CITY OF OWOSSO

2025 DRAINAGE IMPROVEMENTS PROJECT

SHIAWASSEE COUNTY

SECTIONS 14, 23, & 24, T7N-R2E, CITY OF OWOSSO
POP: 15,194 (2010 CENSUS)

SHEET NO.	DESCRIPTION
CS	COVER SHEET
D1	LEGEND, MISCELLANEOUS ESTIMATES, & SESC KEY
D2	GENERAL NOTES AND DETAILS
CO1	COVENTRY CT - TRAFFIC CONTROL PLAN
CO2	COVENTRY CT - CONSTRUCTION PLAN
NO1	NORTH ST - TRAFFIC CONTROL PLAN
NO2 - NO3	NORTH ST - REMOVAL & CONSTRUCTION PLAN

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

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

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

SANITARY SEWER & WATER MAIN
989-725-0550
ryan.suchanek@ci.owosso.mi.us

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

ELECTRIC
OFFICE: 989-729-3250
CELL: 517-204-9018
tmmahar@cmsenergy.com

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

GAS
OFFICE: 517-374-2375
CELL: 517-614-8570
adam.bertram@cmsenergy.com

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

FIBER
PHONE: 989-720-6004
FAX: 989-720-6060
jared.jackson@daystarrfiber.net

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

FIBER
PHONE: 989-627-9759
harold.roth@ftr.com

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 PROJECT.

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.

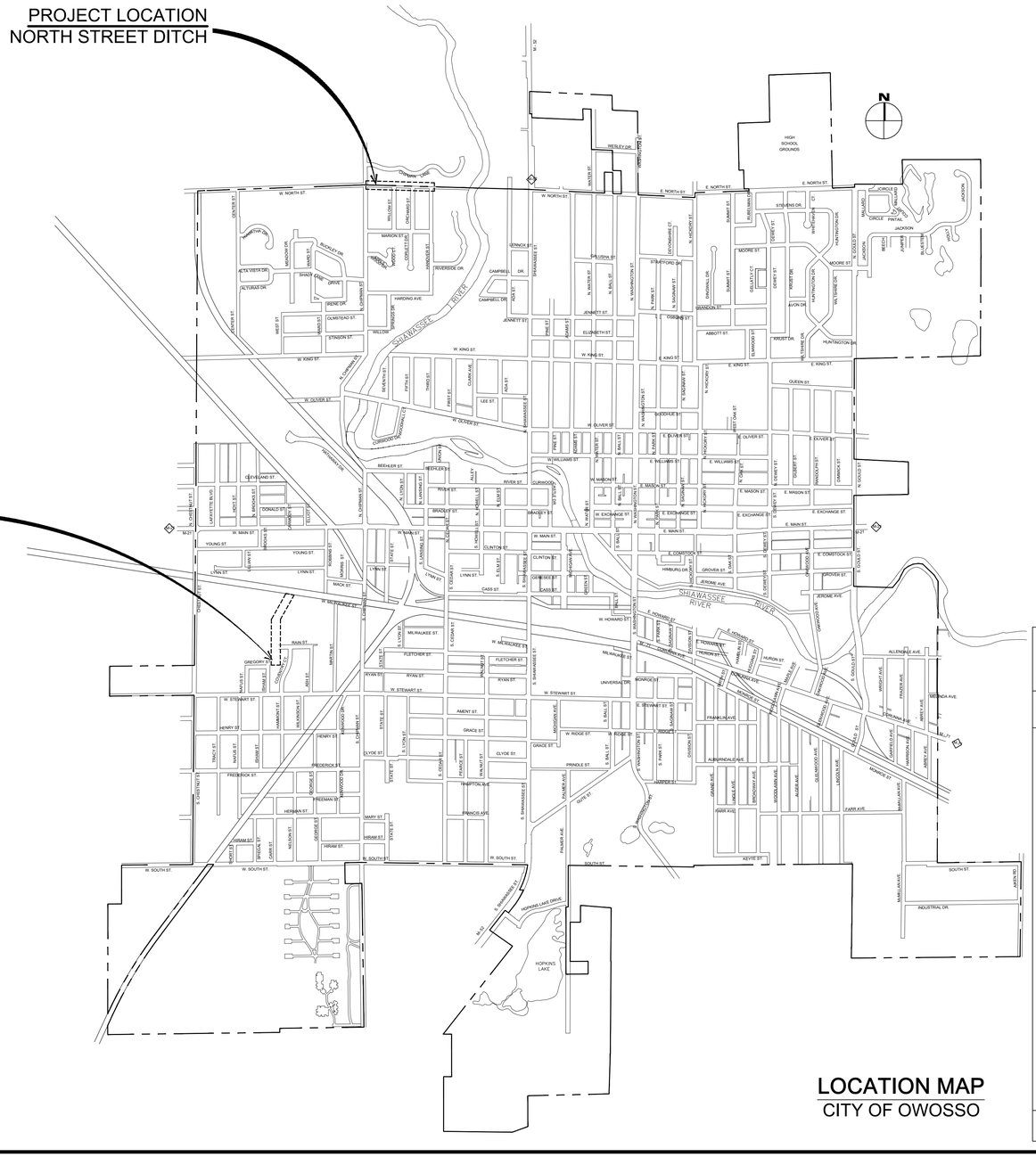
DRAINAGE STRUCTURES	R-1-G*
COVER B	R-7-F
MONUMENT BOXES	R-11-E
COVER K	R-15-F
COVER Q	R-18-F
SIDEWALK RAMP AND DETECTABLE WARNING DETAILS	R-28-J*
DRIVEWAY OPENINGS & APPROACHES AND CONCRETE SIDEWALKS	R-29-I
CONCRETE CURB AND CONCRETE CURB AND GUTTER*	R-30-G
BUMPER & PARKING RAIL AND MISC. WOOD POSTS	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.

