ADDENDUM

		Addendum No. 1
Owner:	City of Owosso	
Project:	2024 Street Light Project	
Engineer:	City of Owosso	
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NOTICE TO ALL PROSPECTIVE BIDDERS

BIDS DUE: March 12, 2024 at 3pm

This Addendum is a part of the Contract Documents and modifies the previously issued Bidding Documents. Acknowledge receipt of this Addendum in the space provided on the "Signature Page and Legal Status" section of the Bid Proposal. Failure to do so may result in rejection of the Bid.

ITEM NO. 1:

Add 2024 Street Light Project Plans to the Contract Documents.

END OF ITEM NO. 1

END OF ADDENDUM NO. 1

UTILITY CONTACTS

THE EXISTING UTILITIES LISTED BELOW AND SHOWN ON THE PLANS REPRESENT THE BEST INFORMATION AVAILABLE AT THE TOME OF PREPARING THESES PANS. THIS INFORMATION DOES NOT RELIEVE THE CONTRACTOR OF THE REASONABILITY TO BE SATISFIED AS TO ITS ACCURACY AND LOCATION OF EXISTING UTILITIES.

CHARTER COMMUNICATIONS ATT: MARK KELLY 1480 S. VALLEY CENTER DRIVE

BAY CITY, MI 48706

CABLE TV PHONE: 989-233-9404 mark.kelly@chartercom.com

SANITARY SEWER & WATER MAIN

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CITY OF OWOSSO ATT: CLAYTON WEHNER, P.E. 301 W. MAIN STREET OWOSSO, MI 48867

ROAD 989-725-0551 clayton.wehner@ci.owosso.mi.us

ELECTRIC

OFFICE: 989-729-3250 CELL: 517-204-9018

OFFICE: 517-374-2375

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CELL: 517-614-8570

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CITY OF OWOSSO ATT: RYAN SUCHANEK 301 W. MAIN STREET OWOSSO, MI 48867

CONSUMERS ENERGY ATT: TRACY MAHAR 1801 W. MAIN ST OWOSSO, MI 48867

CONSUMERS ENERGY ATT: ADAM BERTRAM 530 W. WILLOW STREET P.O. BOX 30162 LANSING, MI 48909

DAYSTARR COMMUNICATIONS ATT: JARED JACKSON 307 N. BALL STREET OWOSSO, MI 48867

FRONTIER COMMUNICATIONS ATT: HAROLD ROTH 1943 W. M-21 OWOSSO, MI 48847

SHIAWASSEE COUNTY HEALTH DEPARTMENT ENVIRONMENTAL HEALTH DIVISION ATT: STEVE ALWORDEN 201 N. SHIAWASSEE STREET

CORUNNA, MI 48817

SOIL EROSION AND SEDIMENTATION CONTROL PHONE: 989-743-2289 FAX: 989-743-2413 salworden@shiawasseechd.net

CALL MISS DIG AT 1-800-482-7171 OR 811 THREE DAYS, EXCLUDING SATURDAY, SUNDAY, AND HOLIDAY, BEFORE STARTING YOUR

MDOT ROAD STANDARD PLANS

WHERE THE FOLLOWING ITEMS ARE CALLED FOR ON PLANS, THEY ARE TO BE CONSTRUCTED ACCORDING TO THE MDOT STANDARD PLAN GIVEN BELOW OPPOSITE EACH ITEM UNLESS OTHERWISE INDICATED.

DRAINAGE STRUCTURES	R-1-G*
COVER B	R-7-F
MONUMENT BOXES	R-11-E
COVER K	R-15-F
COVER Q	R-18-F
SIDEWALK RAMP AND DETECTABLE WARNING DETAILS	R-28-J*
DRIVEWAY OPENINGS & APPROACHES AND CONCRETE SIDEWALKS	R-29-I
CONCRETE CURB AND CONCRETE CURB AND GUTTER*	R-30-G
BUMPER & PARKING RAIL AND MISC. WOOD POSTS	R-74-D
GRANULAR BLANKET, UNDERDRAINS, AND OUTLET ENDINGS FOR SEWER UNDERDRAINS, AND SEWER BULKHEADS	R-80-E
BEDDING AND FILLING AROUND PIPE CULVERTS	R-82-D
UTILITY TRENCHES	R-83-C
SOIL EROSION & SEDIMENT CONTROL MEASURES	R-96-E
SEEDING AND TREE PLANTING	R-100-H

*SPECIAL DETAILS INCLUDED IN PROPOSAL OR MODIFIED IN GENERAL PLANS

Know what's below.

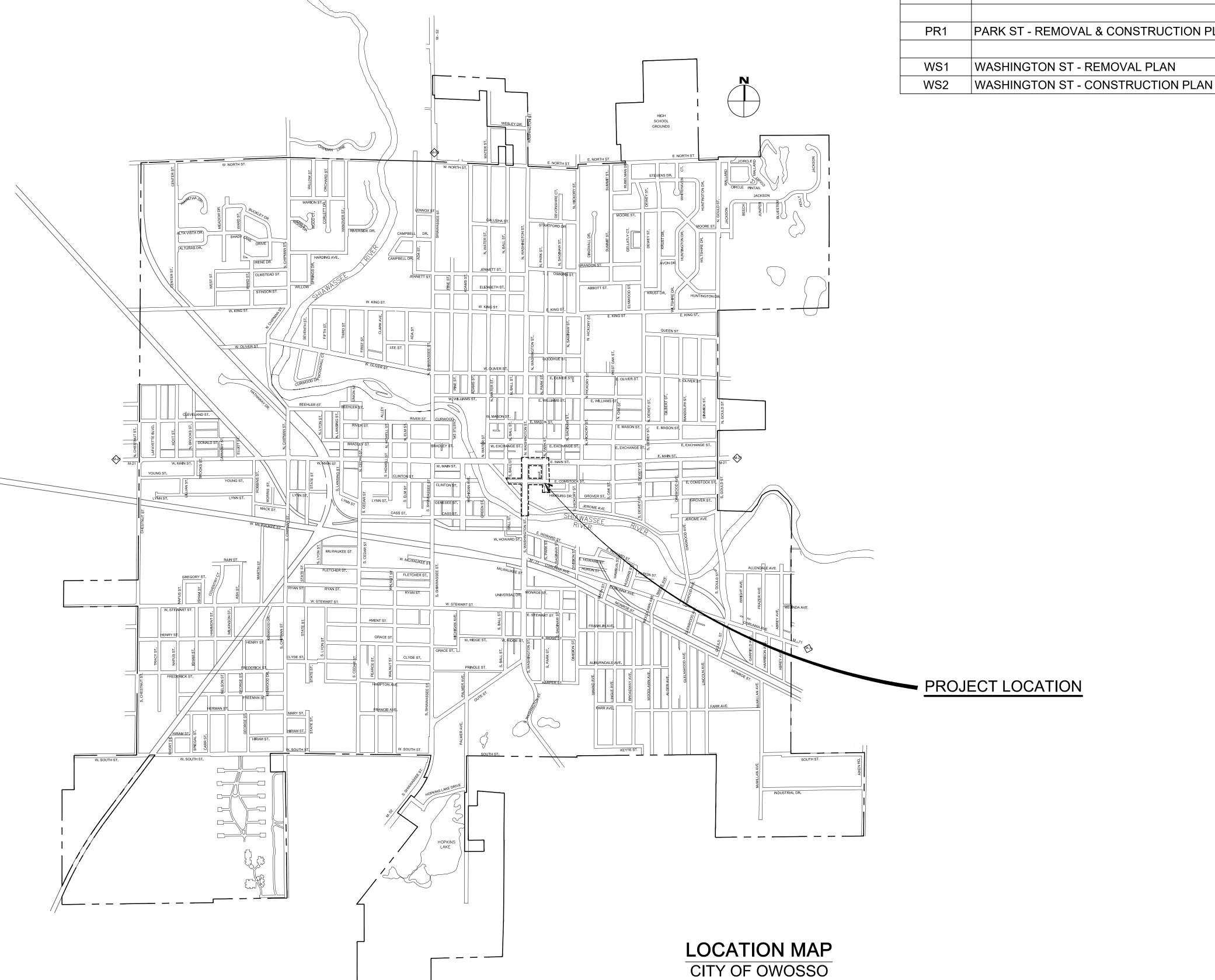
Call before you dig.

