



CITY OF ANN ARBOR PROJECT MANAGEMENT

IN COOPERATION WITH THE
MICHIGAN DEPARTMENT OF TRANSPORTATION
AND THE
FEDERAL HIGHWAY ADMINISTRATION

ANN ARBOR-SALINE ROAD PED CROSSINGS

MDOT JOB NO. 123795A
FEDERAL ITEM NO.

MDOT CONTROL SECTION NO. HSIP 81609
FEDERAL PROJECT NO.

NOTES:

FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 174, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 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. MEMBERS 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 UNDERGROUND LOCATIONS SHOWN FOR NATURAL GAS, TELEPHONE, ELECTRICAL POWER, CABLE TV AND FIBER OPTIC LINES ARE APPROXIMATE. THE CITY OF ANN ARBOR ASSUMES NO RESPONSIBILITY FOR THEIR ACCURATE REPRESENTATION IN THIS DRAWING. MISS DIG MUST BE CONTACTED PRIOR TO CONSTRUCTION TO LOCATE THESE UTILITIES.

THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE PERFORMED IN ACCORDANCE WITH THE MICHIGAN DEPARTMENT OF TRANSPORTATION 2012 STANDARD SPECIFICATIONS FOR CONSTRUCTION (INCLUDING REFERENCED M.D.O.T. PUBLICATIONS) AND THIS PROJECT'S CONTRACT DOCUMENTS.

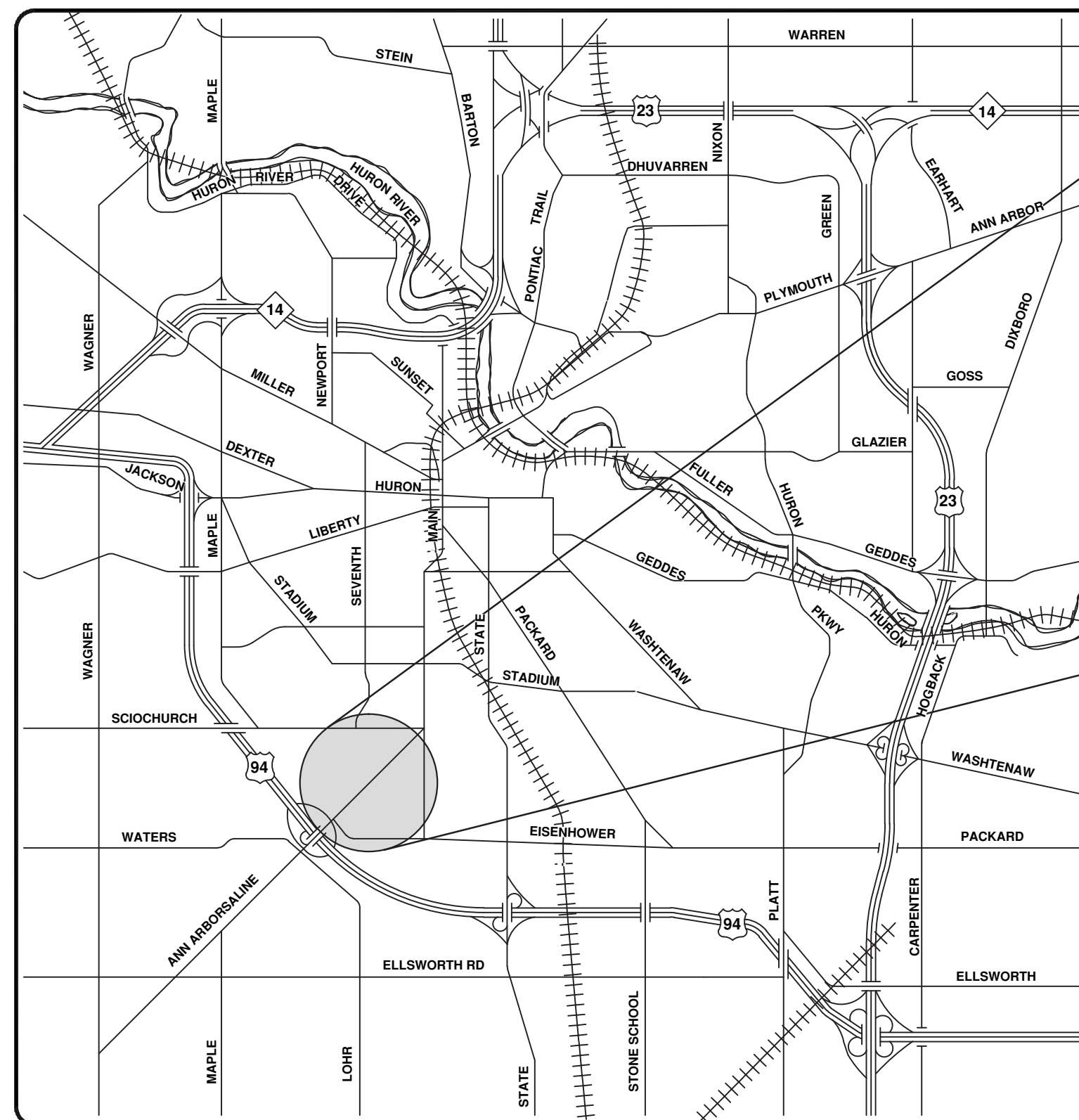
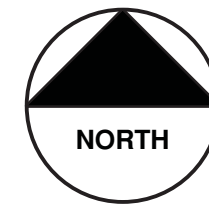
THE PROPOSED IMPROVEMENTS COVERED BY THESE PLANS ARE DESIGNED IN ACCORDANCE WITH THE 2004 A.A.S.H.T.O. "A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS", 2012 A.A.S.H.T.O. "GUIDE FOR PLANNING, DESIGN, AND OPERATION OF BICYCLE FACILITIES", AND THE TRAFFIC CONTROL IN ACCORDANCE WITH THE 2011 "MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".

SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	STANDARD NOTES & LEGEND
3	DETAILS
4	ROAD PLAN
5	GRADES
6	PAVEMENT MARKINGS

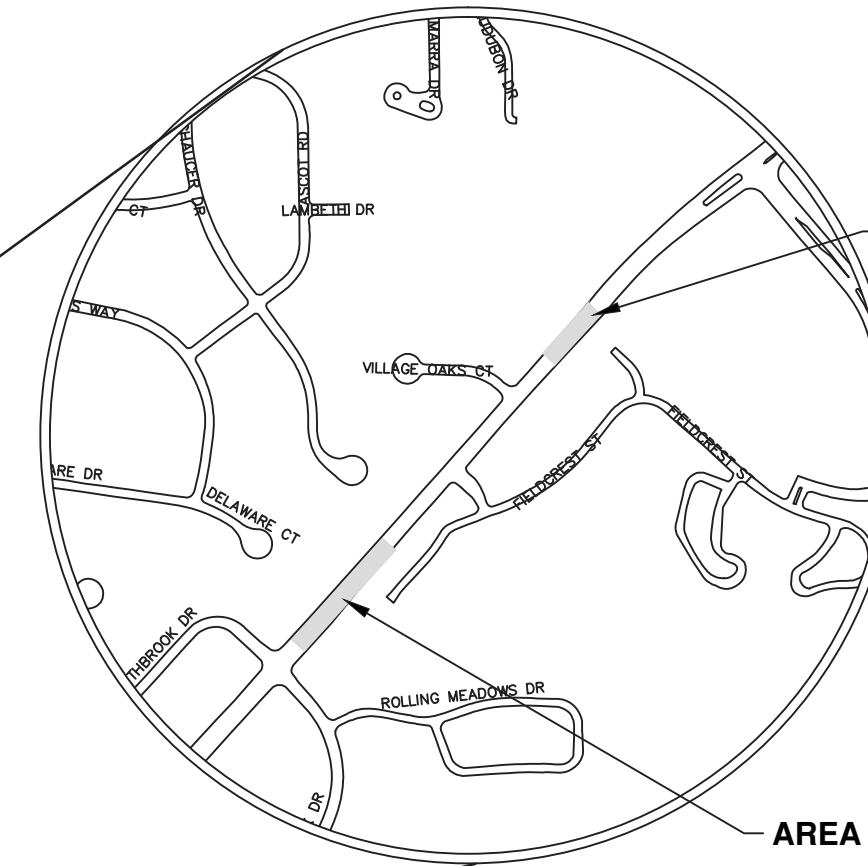
TRAFFIC DATA	
2015 ANNUAL DAILY TRAFFIC (ADT)	25,000
2035 ADT	28,300
2015 COMMERCIAL	2.00%
2035 COMMERCIAL	2.00%
POSTED SPEED	45 MPH
DESIGN SPEED	50 MPH

STANDARD PLANS		
CONSTRUCTION OF THE FOLLOWING ITEMS, WHERE CALLED FOR ON THE PLANS, WILL BE CONSTRUCTED ACCORDING TO MICHIGAN DEPARTMENT OF TRANSPORTATION STANDARD PLANS AS INDICATED.		
REQUIRED ON THIS PROJECT	ITEM OF WORK	STANDARD PLAN NUMBERS
X	SIDEWALK RAMP AND DETECTABLE WARNING DETAILS	R-28-I
X	SOIL EROSION & SEDIMENTATION CONTROL MEASURES	R-96-E
X	SEEDING AND TREE PLANTING	R-100-H
TRAFFIC AND SAFETY STANDARD PLANS		
X	TEMPORARY TRAFFIC CONTROL DEVICES	*WZD-125-E
X	GROUND DRIVEN SIGN SUPPORTS FOR TEMP SIGNS	*WZD-100-A
X	RECTANGULAR RAPID FLASHING BEACON	*SIG-027-B

*DENOTES SPECIAL DETAIL INCLUDED IN PROPOSAL



VICINITY MAP



AREA OF CONSTRUCTION

AREA OF CONSTRUCTION

CONTRACT FOR:

TWO MID-BLOCK RRFB SIGNALIZED PEDESTRIAN CROSSINGS.

PROJECT MANAGEMENT SERVICE UNIT

PREPARED UNDER THE SUPERVISION OF

David Arthur Dykman
DAVID ARTHUR DYKMAN, P.E. - MI LICENSE No. 52912
PROJECT MANAGER

April 12, 2015
DATE

811
Know what's below. Call before you dig.

02	BID SET - REVISED	4-12-2015	DAD	DAD	CHECKED
01	BID SET	3-20-2015	ES	ES	DRAWN
00	C.I. SUBMITTAL	1-15-15			

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
ANN ARBOR, MI 48106-0647
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CITY OF ANN ARBOR MICHIGAN

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

PROJECT DESCRIPTION AND LIMITS

SCALE: SHEET No. 1 OF 6

DRAWING No. 2014037-1

GENERAL NOTES:

1. Driveways and entrances to buildings, real property, and the like shall not be blocked except for short durations and only when approved by the Engineer. Vehicular and pedestrian access shall be maintained at all times. It shall be the Contractor's responsibility to coordinate all necessary driveway closures with the property owner(s) and resident(s) in the areas of construction.
2. The location of material stock piles and on-site staging areas shall be approved by the Engineer.
3. Existing street name signs, guide, bus stop, and regulatory signs which conflict with the proposed construction shall be removed prior to construction, stored in a manner which will prevent damage, and re-set in locations as directed by the Engineer. This work will not be paid for separately.
4. All curb, sidewalk, driveway approach removals shall be approved by the Engineer before the work is performed.
5. Place 4" (minimum) thickness Class II Granular Material compacted to 95% of its max. dry density under concrete sidewalk as shown on the details. This work shall be included in the contract items "Sidewalk, Conc, 4 inch, Modified, Sidewalk, Conc, 6 inch, and Sidewalk Ramp, Conc, 6 inch, Modified."
6. A uniform coat(s) of curing compound shall be applied according to the Standard Specifications and Special Provisions regardless of the difficulty involved. The Contractor shall take care to prevent overspray when applying curing compound. Several different methods may need to be developed to protect various situations, but all methods used to prevent overspray of the curing compound shall be completely effective. Methods used shall be approved by the Engineer prior to use, however approval of a method does not guarantee success or acceptability. No additional compensation shall be made for complying with these requirements.

GENERAL

NOTIFY THE CITY OF ANN ARBOR SOIL EROSION CONTROL OFFICE 48 HOURS PRIOR TO BEGINNING WORK ON THE PROJECT. PHONE: 734-794-6265.

1. THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN THE SOIL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER AT ALL TIMES DURING CONSTRUCTION. ANY MODIFICATIONS OR ADDITIONS TO THE SOIL EROSION CONTROL MEASURES DUE TO CONSTRUCTION OR CHANGED CONDITIONS SHALL BE AS DIRECTED AND APPROVED BY THE ENGINEER.
2. ALL SOIL EROSION AND SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE PERMIT REQUIREMENTS OF THE CITY OF ANN ARBOR, CITY ORDINANCE CHAPTER 63, CITY OF ANN ARBOR STANDARDS DIVISION VII, THE LAWS OF THE STATE OF MICHIGAN, AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
3. DAILY, OR AFTER ANY STORM EVENT, INSPECTIONS OF EROSION CONTROL MEASURES SHALL BE MADE BY THE CONTRACTOR. PERIODIC INSPECTIONS MAY BE MADE BY THE ENGINEER TO DETERMINE THE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES. ANY NECESSARY CORRECTIONS SHALL BE MADE WITHOUT DELAY, AND WITHOUT ADDITIONAL COST TO THE CITY OF ANN ARBOR.
4. EROSION AND SEDIMENTATION FROM WORK ON THE SITE SHALL BE CONTAINED ON THE SITE AND NOT BE ALLOWED TO COLLECT ON ANY OFF-SITE AREAS, ROADWAYS OR WATERWAYS.
5. ALL MUD/DIRT TRACKED ONTO ROADWAYS FROM THE SITE DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR. IF SO ORDERED, THE CONTRACTOR SHALL PROVIDE AND OPERATE A VACUUM-TYPE STREET SWEEPER, AT NO ADDITIONAL COST TO THE CITY OF ANN ARBOR, WITHIN FOUR (4) HOURS OF BEING SO ORDERED.
6. RESTORATION OF ALL DISTURBED AREAS, INCLUDING PLACEMENT OF TOPSOIL, SEED, FERTILIZER AND MULCH AND/OR SOD SHALL BE PERFORMED WITHIN FIVE (5) DAYS OF THE COMPLETION OF FINAL GRADE.
7. CONSTRUCTION OPERATIONS SHALL BE SCHEDULED AND PERFORMED SO THAT PREVENTATIVE SOIL EROSION CONTROL MEASURES ARE IN PLACE PRIOR TO EXCAVATION IN CRITICAL AREAS AND TEMPORARY STABILIZATION MEASURES ARE IN PLACE IMMEDIATELY FOLLOWING BACKFILLING OPERATIONS.
8. SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT SITUATIONS THAT PROMOTE EROSION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND REMOVAL OF SOME MEASURES UPON AUTHORIZED COMPLETION OF THE PROJECT. FINAL COMPLETION OF PROJECT WILL NOT BE AUTHORIZED UNTIL ALL SITE WORK AND UTILITY CONSTRUCTION IS COMPLETE AND ALL SOILS ARE STABILIZED.
10. THE CONTRACTOR SHALL NOT GRADE INTO ADJACENT PROPERTIES. SILT AND PROTECTIVE FENCE SHALL BE INSTALLED AND MAINTAINED TO PREVENT GRADING, EROSION AND SEDIMENTATION INTO THE ADJACENT PROPERTIES.
11. TREE PROTECTION FENCING MUST REMAIN INTACT UNTIL RESTORATION OF THE SITE IS COMPLETE.

SEQUENCE OF EROSION CONTROL MEASURES:

1. THE CONTRACTOR IS TO SUBMIT TO THE ENGINEER, A SEQUENCE OF CONSTRUCTION WITH RESPECT TO THE SOIL EROSION CONTROL MEASURES FOR REVIEW, COMMENT AND APPROVAL. THIS SCHEDULE IS TO INCLUDE INSPECTION AND REPAIR OF ALL TEMPORARY EROSION CONTROL MEASURES DAILY AND WITHIN 24 HOURS OF A STORM EVENT.

SAMPLE SOIL EROSION AND SEDIMENTATION CONTROL INSTALLATION MINIMUM REQUIREMENTS:

- 1.1. INSTALL SILT FENCE, TREE PROTECTION FENCING, AND INLET FILTERS ON EXISTING DRAINAGE FEATURES PRIOR TO ANY CLEARING OR EARTH MOVING OPERATION.

BM #	ELEV	DESCRIPTION
1	908.471	Fnd RR Spike in E'ly side of utility pole on W. Side of Ann Arbor-Saline Rd. Pole is 2nd pole S. of Center Line of Northbrook.
2	899.420	N.W. anchor bolt on light pole @ S.W. corner of Ann Arbor-Saline Rd. & Oakbrook
3	895.144	Found chiseled "[]" on S.E. corner of S. end of headwall for drain crossing 200'± N. of Northbrook.
4	899.295	Set RR spike in E'ly side of utility pole on W. side of Ann Arbor-Saline Rd. Pole is 4th pole N. of Center Line of Northbrook.
5	912.367	Set RR spike in E'ly side of utility pole on W. side of Ann Arbor-Saline Rd. Pole is 1st pole S. of Center Line of Village Oaks Ct.
6	925.629	Fnd nail in E'ly side of utility pole on W. side of Ann Arbor-Saline Rd. Pole is 3rd pole N. of Center Line of Village Oaks Ct.
7	927.197	Steamer valve on hydrant on W. side of Ann Arbor-Saline Rd. opposite entrance drive for shopping center.
8	932.244	Set RR spike in E'ly side of utility pole on W. side of Ann Arbor-Saline Rd. Pole is in front of "Brookhaven Place Retirement Home."

PERMITS REQUIRED TO BE OBTAINED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION.	
PERMIT	ISSUING AUTHORITY
LANE CLOSURE PERMIT	CITY OF ANN ARBOR PROJECT MANAGEMENT UNIT (734) 794-6410
GRADING/SOIL EROSION & SEDIMENTATION CONTROL PERMIT	CITY OF ANN ARBOR CUSTOMER SERVICE (734) 794-6320
RIGHT-OF-WAY PERMIT	CITY OF ANN ARBOR CUSTOMER SERVICE (734) 794-6320
* NO COST TO CONTRACTOR	

CONTACT INFORMATION		
PUBLIC UTILITIES	OWNER	CONTACT
WATER		DAN WOODEN (734) 794-6350
SANITARY		MARK COZART (734) 794-6350
STORM	CITY OF ANN ARBOR FIELD OPERATIONS SERVICE UNIT W.R. WHEELER SERVICE CENTER 4251 STONE SCHOOL ROAD ANN ARBOR, MI 48108	KEVIN ERNST (734) 794-6350
FORESTRY		STEVEN GOEBEL (734) 794-6350
SIGNS SIGNALS STREET LIGHTS		CHUCK FOJTIK (734) 794-6361
PRIVATE UTILITIES	OWNER	CONTACT
GAS	DTE ENERGY 3150 E. MICHIGAN AVE, YPSILANTI TOWNSHIP, MI 48198	ROBERT CZAPIEWSKI (734) 544-7818
ELECTRIC	DTE ENERGY WESTERN WAYNE SERVICE CENTER 8001 HAGGERTY ROAD BELLEVILLE, MI 48111	CLAY COMBEE (734) 397-4112
CABLE	COMCAST 27800 FRANKLIN ROAD SOUTHFIELD, MI 48034	RON SUTHERLAND (313) 999-8300
PHONE	AT&T 550 S. MAPLE ROAD ANN ARBOR, MI 48103	(734) 996-2135
FIBER OPTIC	MCI 2800 N. GLENFILLE ROAD RICHARDSON, TX 75082	DEAN BOYERS (972) 729-6016