PROJECT LOCATION
NORTH STREET DITCH

PROJECT LOCATION
COVENTRY COURT DITCH



LOCATION MAP
CITY OF OWOSSO

THE DESIGN OF THIS WORK IS BASED ON THE MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2020 EDITION, AND THE AASHTO 7TH EDITION OF "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS", AND THE MICHIGAN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, 2011 EDITION.

CONTRACT FOR: STORM SEWER INSTALLATION AND DITCH CLEANING.

CITY OF OWOSSO APPROVAL

STATE OF MICHIGAN
CLAYTON ROBERT WEHNER
ENGINEER
No. 6201000052
LICENSED PROFESSIONAL ENGINEER

Clayton Wehner
DIRECTOR OF ENGINEERING CLAYTON WEHNER, PE

620100052
REGISTRATION NUMBER

11/4/2024
DATE

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

NO.	REVISIONS	DATE	BY
1	IFB PLANS	11/4/24	CW

ORIGINAL PLAN APPROVED BY

CHECKED BY

BENCH MARK DATA

ELEV.	DESCRIPTION

2025 DRAINAGE IMPROVEMENTS PROJECT
COVER SHEET

JANUARY 2025
PROJECT NO.

FIELD BOOK
PG.

CS

EXISTING FEATURES LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	TREE (DECIDUOUS)		CABLE BOX		SURVEY CONTROL POINT
	BUSH		TELEPHONE RISER	BM#1	BENCHMARK
	TREE (CONIFEROUS)		TELEPHONE MANHOLE		SECTION CORNER
	DEAD TREE		TELEPHONE HANDHOLE		BOUNDARY LINE
	STUMP		ELECTRICAL RISER		PROPERTY LINE
	MANHOLE		ELECTRICAL MANHOLE		WATERMAIN
	SANITARY CLEANOUT		ELECTRICAL HANDHOLE		SANITARY SEWER
	RD. CATCH BASIN		POWER POLE		STORM SEWER
	SQ. CATCH BASIN		LIGHT POLE		CULVERT (21" AND UNDER)
	FIRE HYDRANT		GUY POLE		CULVERT (24" AND UP)
	WATER VALVE		GUY ANCHOR	CATV	CABLE T.V.
	CURB STOP & BOX		PED CROSSING SIGNAL		TELEPHONE
W	WELL		YARD LIGHT		ELECTRIC
	WATER MANHOLE		SIGN		GAS
	WATER METER		MAILBOX	OH	OVERHEAD LINES
B#	SOIL BORING		GUARD POST		GUARDRAIL
	MONITORING WELL		FOUND CONC. MONUMENT		FENCE
			FOUND IRON ROD		WOODLINE
			SET IRON ROD		

NOTE: ALL ITEMS LISTED ON THE LEGEND MAY NOT BE PRESENT 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 $13,900

MAINTAINING TRAFFIC QUANTITIES

Quantity	Unit	Pay Item
4	Ea	Barricade, Type III, High Intensity, Double Sided, Furn & Oper
2	Ea	Lighted Arrow, Type C, Furn & Oper
1	LSUM	Minor Traffic Devices, Max $5,000
25	Ea	Plastic Drum, High Intensity, Furn & Oper
408	Sft	Sign, Type B, Temp, Prismatic, Furn & Oper
1	LSUM	Traf Regulator Control

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

KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
EROSION 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		Stabilization method utilized on construction sites where earth change has been initiated but not completed within a 2 week period.
E8	PERMANENT SEEDING		Stabilization method utilized on sites where earth change has been completed (final grading attained).
E9	MULCH BLANKETS		On exposed slopes, newly seeded areas, new ditch bottoms, or areas subject to erosion.
E10	SODDING		On areas and slopes where immediate stabilization is required.
E11	VEGETATED CHANNELS		For use in created stormwater channels. Vegetation is used to slow water velocity and reduce erosion within the channel.
E12	RIPRAP		Use along shorelines, waterways, or where concentrated flows occur. Slows velocity, reduces sediment load, and reduces erosion.
E13	GABION WALLS		On newly created or denuded stream banks to reduce velocity until permanent stabilization is achieved or on existing banks 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

KEY	BEST MANAGEMENT PRACTICES	SYMBOL	WHERE USED
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	In areas requiring protection of slopes against surface erosion and shallow mass wasting.
	EROSION / SEDIMENT CONTROLS		
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	B	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		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	B	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	B	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
SEDIMENT CONTROLS			
S51	SILT FENCE		Use adjacent to critical areas, to prevent sediment laden sheet 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 EROSION/SEDIMENTATION CONTROL
OPERATION TIME SCHEDULE

CONSTRUCTION SEQUENCE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
STRIP AND STOCKPILE TOPSOIL								N/A				
ROUGH GRADE/ SEDIMENT CONTROL								N/A				
TEMP CONTROL MEASURES												
STORM FACILITIES												
TEMP CONSTRUCTION ROADS								N/A				
FOUNDATION/ BLDG. CONSTRUCTION								N/A				
SITE CONSTRUCTION												
PERM CONTROL MEASURES												
FINISH GRADING												
LANDSCAPING								N/A				

CONSTRUCTION SEQUENCE

1. INSTALLATION OF TEMPORARY EROSION CONTROL MEASURES.
2. EXCAVATION/DITCH CLEANING
3. PERMANENT MEASURES (TURF RESTORATION).