CITY OF OWOSSO

2024 STREET LIGHT PROJECT

SHIAWASSEE COUNTY

SECTION 24, T7N-R2E, CITY OF OWOSSO POP: 15,194 (2010 CENSUS)



SHEET NO.	DESCRIPTION
CS	COVER SHEET
D1	LEGEND, MISCELLANEOUS ESTIMATES, & SESC KEY
D2	ELECTRIC STANDARD DETAILS
D3	STREET & SIDEWALK ITEMS GENERAL NOTES AND DETAILS
TR1 - TR2	MAINTAINING TRAFFIC PLAN
CM1	COMSTOCK ST - REMOVAL & CONSTRUCTION PLAN
MN1	MAIN ST - REMOVAL & CONSTRUCTION PLAN
PR1	PARK ST - REMOVAL & CONSTRUCTION PLAN
WS1	WASHINGTON ST - REMOVAL PLAN
WS2	WASHINGTON ST - CONSTRUCTION PLAN

	BENCH MARK DATA	RK DATA	NO.	REVISIONS	DATE	ВУ
	ELEV.	DESCRIPTION	_	IFB PLANS	2/19/24	CW
FIELD BOOK				ORIGINAL PLAN		
PG.			CHE	CHECKED BY	APPROVED BY	

	EXI	ISTING	FEATURES LE	GEND	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	TREE (DECIDUOUS)	C	CABLE BOX		SURVEY CONTROL POINT
	BUSH	Ŧ	TELEPHONE RISER	BM#1	BENCHMARK
	TREE (CONIFEROUS)	\bigcirc	TELEPHONE MANHOLE	•	SECTION CORNER
X	DEAD TREE	THH	TELEPHONE HANDHOLE		BOUNDARY LINE
©	STUMP	E	ELECTRICAL RISER		PROPERTY LINE
\circ	MANHOLE	(E)	ELECTRICAL MANHOLE		WATERMAIN SANITARY SEWER
0	SANITARY CLEANOUT	EHH	ELECTRICAL HANDHOLE		STORM SEWER
#	RD. CATCH BASIN	-•	POWER POLE		CULVERT (21" AND UNDER)
\boxplus	SQ. CATCH BASIN	×	LIGHT POLE	==	CULVERT (24" AND UP)
-Ò-	FIRE HYDRANT	0	GUY POLE		CABLE T.V.
\bowtie	WATER VALVE)	GUY ANCHOR		TELEPHONE _ T T T
\otimes	CURB STOP & BOX	\$ -	PED CROSSING SIGNAL	—— Е	ELECTRIC E E E
®	WELL	×	YARD LIGHT		OVERHEAD LINES OH
w	WATER MANHOLE	ф	SIGN	— o—	GUARDRAIL
M	WATER METER	·	MAILBOX		x_FENCExx
● B#	SOIL BORING	⊙	GUARD POST	w	WOODLINE
	MONITORING WELL	•	FOUND CONC. MONUMENT		
		•	FOUND IRON ROD		
		0	SET IRON ROD		L ITEMS LISTED ON THE LEGEND MAY RESENT ON DRAWING.

MISCELLANEOUS ESTIMATES

THE FOLLOWING ITEMS OF WORK SHALL BE DONE AS THEY APPLY THROUGHOUT THE PROJECT. THESE ITEMS ARE NOT DETAILED OR INCLUDED ON THE PLAN AND PROFILE SHEETS

Quantity	Unit	Pay Item
1	LSUM	Mobilization, Max \$45,400
70	Ft	Curb and Gutter, Rem
50	Syd	Pavt, Rem, Modified
24	Syd	Sidewalk, Rem, Modified
3	Cyd	Subbase, CIP
50	Syd	Aggregate Base, 8 inch, Modified
25	Ton	Hand Patching
40	Ft	Curb and Gutter, Conc, Det F4
20	Ft	Detectable Warning Surface, Modifie
30	Ft	Curb Ramp Opening, Conc
100	Sft	Curb Ramp, Conc, 4 inch
100	Sft	Curb Ramp, Conc, 7 inch
5	Ea	Sign, Type III, Rem
5	Ea	Sign, Type III, Erect, Salv
50	Ft	Post, Steel, 3 pound
50	Ton	Maintenance Gravel

MAINTAINING TRAFFIC QUANTITIES

Quantity	Unit	Pay Item
18	Ea	Barricade, Type III, High Intensity, Double Sided, Furn & Oper
1500	Ft	Pedestrian, Type II Channelizer, Temp
1	Ea	Lighted Arrow, Type C, Furn & Oper
1	LSUM	Minor Traffic Devices, Max \$10,000
100	Ea	Plastic Drum, High Intensity, Furn & Oper
140	Sft	Sign, Type B, Temp, Prismatic, Furn & Op

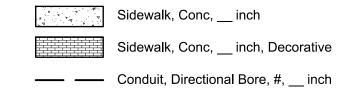
REMOVAL LEGEND

Pavt, Rem

Sidewalk, Rem, Modified

STANDARD SOIL EROSION KEY

CONSTRUCTION LEGEND



- ➤ Proposed Street Light
- Proposed Handhole
- # STANDARD SOIL EROSION KEY

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

KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
EROS	SION CONTROLS		
E1	SELECTIVE GRADING AND SHAPING		To reduce steep slopes and erosive velocities.
E2	GRUBBING OMITTED		For use on steep slopes to prevent rilling, gullying, and reduce sheet flow velocity or where clear vision corridors are necessary.
E3	SLOPE ROUGHENING AND SCARIFICATION		Where created grades cause increased erosive velocites. Promotes infiltration and reduces runoff velocity.
E4	TERRACES		On relatively long slopes up to 8% grades with fairly stable soils.
E5	DUST CONTROL		For use on construction sites, unpaved roads, etc. to reduce dust and sedimentation from wind and construction activities
E6	MULCH		For use in areas subject to erosive surface flows or severe wind or on newly seeded areas.
E7	TEMPORARY SEEDING	What I was to see the second s	Stabilization method utilized on construction sites where earth change has been initiated but not completed within a 2 week period.
E8	PERMANENT SEEDING	and the subspection when the subspection is the subspection of the sub	Stabilization method utilized on sites where earth change has been completed (final grading attained).
E9	MULCH BLANKETS		On exposed slopes, newly seeded areas, new dit bottoms, or areas subject to erosion.
E10	SODDING		On areas and slopes where immediate stabilization is requir
E11	VEGETATED CHANNELS	Maria sundred to the day diverse	For use in created stormwater channels. Vegetation is used to slow water velocity and reduce erosion within the channe
E12	RIPRAP		Use along shorelines, waterways, or where concentrated flow occur. Slows velocity, reduces sediment load, and reduces erosion.
E13	GABION WALLS		On newly created or denuded stream banks to reduce veloci until permanent stabilization is achieved or on existing bank to retard erosive velocities.
E14	ENERGY DISSIPATOR		Where the energy transmitted from a concentrated flow of surface runoff is sufficient to erode receiving area or watercourse.
E15	TEMPORARY SLOPE DRAIN		Where surface runoff temporarily accumulates or sheet flows over the top of a slope and must be conveyed down a slope in order to prevent erosion.
E16	SLOPE DRAIN		Where concentrated flow of surface runoff must be permanently conveyed down a slope in order to prevent erosion.