EXISTING LEGEND

	FIRE HYDRANT		WATER MAIN
	GATE VALVE IN BOX		STORM SEWER
	GATE VALVE IN WELL		SANITARY SEWER
	STOP BOX		GAS MAIN
	WATER VAULT		ELECTRICAL OVER HEAD
	WELL		ELECTRICAL UNDER GROUND
	CATCH BASIN (SQ)		BOUNDARY
	CATCH BASIN (RD)		BUILDING
	STORM MANHOLE		CENTERLINE OF DITCH
	NON-CURB CATCH BASIN (SQ)		CENTERLINE/CROWN OF ROAD
	SANITARY MANHOLE		EDGE OF WATER
	CLEAN-OUT		FENCE
	POST		GRAVEL
	PEDESTRIAN SIGNAL		STONE WALL
	SIGN		R.O.W.
	HAND HOLE		TREE LINE
	ORNAMENTAL LIGHT		WETLAND
	FLOOD LIGHT		TREE (DECIDUOUS)
	UNKNOWN MANHOLE		TREE (CONIFEROUS)
	TELEPHONE MANHOLE		STUMP
	TELEPHONE RISER		SHRUB (DECIDUOUS)
	GAS VALVE		
	GAS VENT		
	GAS BOX		
	ELECTRICAL RISER		
	TRANSFORMER		
	UTILITY POLE		
	LAMP POLE		
	GUY ANCHOR		
	GUY POLE		
	MONITORING WELL		
	MAILBOX		
	SOIL BORING		
	TRAVERSE POINT		
	BENCH MARK		
	IRON PIPE		
	MON BOX		

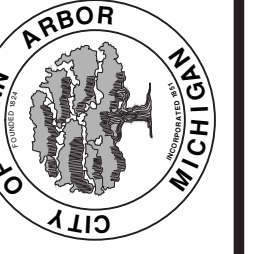
PROPOSED LEGEND

	HYDRANT (PLAN)		WATER MAIN
	WATER GATE WELL		STORM SEWER
	REDUCER		SANITARY SEWER
	WATER GATE VALVE		CENTERLINE OF DITCH
	WATER STOP BOX		CENTERLINE OF ROAD
	WATER VAULT		FENCE
	INLET		SILT FENCE
	DOUBLE INLET		LOT/UNIT
	INLET JUNCTION CHAMBER		CURB
	ROUND CATCH BASIN		TEMPORARY GRADING PERMIT
	STORM MANHOLE		WATER EASEMENT
	DRAIN ARROW		STORM EASEMENT
	FLARED END SECTION		SANITARY EASEMENT
	SANITARY MANHOLE		R.O.W.
	CLEAN-OUT		LIMITS OF CONSTRUCTION
	BARREL		STONE WALL
	SIGN		DETECTABLE WARNING
	PUSH BUTTON		ASPHALT
			CONCRETE
			SIDEWALK
			TREE (DECIDUOUS)
			TREE (CONIFEROUS)



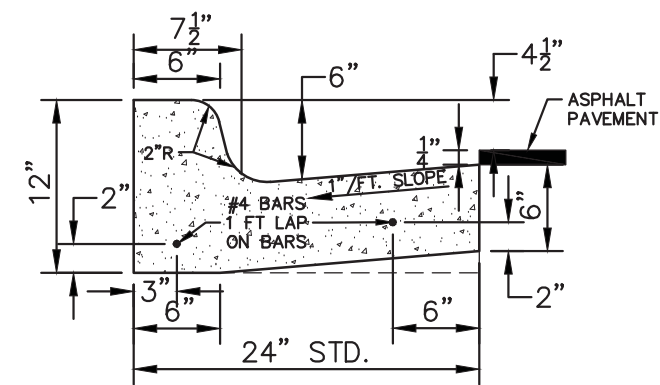
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4-12-2015	BID SET - REVISED
3-20-2015	BID SET
1-15-15	C.I. SUBMITTAL
	DRAWN
	CHECKED

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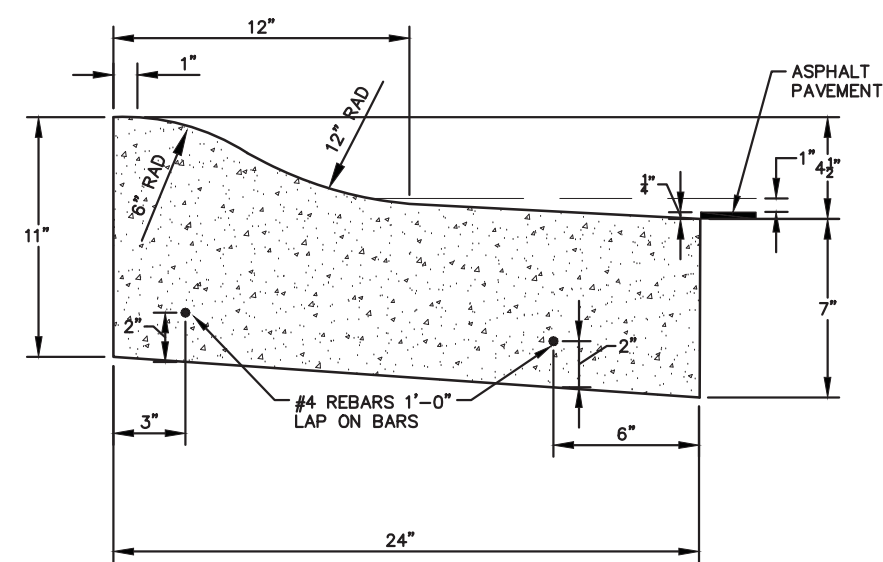


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
ANN ARBOR-SALINE ROAD PED CROSSINGS
SCALE: N/A
DRAWING No. 2014037-2