CITY OF OWOSSO, MICHIGAN
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2025 DRAINAGE IMPROVEMENTS PROJECT

LEGEND, MISCELLANEOUS ESTIMATES & SESC KEY

JANUARY 2025
PROJECT NO.

FIELD BOOK
P.G.

D1

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 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.

MAIL DELIVERY
SEE MAINTAINING TRAFFIC SPECIAL PROVISIONS.

SEWER STRUCTURES
ALL ORIFICES TO RECEIVE SEWER PIPE SHALL BE FITTED WITH KOR-N-SEAL FLEXIBLE CONNECTOR (S) , OR APPROVED EQUAL CONNECTOR. THE FLEXIBLE CONNECTOR WILL NOT BE PAID FOR SEPARATELY, BUT IS CONSIDERED AS PART OF THE DRAINING STRUCTURE PAY ITEM.

SEWER CONNECTIONS
PROPOSED SEWERS SHALL BE CONNECTED TO EXISTING SEWERS WITH A FERNCO COUPLER, OR APPROVED EQUAL, AS DIRECTED BY THE ENGINEER. CONNECTION SHALL BE ACCOMPLISHED WITH COUPLER OF SIMILAR SIZE IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. PAYMENT FOR ALL MATERIALS AND LABOR NECESSARY TO ACCOMPLISH THIS WORK WILL NOT BE PAIR FOR SEPARATELY, BUT WILL BE CONSIDERED AS PART OF OTHER WORK ITEMS.

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 BLACK ASPHALT DIPPED, 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.

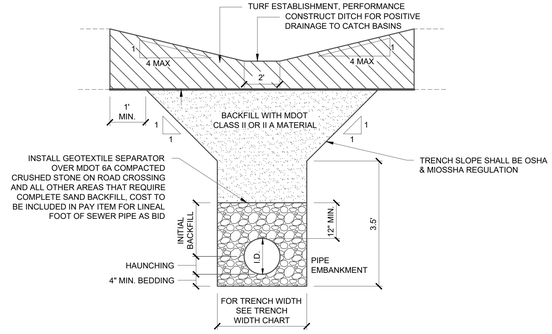
SAWCUTTING
PAYMENT FOR SAWCUTTING REQUIRED THROUGHOUT THE PROJECT SHALL BE INCLUDED IN REMOVAL ITEMS AND WILL NOT BE PAID FOR SEPARATELY.

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

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

MAINTENANCE NOTES
THE CONTRACTOR SHALL SCRAPE AND SWEEP ALL PUBLIC ROADS WITHIN WORK AREA AS NECESSARY TO MAINTAIN PAVEMENT AND PRIOR TO OPENING TO TRAFFIC.



TRENCH DETAIL A, MODIFIED DETAIL
NOT TO SCALE

TRENCH WIDTH CHART		
PIPE SIZE	MINIMUM	MAXIMUM
6", 8" & 10"	24"	30"
12" & 15"	30"	36"
18"	34"	40"
21"	38"	42"
24"	42"	46"
27"	45"	49"
30"	49"	53"
36"	56"	60"
LARGER THAN 36"	I.D. +20"	I.D. +24

PROPOSED DITCH CROSS SECTION - NORTH ST
NOT TO SCALE

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

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ORIGINAL PLAN APPROVED BY
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BENCH MARK DATA