B = BIOENGINEERING

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

E17			
	CELLULAR CONFINEMENT SYSTEMS		Used on steep slopes and high velocity channels.
E18	PLASTIC SHEETS		Used on exposed slopes, seeded areas, new ditch bottoms, and areas subject to surface runoff and erosion. Used as a liner in temporary channels and to stabilize stockpiles.
E19	TEMPORARY DRAINAGEWAY/ STREAM CROSSING		Use on construction sites where stream/drainageway crossings are required.
E20	TEMPORARY BYPASS CHANNEL		Use within existing stream corridors when existing flow cannot be interrupted, and at culvert and bridge repair sites
E21	LIVE STAKING	B 7	In areas requiring protection of slopes against surface erosion and shallow mass wasting.
	EROSION / SEDIME CONTROLS	NT	
ES31	CHECK DAM		Used to reduce surface flow velocities within constructed and existing flow corridors.
ES32	STONE FILTER BERM		Use primarily in areas where sheet or rill flow occurs and to accommodate dewatering flow.
ES33	FILTER ROLLS	В	In areas requiring immediate protection of slopes against surface erosion and gully formation and for perimeter sediment control.
ES34	SAND FENCE		For use in areas susceptible to wind erosion, especially where the ground has not yet been stabilized by other means.
ES35	DEWATERING		Use where construction activities are limited by the presence of water and dry work is required.
ES36	DIVERSION DIKE/BERM		Within existing flow corridors to address or prevent erosion and sedimentation, or on disturbed or unstable slopes subject to erosive surface water velocities.
ES37	DIVERSION DITCH	Marchalachar Marchar Marchard Marchar Marchar Marchar Marchar Marchar Marchar Marchar Marchard Marchar Marchard	In conjunction with a diversion dike, or where diversion of upslope runoff is necessary to prevent damage to unstabilized or disturbed construction areas.
ES38	COFFERDAM/SHEET PILINGS		Constructed along or within water corridor or waterbody to provide dry construction area.
ES39	STREAMBANK BIOSTABILIZATION	В	For use along banks where stream and riparian zones may have difficulty recovering from the long—term effects of erosion.
ES40	POLYMERS		To minimize soil erosion and reduce sedimentation in water bodies by increasing soil particle size.
ES41	WATTLES	В	In areas requiring protection of slopes against surface erosion and gully formation.

B = BIOENGINEERING

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

KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
S	EDIMENT CONTROLS		
S51	SILT FENCE		Use adjacent to critical areas, to prevent sediment laden shee flow from entering these areas.
S52	CATCH BASIN SEDIMENT GUARD		Use in or at stormwater inlets, especially at construction sites
S53	STABILIZED CONSTRUCTION ACCESS		Used at every point where construction traffic enters or leaves a construction site.
S54	TIRE WASH		For use on construction sites where vehicular traffic requires sediment removed from its tires in highly erosive areas.
S55	SEDIMENT BASIN		At the outlet of disturbed areas and at the location of a permanent detention basin.
S56	SEDIMENT TRAP		In small drainage areas, along construction site perimeters, and above check dams or drain inlets.
S57	VEGETATED BUFFER/FILTER STRIP		Use along shorelines, waterways, or other sensitive areas. Slows velocity, reduces sediment load, and reduces erosion in areas of sheet flow.
S58	INLET PROTECTION FABRIC DROP		Use at stormwater inlets, especially at construction sites.
S59	INLET PROTECTION FABRIC FENCE		Use at stormwater inlets, especially at construction sites.
S60	INLET PROTECTION STONE		Use around urban stormwater inlets.
S61	TURBIDITY CURTAIN		Use during construction adjacent to a water esource, to contain sediment within the work area when other BMP's cannot be used.

B = BIOENGINEERING

SOIL ER							ΓROL					
	OPER	RATIO	N TIN	1E SC	HED	ULE						
CONSTRUCTION SEQUENCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	NOV	DEC
STRIP AND STOCKPILE TOPSOIL								N/A				
ROUGH GRADE/ SEDIMENT CONTROL								N/A				
TEMP CONTROL MEASURES												
STORM FACILITIES								N/A				
TEMP CONSTRUCTION ROADS								N/A				
FOUNDATION/ BLDG. CONSTRUCTION								N/A				
SITE CONSTRUCTION												
PERM CONTROL MEASURES												
FINISH GRADING												
LANDSCAPING								N/A				

CONSTRUCTION SEQUENCE

INSTALLATION OF TEMPORARY EROSION CONTROL MEASURES.
 EXCAVATION, CONDUIT AND LIGHT INSTALLATION.
 PERMANENT MEASURES (CONCRETE).

HT BBO IECT	BENCH MARK DATA	NO. REVISIONS	DATE	ВУ	
	ELEV. DESCRIPTION	1 IFB PLANS	2/19/24	CW	
IIMAIES & SESC KEY					
ARY, 2023 FIELD BOOK		ORIGINAL PLAN			
ECT NO. PG.		CHECKED BY APPROVED BY	/ED BY		