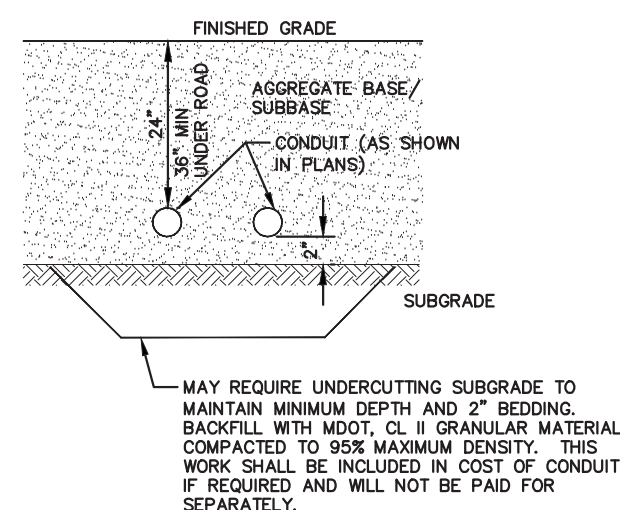
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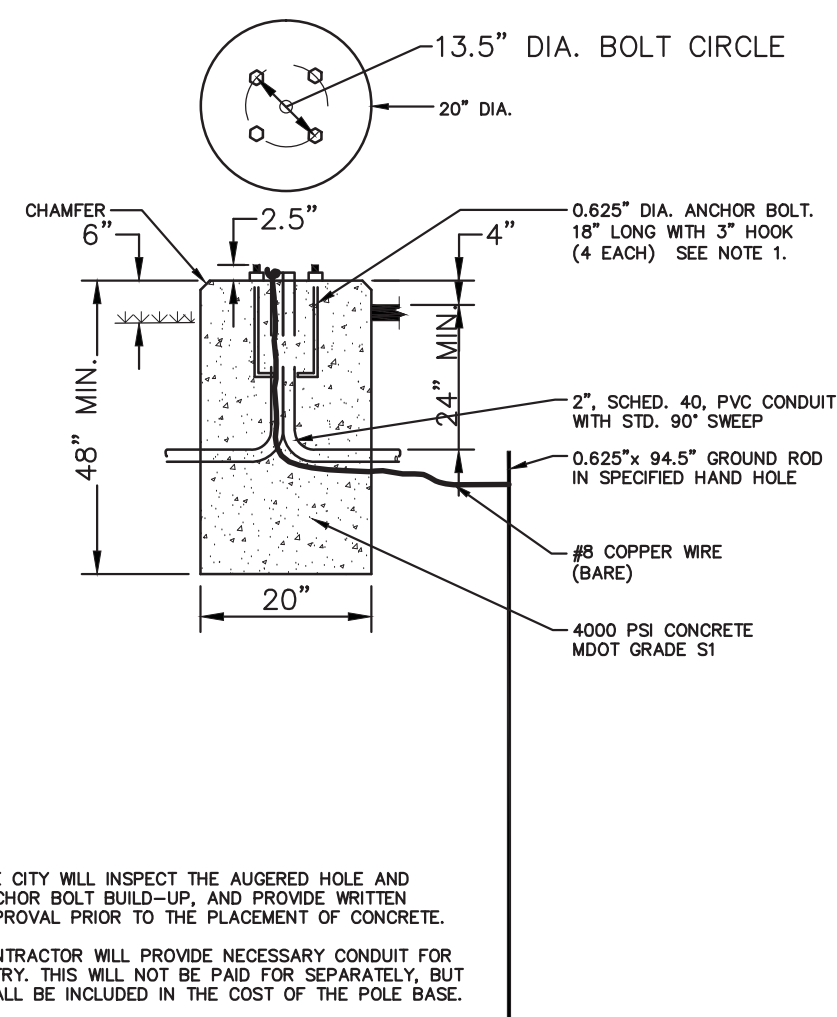
BARRIER CURB AND GUTTER SD-R-1