ELEV.	DESCRIPTION

2025 DRAINAGE IMPROVEMENTS PROJECT

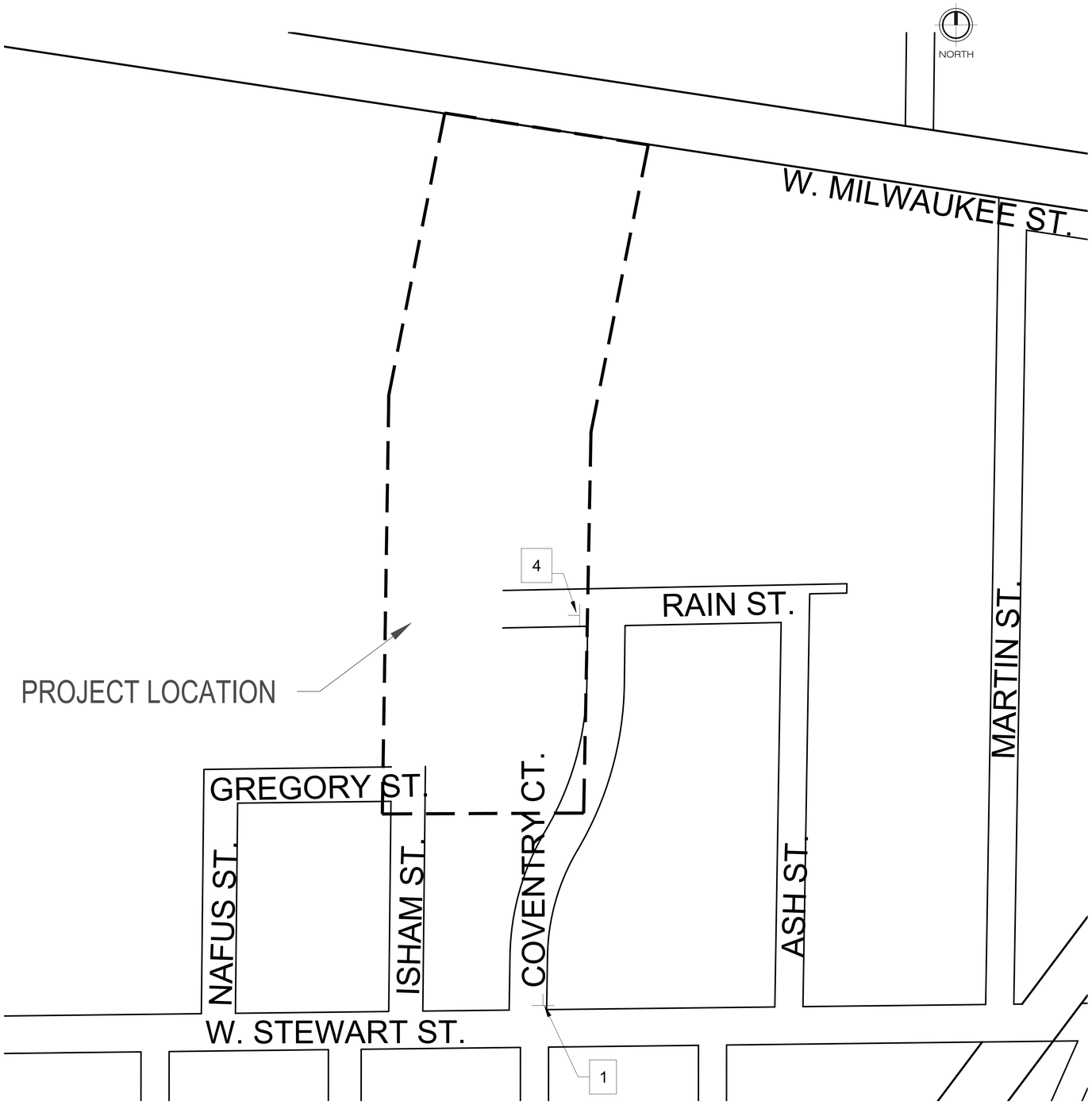
GENERAL NOTES & DETAILS

JANUARY 2025
PROJECT NO.

FIELD BOOK
PG.

D2

COVENTRY COURT
CITY OF OWOSSO
2025 DRAINAGE IMPROVEMENTS PROJECT



SIGNING REQUIREMENTS					
NO.	SIGN	SIGN DESIGNATOIN	SIZE	NO. REQ.	TOTAL AREA (SFT)
1	ROAD WORK AHEAD	W20-1	48 x 48	1	16
4		TYPE III BARRICADE		1	

MAINTAINING TRAFFIC LEGEND

PROJECT LOCATION

TEMPORARY SIGN

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

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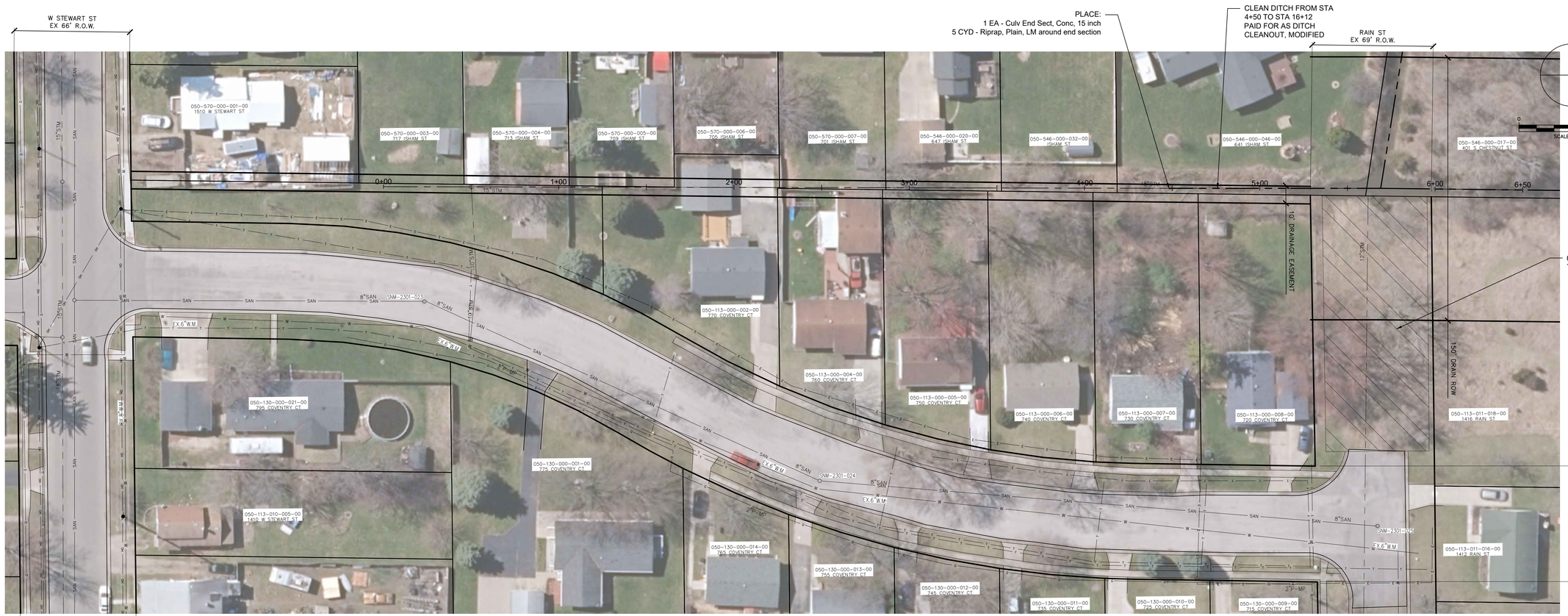
2025 DRAINAGE IMPROVEMENTS PROJECT