CITY OF OWOSSO, MICHIGAN ENGINEERING DIVISION DEPT. OF PUBLIC SERVICE

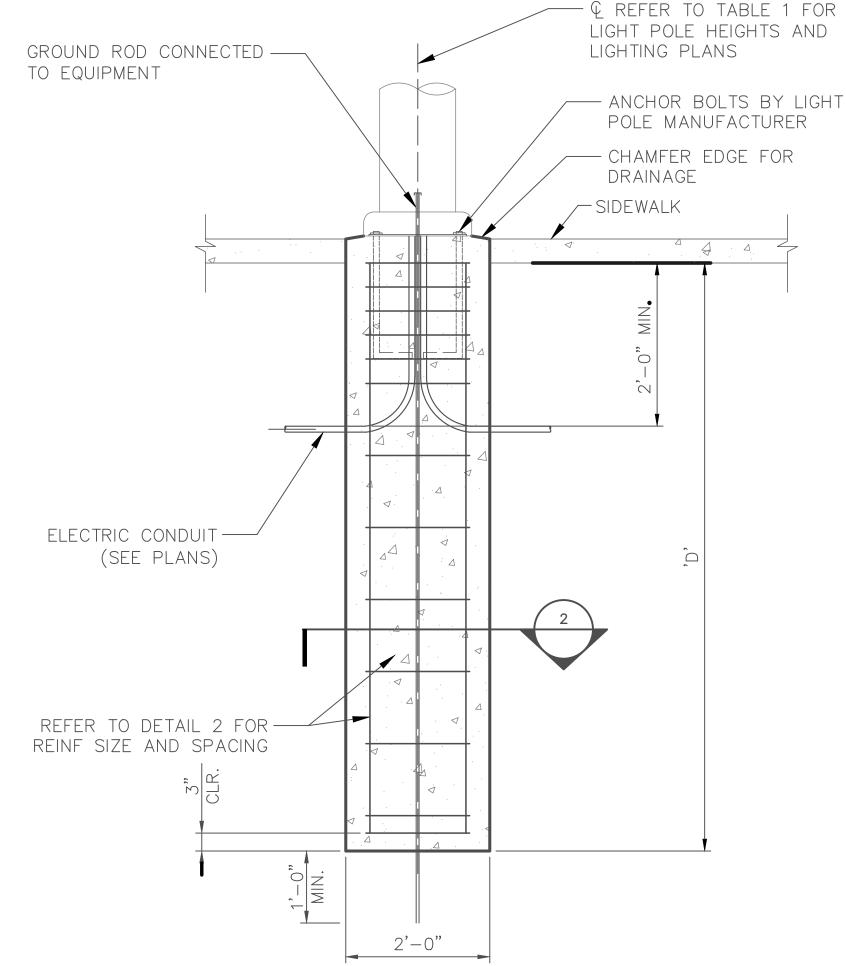
- 1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR JOB SAFETY AND CONSTRUCTION PROCEDURES.
- 2. SEE CONSTRUCTION SHEETS FOR THE LOCATION OF STRUCTURAL ELEMENTS, LIGHT POLE TYPE LOCATIONS, SIDE FEATURES, UNDERGROUND UTILITIES, AND SITE WORK LOCATIONS. VERIFY LOCATIONS FOR ALL UNDERGROUND UTILITIES BEFORE PROCEEDING WITH FOUNDATION EXCAVATION.
- CONTRACTOR MUST PROVIDE CONTINUOUS CONTROL OF SURFACE AND UNDERGROUND WATER AS REQUIRED DURING CONSTRUCTION SUCH THAT THE WORK IS DONE IN THE DRY.
- 4. IT MUST BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT EXISTING FACILITIES, STRUCTURES, AND UTILITY LINES FROM ALL DAMAGE THROUGHOUT THE DURATION OF THE PROJECT. CONTRACTOR MUST PROTECT THE WORK, ADJACENT PROPERTY, AND THE PUBLIC. EXTREME CARE MUST BE TAKEN NEAR UNDERGROUND
- CONTRACTOR MUST FIELD VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK AND REPORT DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
- 6. NOTIFY THE ENGINEERING IMMEDIATELY OF ANY EXISTING FOUNDATION CONDITIONS OR DETAILS THAT ARE IN CONFLICT WITH THOSE SHOWN IN THE DRAWINGS.
- REFER TO THE ENGINEER FOR INSTRUCTION FOR ANY DIMENSION NOT GIVEN ON DRAWINGS. SCALING OF DRAWINGS MUST NOT BE USED TO OBTAIN OR VERIFY ANY DIMENSION SHOWN ON THE DRAWINGS.

FOUNDATIONS

- A GEOTECHNICAL EXPLORATION WAS COMPLETED BY SME AND RECOMMENDATIONS ARE CONTAINED IN THEIR REPORT PROJECT NO 09139800 DATED JANUARY 16, 2023. THE REPORT PROVIDED THE FOLLOWING PROPERTIES OF THE IN-PLACE SOILS:
 - VERTICAL FOUNDATION PRESSURE = 1.500 PSF DESIGN LATERAL SOIL LOAD = 120 PCF ASSUMED IN-SITU SOIL DENSITY COHESION = 1,000 PCF
- CONTRACTOR MUST ENGAGE GEOTECHNICAL TESTING LABORATORY TO CONFIRM SOIL PREPARATION AND SPECIFY PROCEDURES AND SPECIFY COMPACTION REQUIREMENTS NECESSARY TO OBTAIN THE DESIGN SOIL PROPERTIES. IT MUST BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTRACT ENGINEER OF RECORD IF ASSUMED SOIL PROPERTIES CANNOT BE OBTAINED ON SITE.
- FOUNDATION MUST BE EXCAVATED IN UNDISTURBED OR PROPERLY COMPACTED FILL,
- 4. SONOTUBE TYPE FORMS SHALL BE USED FOR THE FOUNDATIONS. IF WET CONDITIONS ARE ENCOUNTERED, METAL OR PLASTIC CASINGS SHALL BE USED.
- WHERE LOOSE/WET SANDS ARE ENCOUNTERED, UNDERCUT THE GRANULAR SOIL BY NO MORE THAN 2 FEET AND BACKFILL WITH MDOT 6AA AGGREGATE TO THE DESIGN BEARING ELEVATION.