SPILL-OUT MOUNTABLE CURB & GUTTER SD-R-4



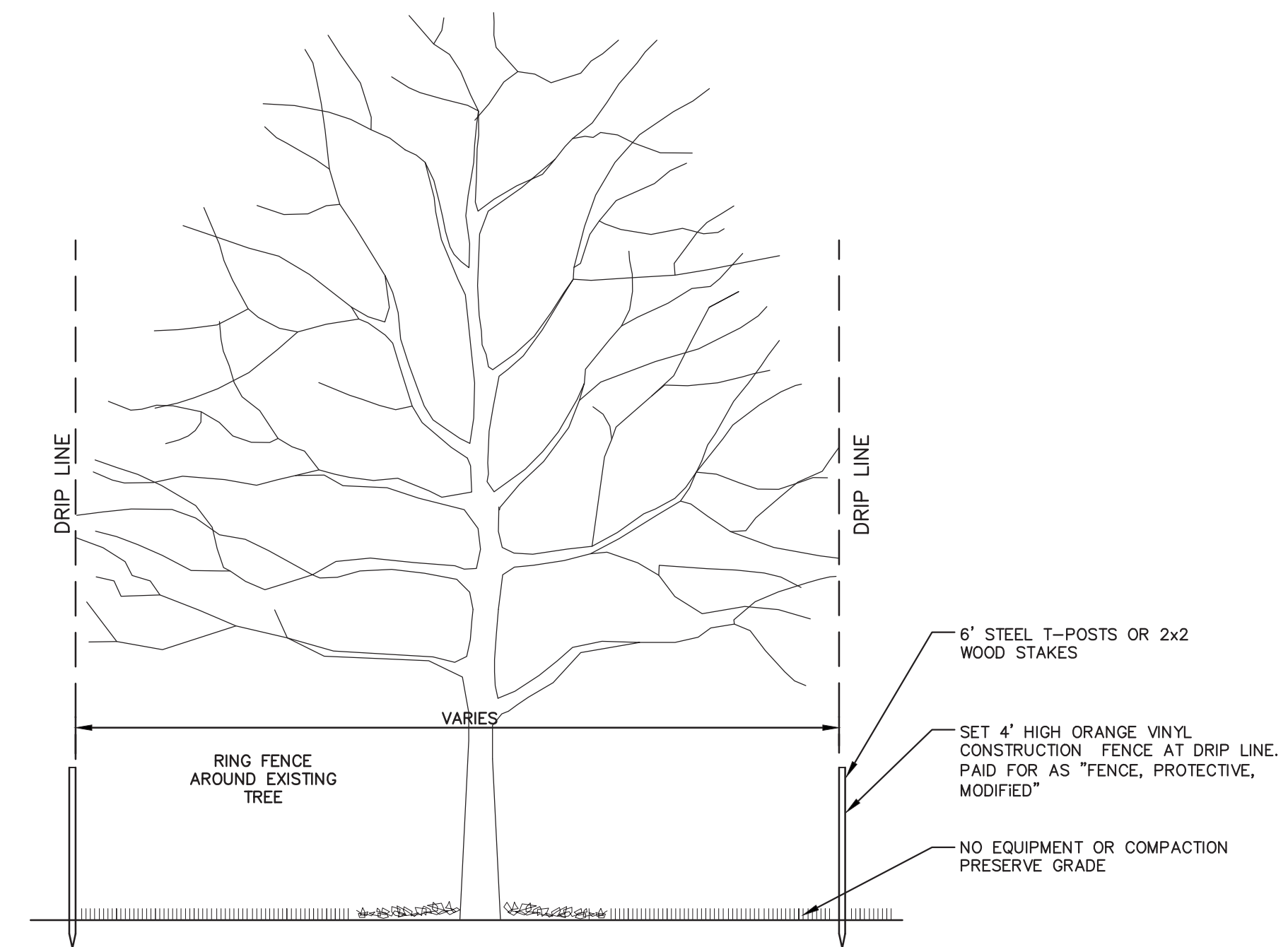
CONDUIT PLACEMENT DETAIL



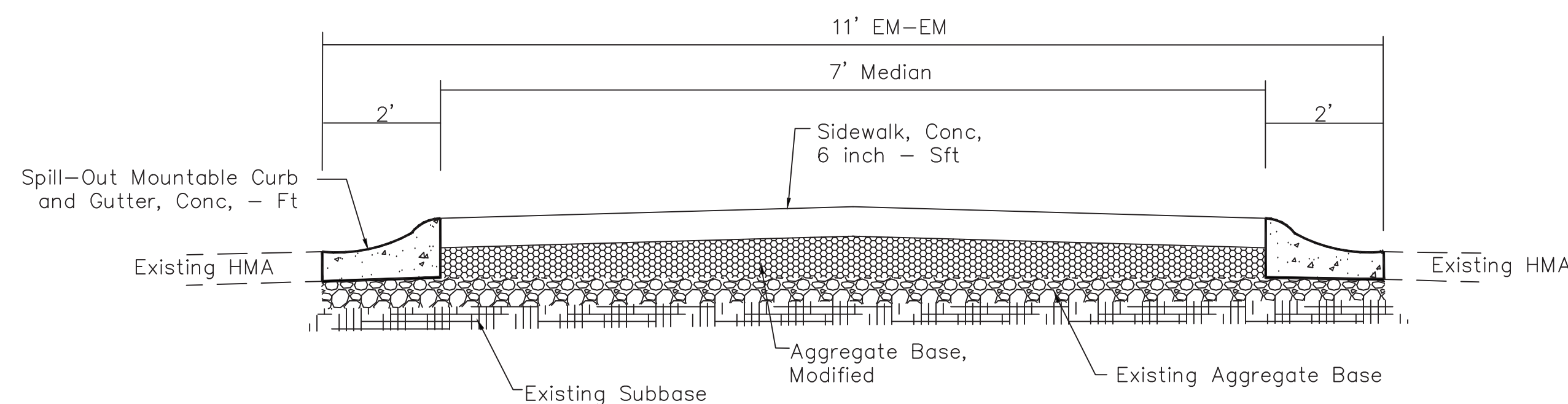
NOTES:

1. THE CITY WILL INSPECT THE AUGERED HOLE AND ANCHOR BOLT BUILD-UP, AND PROVIDE WRITTEN APPROVAL PRIOR TO THE PLACEMENT OF CONCRETE.
2. CONTRACTOR WILL PROVIDE NECESSARY CONDUIT FOR ENTRY. THIS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF THE POLE BASE.

PEDESTRIAN SIGNAL POLE FOUNDATION SD-SL-3



TREE PROTECTION DETAIL



PEDESTRIAN ISLAND SECTION

NO SCALE



Know what's below. Call Before you dig.

REV.	DATE	DESCRIPTION
02	4-12-2015	BID SET - REVISED
01	3-20-2015	BID SET
00	1-15-15	C.I. SUBMITTAL

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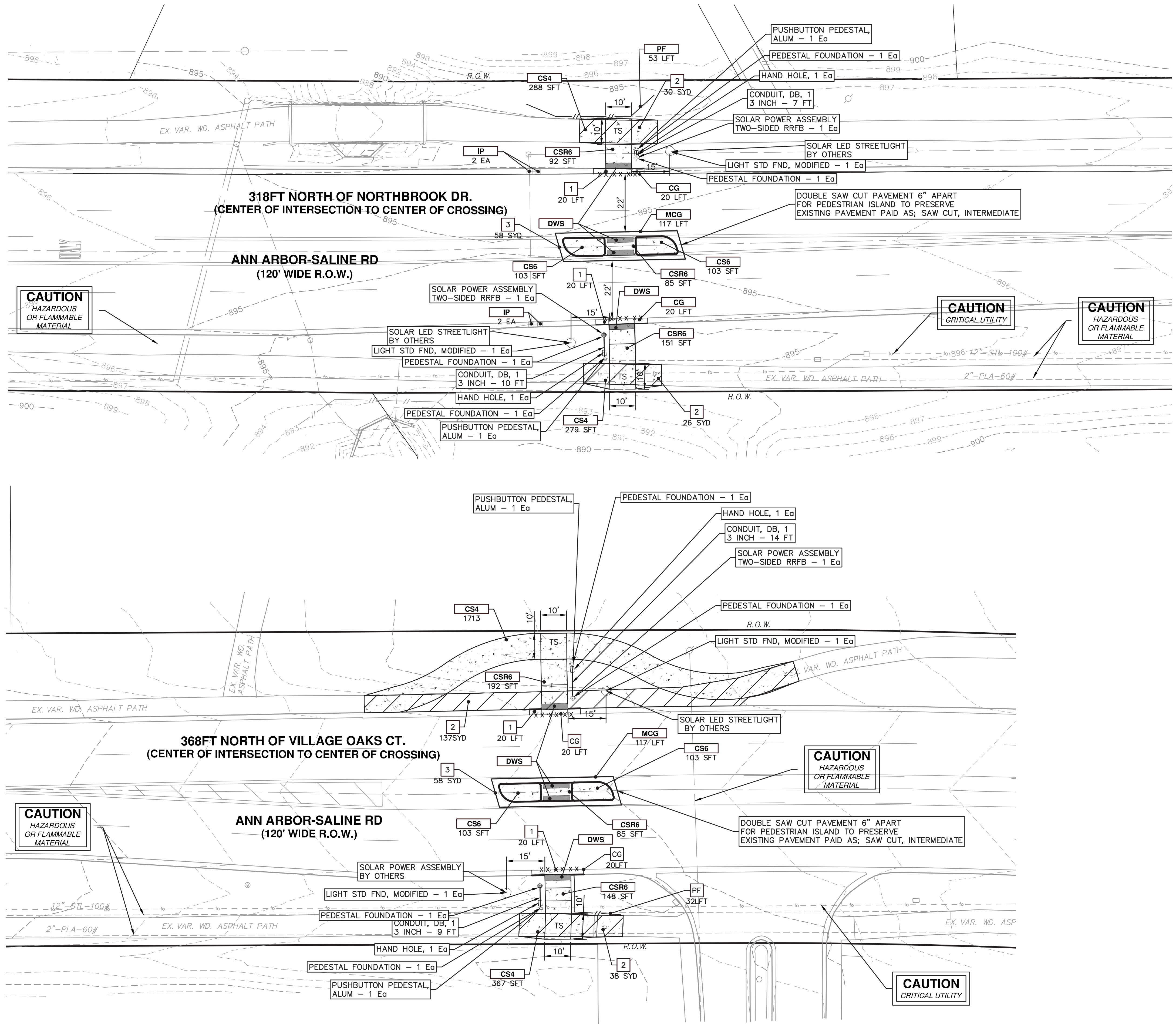


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
ANN ARBOR-SALINE ROAD PED CROSSINGS
DETAILS

SCALE: N/A
DRAWING No. 2014037-3

SHEET No.