COVENTRY COURT
TRAFFIC CONTROL PLAN

JANUARY 2025
PROJECT NO.

FIELD BOOK
P.G.

CO1



COVENTRY COURT DITCH

PLAN

BM 738.54
RIM OF SNM-2301-023

TRIM TREES OVERHANGING THE DITCH AS NEEDED AS DIRECTED BY THE ENGINEER. TO BE PAID FOR AS PART OF RELATED ITEMS

CONSTRUCTION QUANTITIES (COVENTRY COURT DITCH)

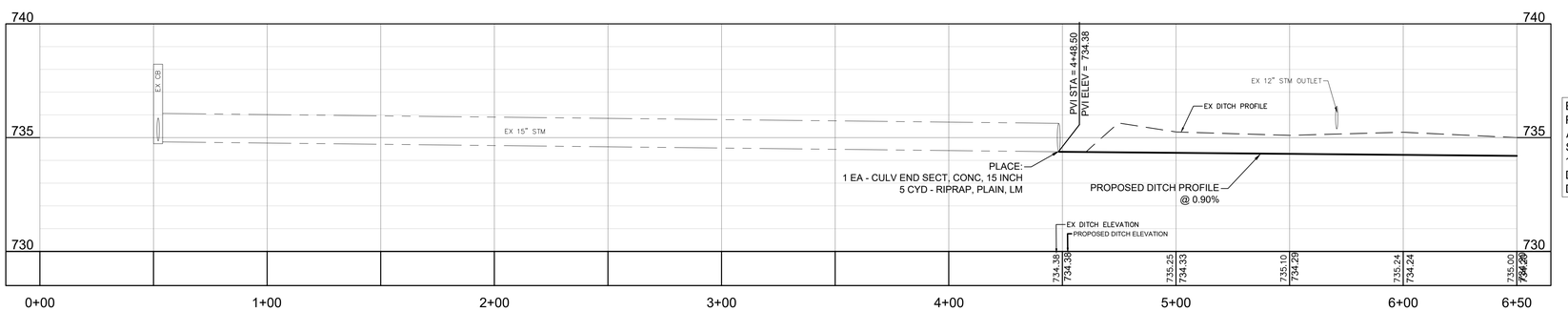
QUANTITY	UNIT	WORK ITEM
0.2	Acre	Clearing
11.7	Sta	Ditch Cleanout, Modified
1	Ea	Culv End Sect, Conc, 15 inch
5	Cyd	Riprap, Plain, LM
2000	Syd	Turf Establishment, Performance

LEGEND

- Curb and Gutter, Rem
- Sewer, Rem
- Dr Structure, Rem
- HMA Surface, Rem
- Pavt, Rem
- Sidewalk, Rem
- Excavation Earth
- STANDARD SOIL EROSION KEY

LEGEND

- Curb and Gutter, Conc, Det F4, Modified
- Sewer, SDR-26, __ inch, Tr Det _, Modified
- HMA, 13A
- Driveway, Nonreinf, Conc, __ inch
- Approach, Cl I, LM
- Sidewalk, Conc, __ inch
- Curb Ramp, Conc, __ inch
- STANDARD SOIL EROSION KEY



EXISTING DITCH PROFILE NOT AVAILABLE FROM STA 6+50 TO STA 16+12. ASSUME DITCH CLEANING DEPTH OF 1.5'.