CAST-IN-PLACE CONCRETE

- READY-MIX CONCRETE WORK MUST CONFORM TO ASTM C94.
- 2. STRUCTURAL CONCRETE MATERIALS MUST CONFORM TO THE FOLLOWING: a. TYPE II PORTLAND CEMENT - ASTM C150 b. AGGREGATES (3/4" MAX) - ASTM c33 c. AIR ENTRAINING (4.5% MIN - 7% MAX) - ASTM C260 d. WATER REDUCING - ASTM C494 e. FLY ASH (MAX 25% BY WEIGHT), TYPE F - ASTM C618
- f. WATER CLEAN AND POTABLE g. REINFORCING STEEL - ASTM A615 GRADE 60 h. GROUT SHALL BE NON-SHRINK, NON-METALLIC
- STRUCTURAL CONCRETE MUST CONFORM TO THE FOLLOWING: a. CONCRETE MIXES AND EXPOSURE CLASS ACCORDING TO ACI 318: 1. FOUNDATIONS 5,000 PSI CLASS F3 b. MAXIMUM WATER-TO-CEMENT RATIO: 0.4
- c. USE OF CALCIUM CHLORIDE IS NOT PERMITTED
- 4. REQUIRED SLUMP 4" (BEFORE ADDITION OF SUPERPLASTICIZER)
- 5. ALL CONCRETE MATERIALS, PLACING, AND HANDLING MUST BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 318 AND ACI 301, CONCRETE WORK MUST CONFORM TO THE CURRENT VERSION OF ACI 318,
- a. MIX DESIGN FOR EACH TYPE OF CONCRETE SPECIFIED MUST BE SUBMITTED FOR APPROVAL b. PRODUCT DATA AND MATERIAL CERTIFICATES.
- 7. CONCRETE MUST BE PLACED WITHIN 90 MINUTES OF BATCH TIME.
- 8. ALL CONCRETE MUST BE CONSOLIDATED IN PLACE USING INTERNAL VIBRATORS.
- 9. CAST-IN-PLACE CONCRETE MUST BE CONTINUOUSLY CURED FOR 7 DAYS FOLLOWING INITIAL SET.
- 10. CONCRETE MUST BE CURED IMMEDIATELY AFTER FINISHING OPERATIONS IN ACCORDANCE WITH ONE OF THE FOLLOWING METHODS:
- a. APPLY A LIQUID MEMBRANE FORMING CHEMICAL CURING COMPOUND IN ACCORDANCE WITH ASTM C309 b. WET CURE IN ACCORDNACE WITH ACI 301
- 11. REMOVE LIQUID MEMBRANE FORMING CHEMICAL CURING COMPOUND AFTER CURING PERIOD HAS ELAPSED, REMOVE CURING COMPOUND WITHOUT DAMAGING CONCRETE SURFACES BY METHOD RECOMMENDED BY CURING COMPOUND MANUFACTURER.
- 12. ALL EXPOSED CONCRETE MUST HAVE A RUBBED SURFACE FINISH IMMEDIATELY AFTER REMOVING THE FORMS. ALL HONEYCOMB VOIDS, AND OTHER SURFACE DEFECTS AND IRREGULARITIES MUST BE GROUTED. THE SURFACE MUST THEN BE THOROUGHLY DAMPENED AND RUBBED WITH A NO. 16 CARBORUNDUM STONE OR EQUAL ABRASIVE TO CREATE A UNIFORM SURFACE PASTE. THE RUBBING MUST BE CONTINUED TO REMOVAL ALL FORM MARKS AND SURFACE IRREGULARITIES PRODUCING A SMOOTH, DENSE SURFACE. AFTER CURING, THE SURFACE MUST THEN BE RUBBED WITH A NO. 30 CARBORUNDUM STONE UNTIL THE SURFACE IS SMOOTH IN TEXTURE AND UNIFORM IN COLOR. REMOVAL ALL LATHER, POWDER, AND DUST ON RUBBED SURFACES.
- 13. DETAILING OF REBAR MUST BE IN ACCORDANCE WITH THE LATEST REVISION OF THE ACI DETAILING MANUAL AND CONCRETE REINFORCING INSTITUTE'S LATEST EDITION OF "MANUAL OF STANDARD PRACTICE"
- 14. ALL DIMENSIONS PERTAINING TO LOCATION OF REINFORCING BARS ARE TO CENTERLINE OF BARS EXCEPT WHERE THE CLEAN DIMENSION IS SHOWN TO FACE OF CONCRETE.
- 15. REINFORCEMENT DETAIL DIMENSIONS MUST BE OUT-TO-OUT OF BARS.
- 16. PROVIDE 3" CONCRETE COVER OVER REINFORCING BARS EXCEPT OTHERWISE NOTED.
- 17. BARS MUST BE FIELD TIED. WELDING IS NOT PERMITTED.
- 18. SUPPORT REINFORCEMENT IN ITS PROPERTY LOCATION FROM THE FORMWORK DURING CONCRETE OPERATION.
- 19. BAR SUPPORTS, DESIGN DETAILING, FABRICATION, AND PLACING OF REINFORCING BARS MUST BE IN ACCORDANCE WITH ACI 318.
- 20. PROVIDE 3/4" CHAMFERS AT ALL EXPOSED EDGES OF CONCRETE SURFACES.
- 21. FORM TIES AND REINFORCING BAR SUPPORTS MUST BE OF NON-CORROSIVE MATERIAL INCLUDING. BUT NOT LIMITED TO, FIBERGLASS, PLASTIC, AND/OR CONCRETE BLOCK.
- 22. CONTRACTOR IS RESPONSIBLE FOR THE PROPER DESIGN AND CONSTRUCTION OF ALL FORMWORK AND SHORING. DESIGN MUST BE PERFORMED BY A LICENSED PROFESSIONAL ENGINEERING IN THE STATE OF MICHIGAN.



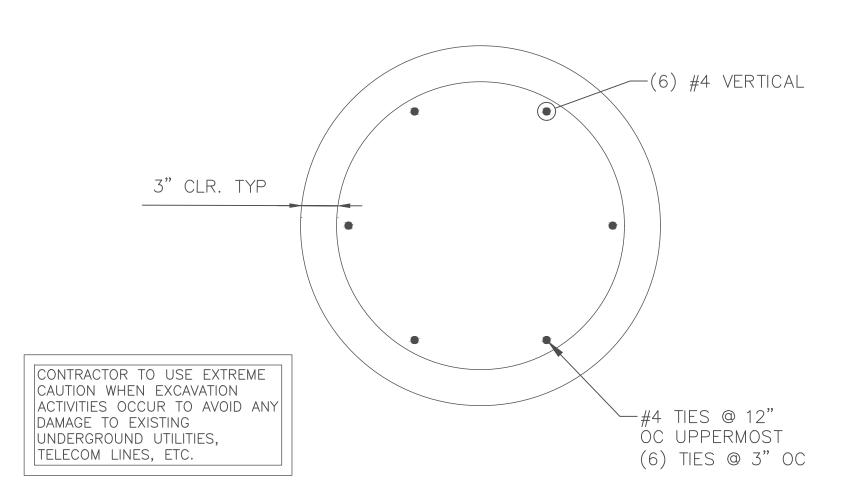
1. DESIGN BASED ON A WIND SPEED OF 107 MPH PER LRFD SPECIFICATION STRUCTURAL SUPPORTS FOR

HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS (1ST EDITION). 2. FOUNDATION DESIGN DOES NOT INCLUDE LOADING FOR BANNERS, PLANTINGS, OR OTHER MISC. LOADS.

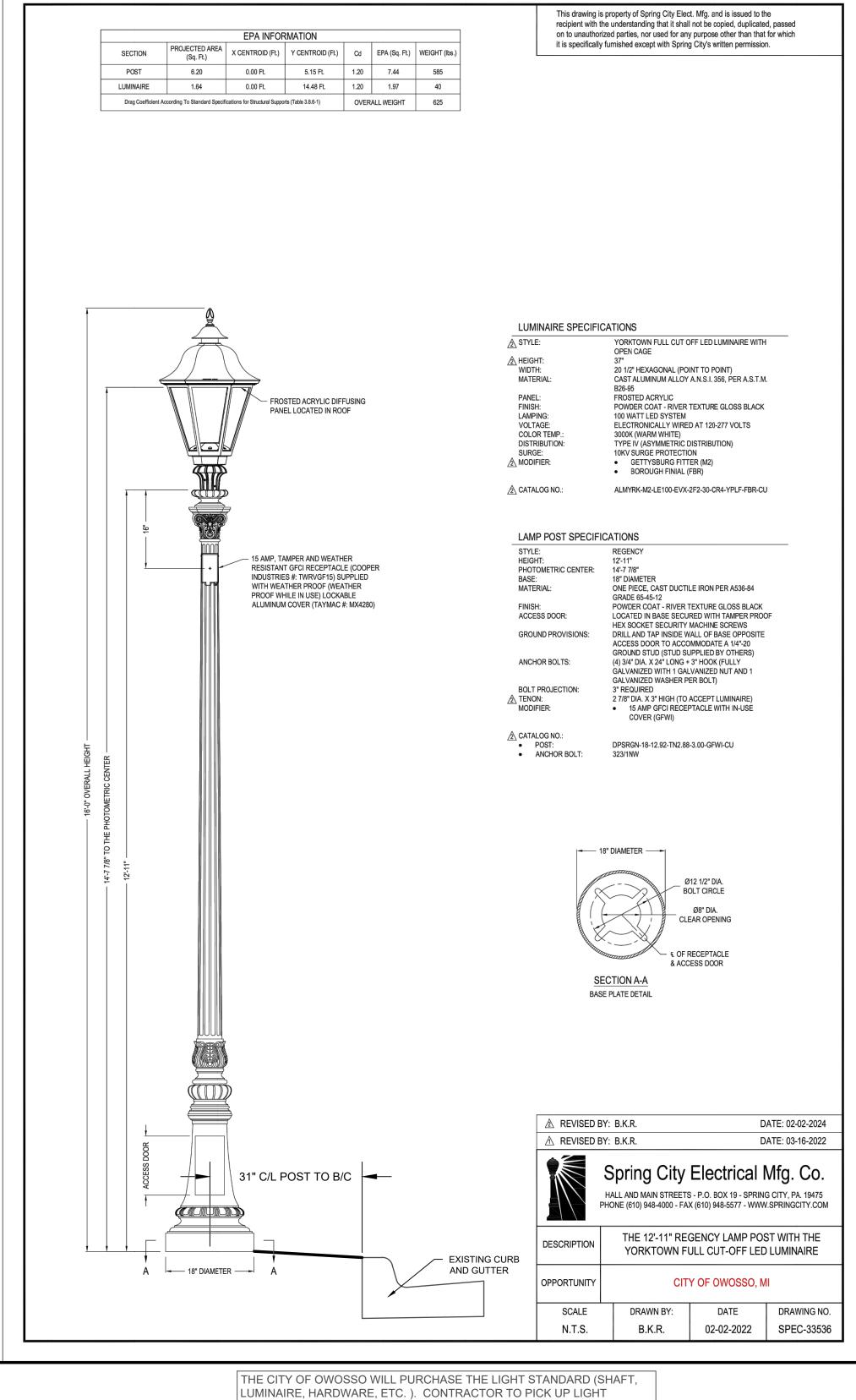
TABLE 1: LIGHT POLE EMBEDMENT DEPTHS								
TOTAL LIGHT POLE HEIGHT	FIXTURE EPA	POST EPA	CROSS ARM EPA	FOUNDATION DEPTH "D"				
17' - 3"	1.79 SQ. FT	7.44 SQ. FT	2.88 SQ. FT	5' - 0"				

