW.CI.SUPERIOR.WI.US

STATEMENT OF ESTIMATED QUANTITIES							
NOTE	BID ITEM	DESCRIPTION		UNIT	ESTIMATED QUANTITY		
5	204.0100	REMOVING PAVEMENT		SY	53		
	204.0150	REMOVING CURB & GUTTER		LF	30		
9	204.0155	REMOVING CONCRETE SIDEWALK		SY	25		
	204.0215	REMOVING CATCH BASINS		EACH	4		
	204.0245.S	REMOVING STORM SEWER (8-INCH TO 12-INCH)		LF	119		
	204.0280	SEALING PIPES		EACH	3		
1	205.0100	EXCAVATION COMMON	(P)	CY	725		
	305.0125	BASE AGGREGATE DENSE 1 1/4 INCH	(P)	CY	226		
	312.0115	SELECT CRUSHED MATERIAL	(P)	CY	388		
	415.0090	CONCRETE PAVEMENT 9-INCH		SY	29		
	416.0610	DRILLED TIE BARS		EACH	23		
3,4	465.0105	ASPHALTIC SURFACE		TON	239		
10	601.0409	CONCRETE CURB & GUTTER 30-INCH TYPE A		LF	53		
10	602.0405	CONCRETE SIDEWALK 4-INCH		SF	136		
10	602.0420	CONCRETE SIDEWALK 7-INCH		SF	62		
	602.0515	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA		SF	8		
	608.0412	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH		LF	32		
	608.0415	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH		LF	417		
	611.0609	INLET COVERS TYPE B-A		EACH	2		
7	611.3003	INLETS 3-FT DIAMETER		EACH	1		
7	611.3004	INLETS 4-FT DIAMETER		EACH	3		
7	611.3220	INLETS 2X2-FT		EACH	1		
2	612.0106	PIPE UNDERDRAIN 6-INCH		LF	452		
	619.1000	MOBILIZATION		EACH	1		
	628.7020	INLET PROTECTION TYPE D		EACH	11		
	628.7504	TEMPORARY DITCH CHECKS		LF	10		
6	643.5000	TRAFFIC CONTROL (PROJECT)		EACH	1		
	645.0140	GEOTEXTILE TYPE SAS		SY	844		
	690.0150	SAWING ASPHALT		LF	900		
	690.0250	SAWING CONCRETE		LF	96		
	SPV.0060.01	ADJUSTING SANITARY MANHOLE COVERS		EACH	2		
11	SPV.0060.02	STORM SEWER CASTING CIRCULAR GRATED		EACH	3		
	SPV.0090.01	STORM SEWER PIPE PVC 8-INCH		LF	16		
8,12	SPV.0090.02	STORM SEWER PIPE 12-INCH PVC DR-25 OR STORM SEWER PIPE 12-INCH (DIPS) HDPE DR-11		LF	147		
	SPV.0090.03	SEWER FIELD QUALITY CONTROL-TELEVISING		LF	596		
	SPV.0165.01	CONSTRUCTION STAKING STORM SEWER		LS	1		

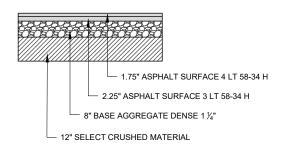
NOTES				
1	IN PLACE VOLUME. INCLUDES REMOVAL OF ASPHALT SURFACE			
2	PAYMENT INCLUDES BASE AGGREGATE OPEN GRADED AND GEOTEXTILE FABRIC TYPE DF			
3	CALCULATED AT 120LBS/SY/INCH DEPTH			
4	PAYMENT INCLUDES TACK COAT			
5	INCLUDES CONCRETE ALLEY ENTRANCE WITH CURB & GUTTER AT NORTH 63RD STREET			
6	CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLAN TO THE CITY FOR APPROVAL			
7	STRUCTURES SHALL HAVE NO SUMP			
8	ONLY ONE PIPE SELECTION WILL BE AWARDED			
9	SAWING CONCRETE INCIDENTAL			
10	EXCAVATION AND BASE AGGREGATE INCIDENTAL			
11	REFER TO MINIMUM STANDARDS SHEET (3): CASTING DIMENSIONS FOR GRATED MANHOLE COVERS			
12	FIELD QUALITY CONTROL AIR TEST AND DEFLECTION TEST REQUIRED (INCIDENTAL TO ITEM SPV.0090.02)			
	(P) INDICATES PLAN QUANTITY			