CITY OF OWOSSO, MICHIGAN
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2025 DRAINAGE IMPROVEMENTS PROJECT

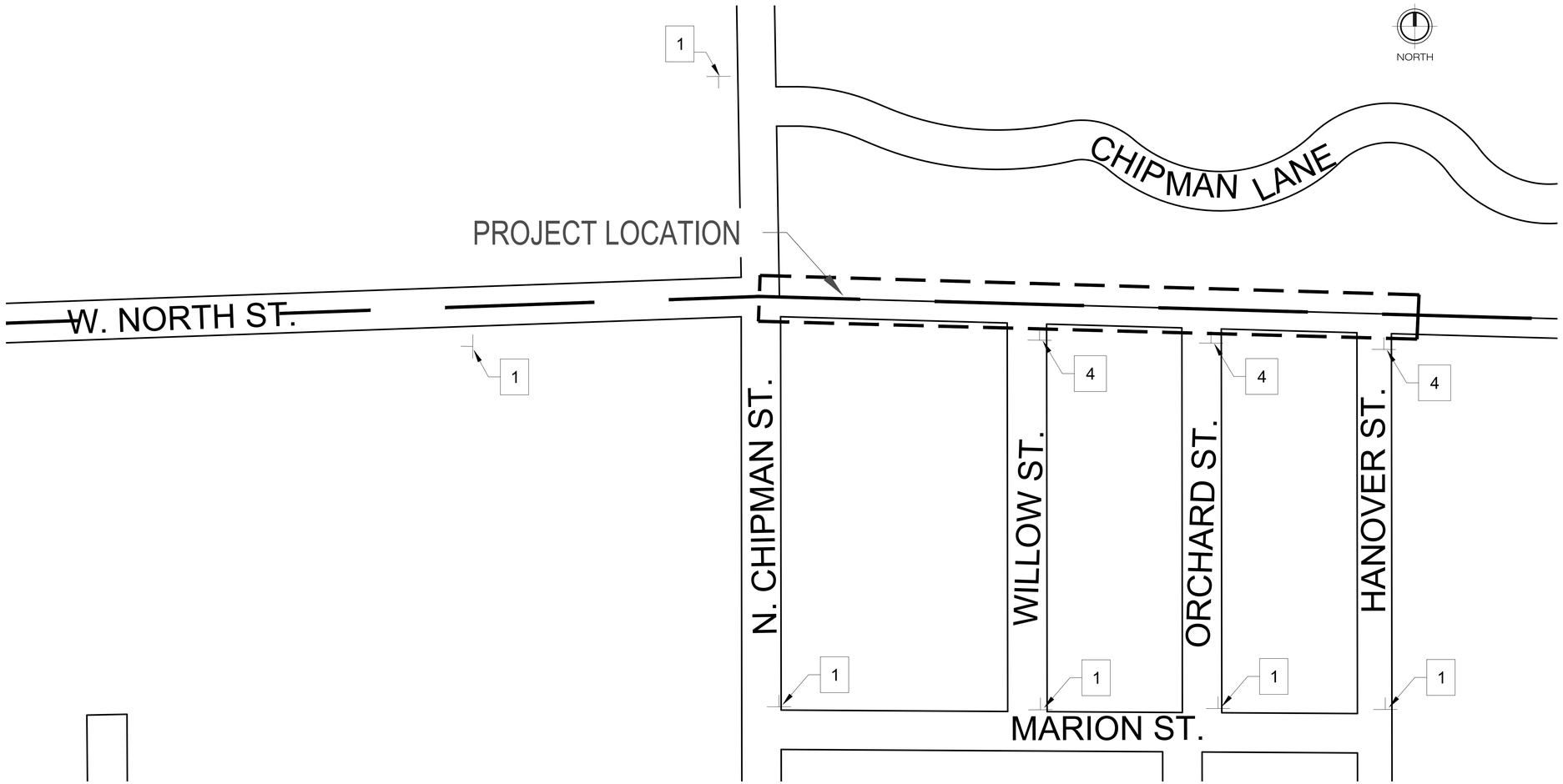
COVENTRY COURT DITCH
REMOVAL & CONSTRUCTION PLAN

FIELD BOOK
PG.

JANUARY 2025
PROJECT NO.

CO2

NORTH STREET
CITY OF OWOSSO
2025 DRAINAGE IMPROVEMENTS PROJECT



SIGNING REQUIREMENTS					
NO.	SIGN	SIGN DESIGNATOIN	SIZE	NO. REQ.	TOTAL AREA (SFT)
1	ROAD WORK AHEAD	W20-1	48 x 48	6	96
4		TYPE III BARRICADE		3	

THE NORTHBOUND LANE ON CHIPMAN STREET SHALL BE CLOSED AT NORTH STREET DURING DITCHING OPERATIONS AND ASSOCIATED WORK IN ACCORDANCE WITH MDOT MAINTAINING TRAFFIC TYPICAL 110-TR-NFW-2L. QUANTITIES FOR THIS CLOSURE ARE INCLUDED IN THE MAINTAINING TRAFFIC QUANTITIES TABLE ON SHEET D1.

MAINTAINING TRAFFIC LEGEND

PROJECT LOCATION

TEMPORARY SIGN

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

NO.	REVISIONS	DATE	BY
1	IFB PLANS	11/4/24	CW

ORIGINAL PLAN — APPROVED BY — CHECKED BY

BENCH MARK DATA
ELEV. — DESCRIPTION

2025 DRAINAGE IMPROVEMENTS PROJECT
NORTH STREET
TRAFFIC CONTROL PLAN
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NO1

EROSION CONTROL, INLET PROTECTION, FABRIC DROP

N CHIPMAN ST
EX 66' R.O.W.

CLEAN DITCH FROM STA 0+30 TO STA 6+00 PAID FOR AS DITCH CLEANOUT

CREATE POSITIVE DRAINAGE FROM THE STREET SURFACE TO THE DITCH. PAID FOR AS PART OF RELATED ITEMS

LEGEND

- Curb and Gutter, Rem
- Sewer, Rem
- Dr Structure, Rem
- HMA Surface, Rem
- Pavt, Rem
- Sidewalk, Rem
- Excavation Earth
- (#) STANDARD SOIL EROSION KEY

N CHIPMAN ST
EX 66' R.O.W.