LIGHT POLE FOUNDATION

SCALE: NTS







STANDARDS FROM OWOSSO DEPARTMENT OF PUBLIC WORKS AT 522 MILWAUKEE STREET, TRANSPORT LIGHT STANDARDS TO WORK SITE, AND INSTALL.

INSTALLATION COST SHALL INCLUDE ALL NECESSARY WIRING FOR THE LUMINAIRE AND RECEPTACLE.



THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK WITH THE LOCAL ELECTRIC UTILITY (CONSUMERS ENERGY) AND OBTAINING ALL NECESSARY ELECTRIC PERMITS FROM THE OWOSSO BUILDING DEPARTMENT.

GENERAL NOTES

UNDERGROUND UTILITIES/MISS DIG

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174, 2013, THE CONTRACTOR SHALL DIAL 1-800-482-7171 FOR A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS, PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. MEMBER WILL THUS BE ROUTINELY NOTIFIED. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE A PART OF THE "MISS DIG" ALERT SYSTEM.

THE EXISTING UTILITIES ON THESE DRAWINGS HAVE BEEN SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION AND SHALL NOTIFY THE ENGINEER AS TO WHERE POSSIBLE CONFLICT EXIST.

EXISTING WATER MAINS AND SEWERS

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO PROPERLY IDENTIFIED EXISTING WATER MAINS, SERVICE LINES, AND / OR EXISTING SEWERS DURING THE CONSTRUCTION OF THE PROJECT.

ADJUSTING OF MONUMENT BOXES

ALL GOVERNMENT CORNERS ON THIS PROJECT SHALL BE PRESERVED, WHETHER SHOWN OR NOT. IT MAY BE NECESSARY TO PLACE OR ADJUST MONUMENT BOXES AS REQUIRED.

PAVEMENT MARKINGS AND SIGNS

ALL PERMANENT PAVEMENT MARKINGS, SHAPES, AND DIMENSIONS SHALL CONFORM WITH MDOT PAVEMENT MARKING TYPICALS PAVE - 900 SERIES.

SOIL EROSION MEASURES

APPROPRIATE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO EARTH DISTURBING ACTIVITIES. PLACE LAWN RESTORATION ITEMS AS SOON AS POSSIBLE ON POTENTIAL ERODIBLE SLOPES AS DIRECTED BY THE ENGINEER. CRITICAL DITCH GRADES SHALL BE PROTECTED WITH EITHER SOD OR SEED / MULCH BLANKET AS DIRECTED BY THE ENGINEER.

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES ARE IN PLACE AND MAINTAINED UNTIL THE CONTRACT HAS BEEN COMPLETED AND ACCEPTED. MEASURES SHALL ONLY BE PAID FOR ONCE.

RUBBISH DISPOSAL

SEE MAINTAINING TRAFFIC SPECIAL PROVISIONS.

SEE MAINTAINING TRAFFIC SPECIAL PROVISIONS.

CURB AND GUTTER

ALL NEW SECTIONS OF CURB AND GUTTER SHALL BE TIED TO EXISTING CURB AND GUTTER ON BOTH ENDS USING EPOXY COATED #4 BARS.

SIDEWALK RAMPS AND SIDEWALKS

SIDEWALK RAMPS SHALL BE COMPLETED IN ACCORDANCE WITH THE MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MDOT STANDARD PLAN R-28 SERIES, EXCEPT AS MODIFIED HEREIN. THE PORTION OF RAMP FROM THE CURB AND GUTTER TO THE LANDING SHALL BE 7-INCHES THICK AS IDENTIFIED ON THE SIDEWALK RAMP THICKNESS DETAIL. THE LANDING SHALL BE 4-INCHES THICK. THE PAY ITEMS FOR Curb Ramp, Conc, __ inch AND Sidewalk, Conc, inch SHALL INCLUDE ALL EXCAVATION AND EMBANKMENT NECESSARY TO CONSTRUCT EACH ITEM AND ALL WORK NECESSARY TO SAW AND TRIM EDGES OF EXISTING CONCRETE. EXCAVATION AND EMBANKMENT WILL NOT BE PAID FOR SEPARATELY.

DETECTIBLE WARNING SURFACES SHALL BE EAST JORDAN DURALAST TM AND RED IN COLOR, INSTALLED ONTO FRESH CONCRETE, AND IN ACCORDANCE WITH MDOT STANDARD R-28 SERIES. THE WARNING SURFACES SHALL BE 2.5 FEET IN LENGTH SUCH THAT TWO PLATES ARE USED FOR EACH 5 FOOT WIDE RAMP.

SIDEWALKS LOCATED WITHIN RESIDENTIAL DRIVEWAYS SHALL BE 6-INCHES THICK AND WILL BE PAID FOR AS Sidewalk, Conc, 6 inch.

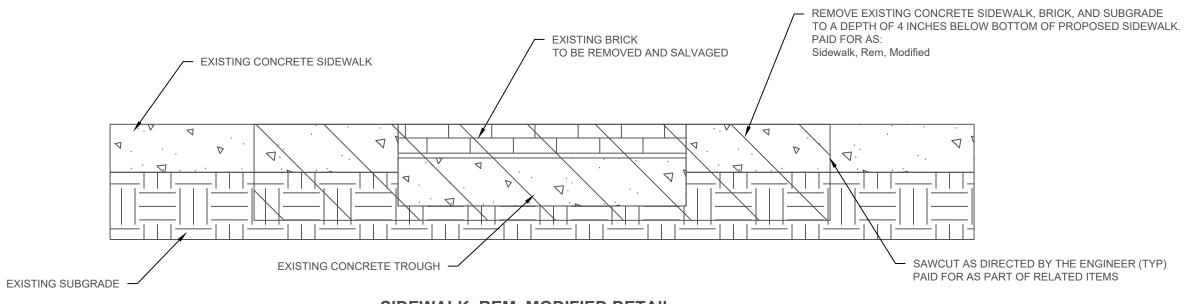
SIDEWALKS LOCATED WITHIN COMMERCIAL DRIVEWAYS SHALL BE 7-INCHES THICK AND WILL BE PAID FOR AS Sidewalk, Conc, 7 inch.