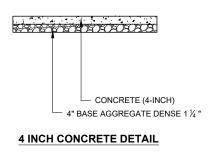


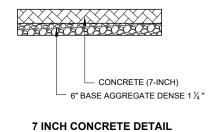


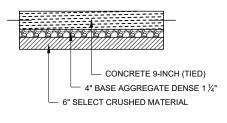
CONTROL POINTS								
POINT	DESCRIPTION	ELEVATION	NORTHING	EASTING				
10000	SAN MH (DS RIM)	672.575	284595.8590	146673.3940				
10001	HUB	673.196	284591.7380	146690.5550				
10002	GIN SPIKE	673.890	284375.1460	146680.7040				
10003	PK NAIL	674.028	284263.7370	146659.6970				
10004	SAN MH (DS RIM)	673.557	284267.1810	146670.0500				
10005	PK NAIL	673.620	284090.5720	146648.7360				
10006	TOP BACK CAST IN052062	673.392	284086.3350	146823.5950				

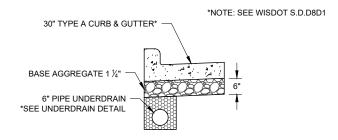








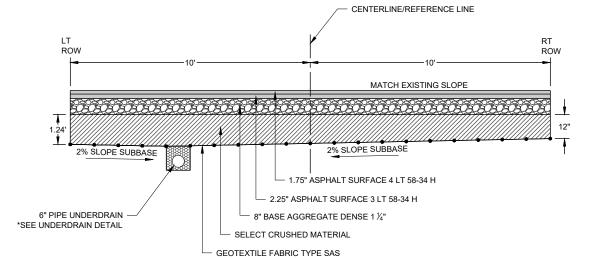


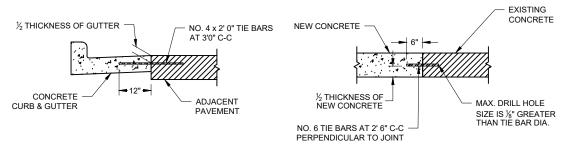


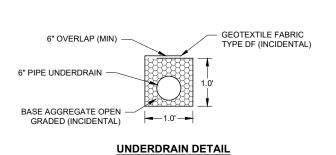
CURB & GUTTER 30 INCH AND DETAIL

TOWER AVENUE PAVEMENT PATCH DETAIL

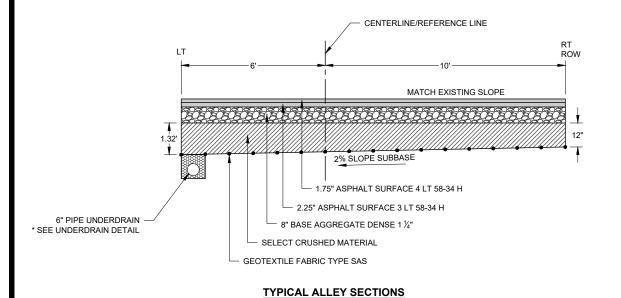
NORTH 64TH STREET DETAIL

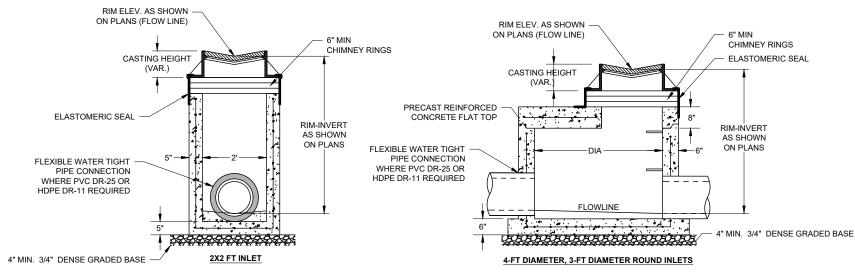






TIE BAR DETAILS





RIENFORCED PRECAST CONCRETE STRUCTURES