WILLOW ST
EX 66' R.O.W.

SCALE IN FEET: 0 30 60

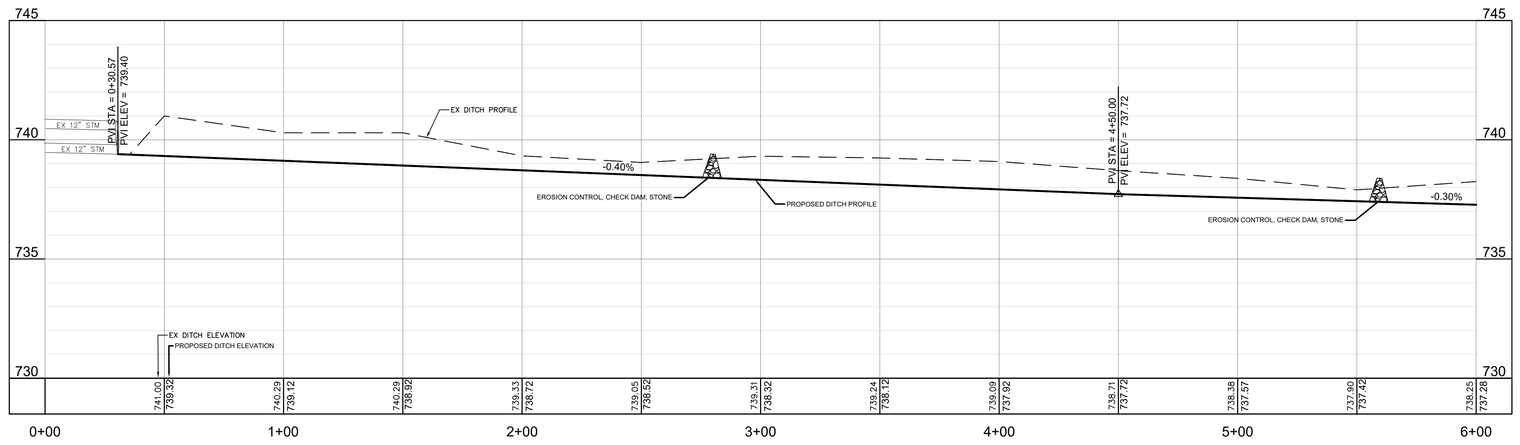
TRIM TREES OVERHANGING THE DITCH AS NEEDED AS DIRECTED BY THE ENGINEER. TO BE PAID FOR AS PART OF RELATED ITEMS

NORTH STREET DITCH

REMOVAL & CONSTRUCTION PLAN

QUANTITIES (NORTH STREET DITCH)		
QUANTITY	UNIT	WORK ITEM
5.7	Sta	Ditch Cleanout
40	Ft	Erosion Control, Check Dam, Stone
4	Ea	Erosion Control, Inlet Protection, Fabric Drop
1150	Syd	Turf Establishment, Performance

CHECK DAMS SHALL BE REMOVED ONCE TURF IS ESTABLISHED AS DIRECTED BY THE ENGINEER.



CITY OF OWOSSO, MICHIGAN
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NORTH STREET DITCH
REMOVAL & CONSTRUCTION PLAN

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NO2

LEGEND

- Curb and Gutter, Rem
- Sewer, Rem
- Dr Structure, Rem
- HMA Surface, Rem
- Pavt, Rem
- Sidewalk, Rem
- Excavation Earth
- STANDARD SOIL EROSION KEY

TRIM TREES OVERHANGING THE DITCH AS NEEDED AS DIRECTED BY THE ENGINEER. TO BE PAID FOR AS PART OF RELATED ITEMS

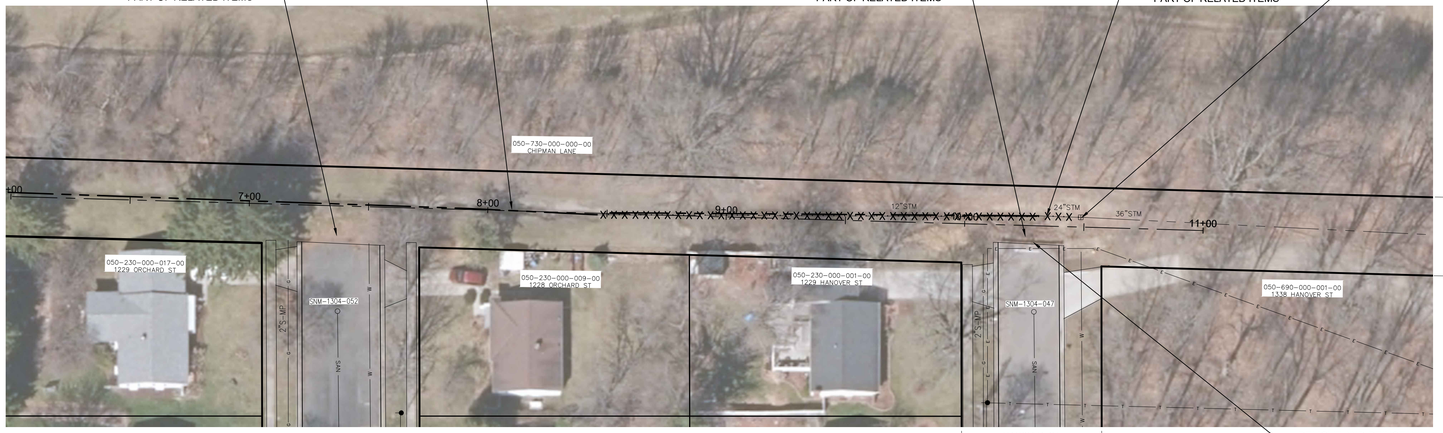
CREATE POSITIVE DRAINAGE FROM THE STREET SURFACE TO THE DITCH. PAID FOR AS PART OF RELATED ITEMS