LAWN SPRINKLERS / LANDSCAPING

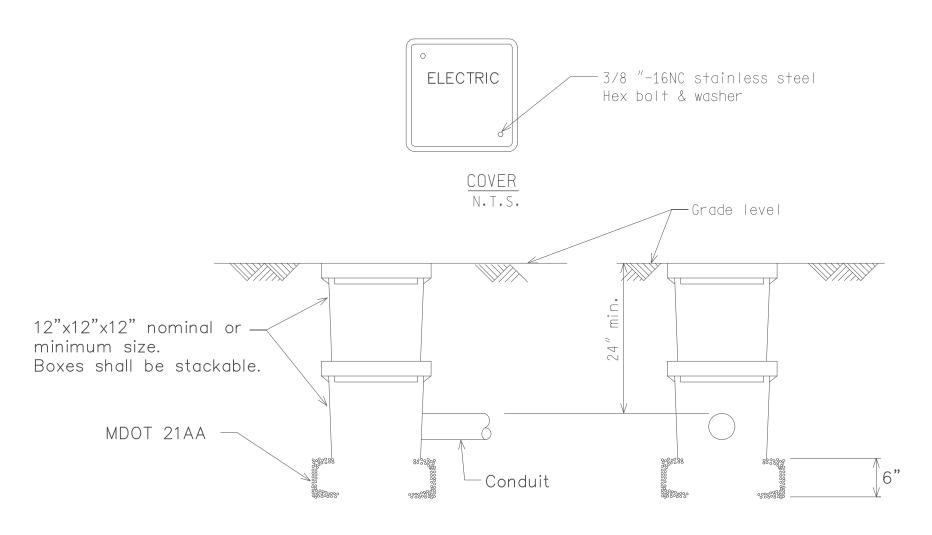
OWNERS OF EXISTING LAWN SPRINKLER SYSTEMS AND / OR LANDSCAPING SHALL BE NOTIFIED (IN WRITING WITH A COPY SENT TO THE ENGINEER) BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF ANY WORK THAT WILL BE DONE THAT WILL AFFECT THOSE SYSTEMS AND / OR LANDSCAPING. IF THE PROPERTY OWNER FAILS TO RELOCATE THE LAWN SPRINKLER SYSTEM PRIOR TO THE CONTRACTOR BEGINNING WORK, AND IF THE CONTRACTOR CUTS THE SYSTEM DURING CONSTRUCTION, THE CONTRACTOR SHALL CAP THE SYSTEM PIPE AND WITNESS THE LOCATION OF THE CAP WITH A WOODEN STAKE FOR THE PROPERTY OWNERS USE. THE CONTRACTOR SHALL PLACE THE SALVAGED SPRINKLER HEADS ON THE BACK OF THE RIGHT OF WAY. IF THE PROPERTY OWNER FAILS TO RELOCATE THE LANDSCAPING PRIOR TO THE CONTRACTOR BEGINNING WORK, THE CONTRACTOR SHALL CAREFULLY SALVAGE THE LANDSCAPING ITEMS AND STOCKPILE THEM ON THE BACK OF THE RIGHT OF WAY OR AT A LOCATION DESIGNATED BY THE ENGINEER FOR THE PROPERTY OWNER. ANY OTHER MODIFICATION TO THE SPRINKLER SYSTEM AND / OR LANDSCAPING IS THE RESPONSIBILITY OF THE OWNER AND IS NOT PART OF THIS CONTRACT. THIS WORK WILL NOT BE PAID FOR SEPARATELY.

PROPERTY OWNERS' NAMES, WHERE SHOWN, ARE FOR INFORMATION ONLY, AND THIER ACCURACY IS NOT GUARANTEED.

REFER TO THE CONTRACT SPECIAL PROVISION FOR WORK RESTRICTIONS RELATIVE TO MAINTAINING TRAFFIC.



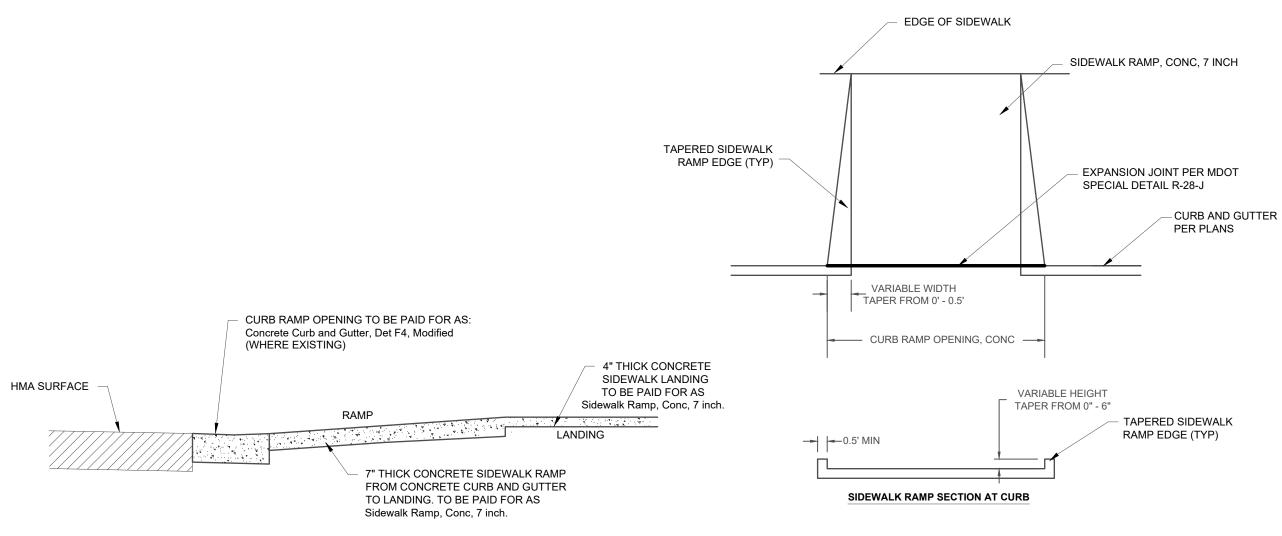
SIDEWALK. REM. MODIFIED DETAIL NOT TO SCALE