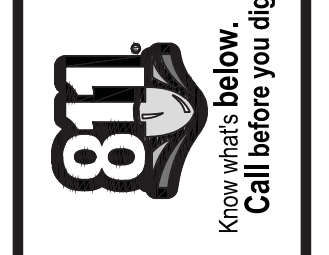
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SESC MEASURES KEY	
KEY	DESCRIPTION
PF	INSTALL PROTECTIVE FENCING
IP	INSTALL INLET FILTER
SF	SILT FENCE

REMOVAL KEY	
KEY	DESCRIPTION
1	CURB AND GUTTER, REM
2	SIDEWALK, REM
3	HMA SURFACE REMOVAL - ANY THICKNESS, SAWOUT FULL DEPTH AT REMOVAL LIMITS

CONSTRUCTION KEY	
KEY	DESCRIPTION
CG	PLACE BARRIER CURB AND GUTTER, CONC
MCG	PLACE SPILL-OUT MOUNTABLE CURB AND GUTTER, CONC
CS4	PLACE SIDEWALK, CONC, 4 INCH, MODIFIED
CS6	PLACE SIDEWALK, CONC, 6 INCH, MODIFIED
CSR6	PLACE SIDEWALK RAMP, CONC, 6 INCH, MODIFIED
DWS	DETECTABLE WARNING SURFACE, MODIFIED



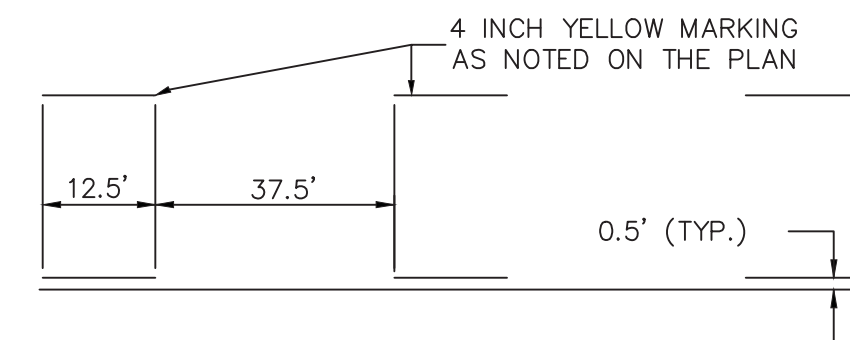
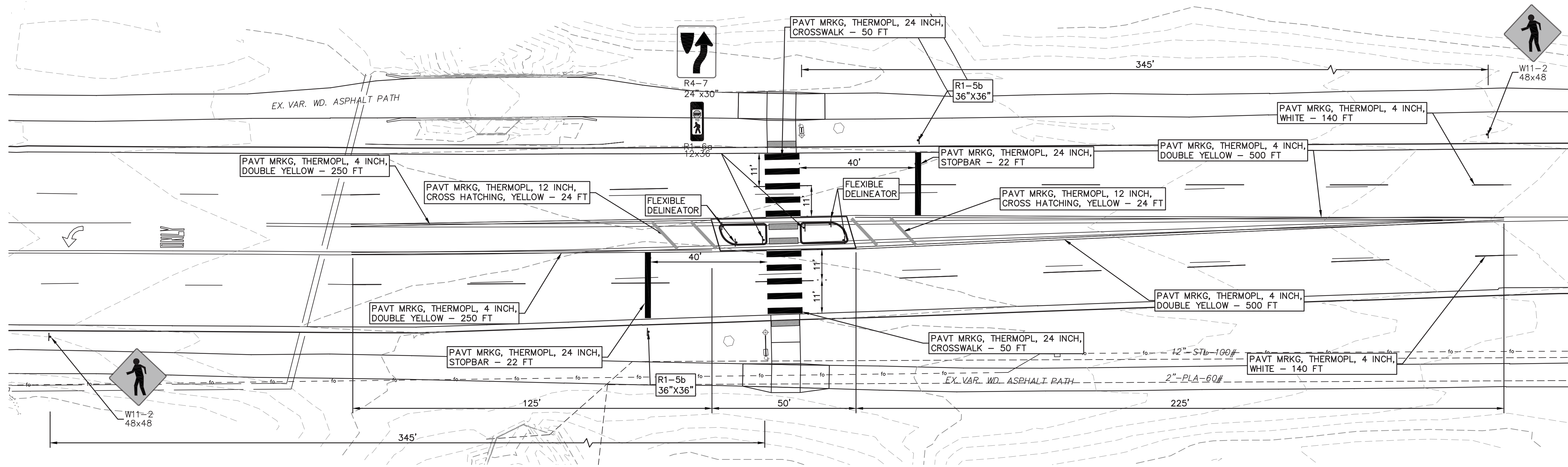
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02	4-12-2015	DAD	DAD	BID SET - REVISED
01	3-20-2015	ES	ES	BID SET
00	1-15-15			C.I. SUBMITTAL