CLEAN DITCH FROM STA 6+00 TO STA 10+50 PAID FOR AS DITCH CLEANOUT

CREATE POSITIVE DRAINAGE FROM THE STREET SURFACE TO THE DITCH. PAID FOR AS PART OF RELATED ITEMS

REMOVE EXISTING END SECTION, TEE, AND BAR GUARD AND SALVAGE. PAID FOR AS PART OF RELATED ITEMS

EROSION CONTROL, INLET PROTECTION, FABRIC DROP



REMOVE AND REINSTALL GUARDRAIL AS NEEDED AS DIRECTED BY THE ENGINEER. PAID FOR AS PART OF RELATED ITEMS

NORTH STREET DITCH
REMOVAL PLAN

N

0 30 60
SCALE IN FEET

LEGEND

- Curb and Gutter, Conc, Det F4, Modified
- Sewer, SDR-26, __ inch, Tr Det _, Modified
- HMA, 13A
- Driveway, Nonreinf, Conc, __ inch
- Approach, Cl I, LM
- Sidewalk, Conc, __ inch
- Curb Ramp, Conc, __ inch
- STANDARD SOIL EROSION KEY

CHECK DAMS SHALL BE REMOVED ONCE TURF IS ESTABLISHED AS DIRECTED BY THE ENGINEER.

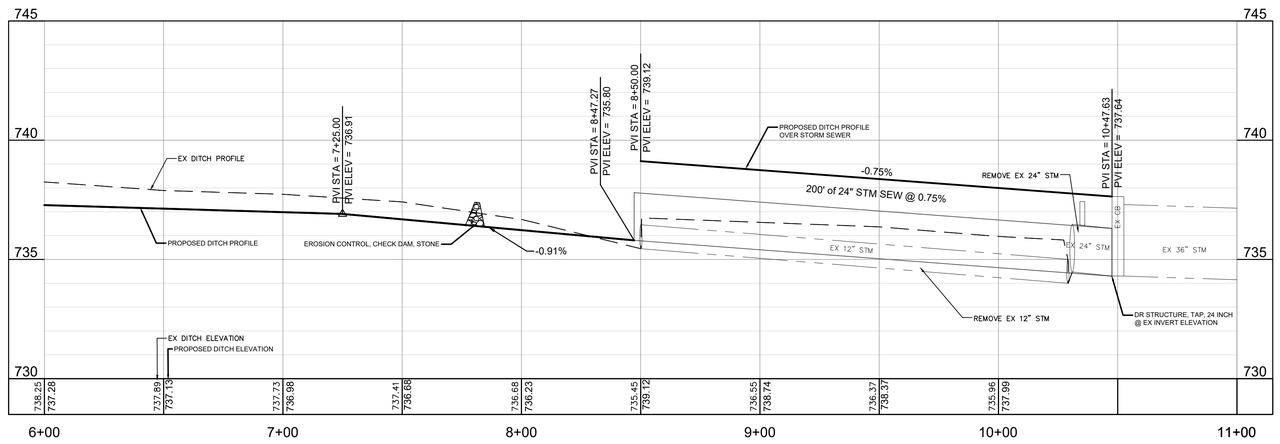
Dr Structure, Tap, 24 inch @ Existing Invert Elevation

PLACE Sewer, N-12, 24 inch, Tr Det A, Modified - 200 Ft (200' @ 0.75%)

REINSTALL END SECTION, TEE, AND BAR GUARD. PAID FOR AS PART OF RELATED ITEMS. PLACE 8 CYD - RIPRAP, PLAIN, LM AROUND END SECTION.

BM 737.63
RIM OF EX CB

NORTH STREET DITCH
CONSTRUCTION PLAN



QUANTITIES (NORTH STREET DITCH)		
QUANTITY	UNIT	WORK ITEM
187	Ft	Sewer, Rem, Less than 24 inch
20	Ft	Sewer, Rem, 24 inch to 48 inch
4.5	Sta	Ditch Cleanout
20	Ft	Erosion Control, Check Dam, Stone
1	Ea	Erosion Control, Inlet Protection, Fabric Drop
200	Ft	Sewer, N-12, 24 inch, Tr Det A, Modified
1	Ea	Dr Structure, Tap, 24 inch
8	Cyd	Riprap, Plain, LM
900	Syd	Turf Establishment, Performance

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2025 DRAINAGE IMPROVEMENTS PROJECT

NORTH STREET DITCH
REMOVAL & CONSTRUCTION PLAN

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NO3