POLYMER CONCRETE HANDHOLE DETAIL

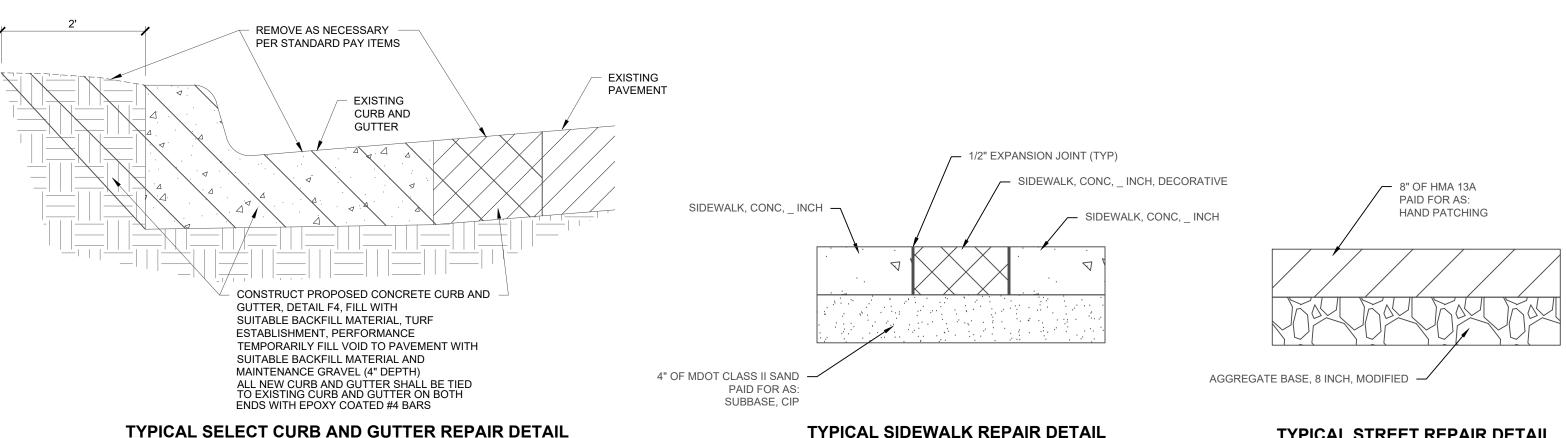
NOTES:

- 1. THE INNER SURFACE OF THE HANDHOLE SHALL BE SMOOTH
- 2. HANDHOLE AND COVER SHALL BE TIER 22
- 3. THE SEATING FACE OF THE COVER AND THE SEAT ON THE FRAME SHALL HAVE AN EVEN BEARING TO PREVENT ROCKING OR TILTING.
- 4. THE HANDHOLES SHALL BE FREE OF POURING FAULTS, BLOW HOLES, CRACKS, AND OTHER IMPERFECTIONS. THEY SHALL BE SOUND, TRUE TO FORM AND THICKNESS, CLEAN, AND NEATLY FINISHED.
- 5. THE COVER SHALL BE BOLTED TO FRAME WITH NOT LESS THAN 2 COUNTERSUNK HEX HEAD STAINLESS STEEL BOLTS.
- 6. THE COVER SHALL BE MARKED "ELECTRIC"
- 7. EACH LOCATION OF HANDHOLE INSTALLATION SHALL BE PAID FOR AS 1 EACH. INDEPENDENT OF THE NUMBER OF STACKABLE BOXES USED.



SIDEWALK RAMP THICKNESS DETAIL NOT TO SCALE

SIDEWALK RAMP DETAIL NOT TO SCALE

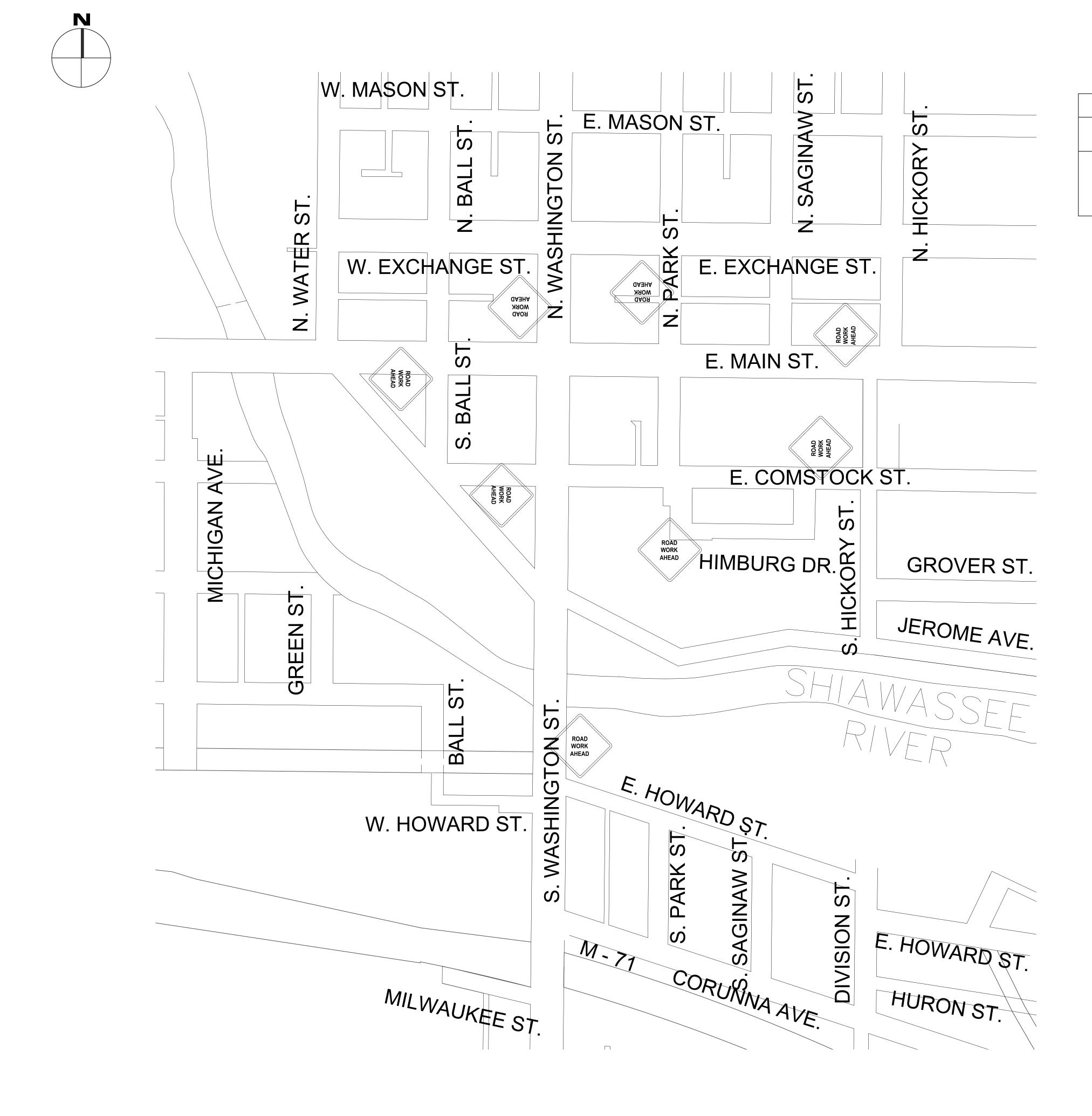


TYPICAL SELECT CURB AND GUTTER REPAIR DETAIL

NOT TO SCALE

TYPICAL STREET REPAIR DETAIL NOT TO SCALE

TY OF OWOSSO, MICHIGA ENGINEERING DIVISION EPT. OF PUBLIC SERVICE EWALI FES & ∞ \perp



SIGNING REQUIREMENTS									
NO.	SIGN	SIGN DESIGNATOIN SIZE		NO. REQ.	TOTAL AREA (SFT)				
1	ROAD WORK AHEAD	W20-1	48 x 48	8	128				

TR1

CITY OF OWOSSO, MICHIGAN ENGINEERING DIVISION DEPT. OF PUBLIC SERVICE