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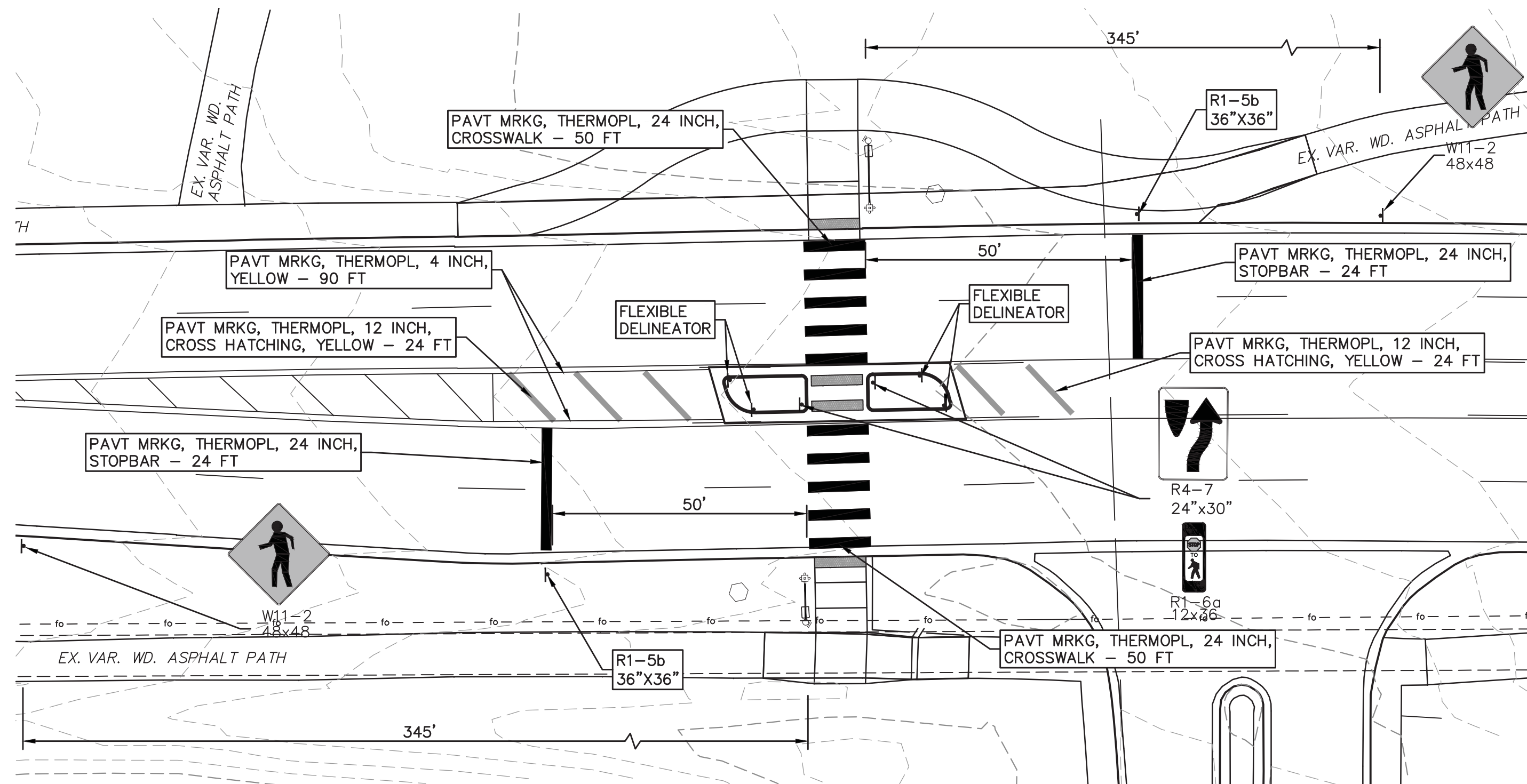


PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 ANN ARBOR-SALINE ROAD PED CROSSINGS
 ROAD PLAN
 SCALE PLAN: 1" = 20'
 DRAWING No. 2014037-4
 SHEET No.

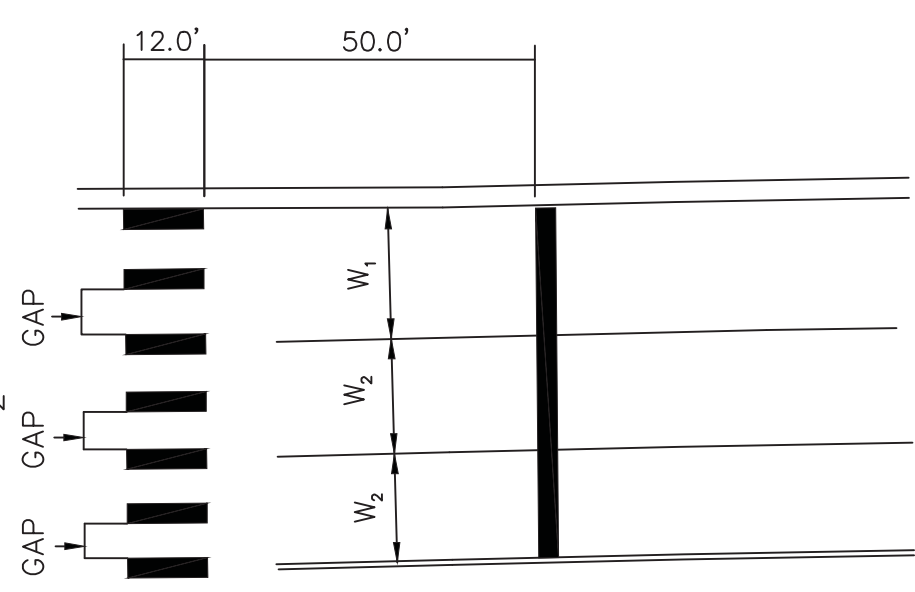
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**DASHED SEGMENT
DETAIL**

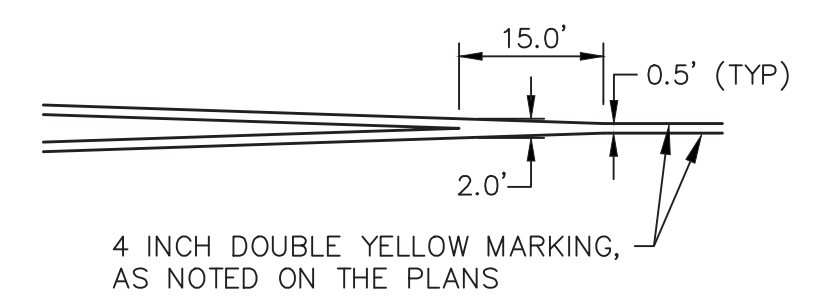


GAP FORMULA:
 $\frac{W}{2} - 4.0'$



ONE BAR CENTERED ON EACH LANE LINE
ONE BAR CENTERED BETWEEN EACH LANE LINE
GAP ON 12.0' LANE = 4.0'
GAP ON 11.0' LANE = 3.5'

**CROSSWALK
DETAIL**

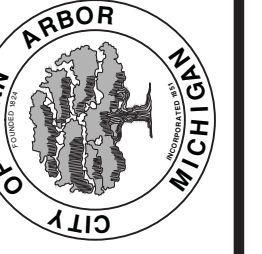


TYPICAL DOUBLE YELLOW SEPARATION DETAIL



REV.	DATE	DESCRIPTION	DRAWN	CHECKED
02	4-12-2015	BID SET - REVISED	DAD	DAD
01	3-20-2015	BID SET	ES	ES
00	1-15-15	C.I. SUBMITTAL	DATE	DRAWN

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
ANN ARBOR-SALINE ROAD PED CROSSINGS
PAVEMENT MARKINGS

SCALE PLAN: 1" = 20'
DRAWING No. 2014037-6