



CITY OF ANN ARBOR PROJECT MANAGEMENT

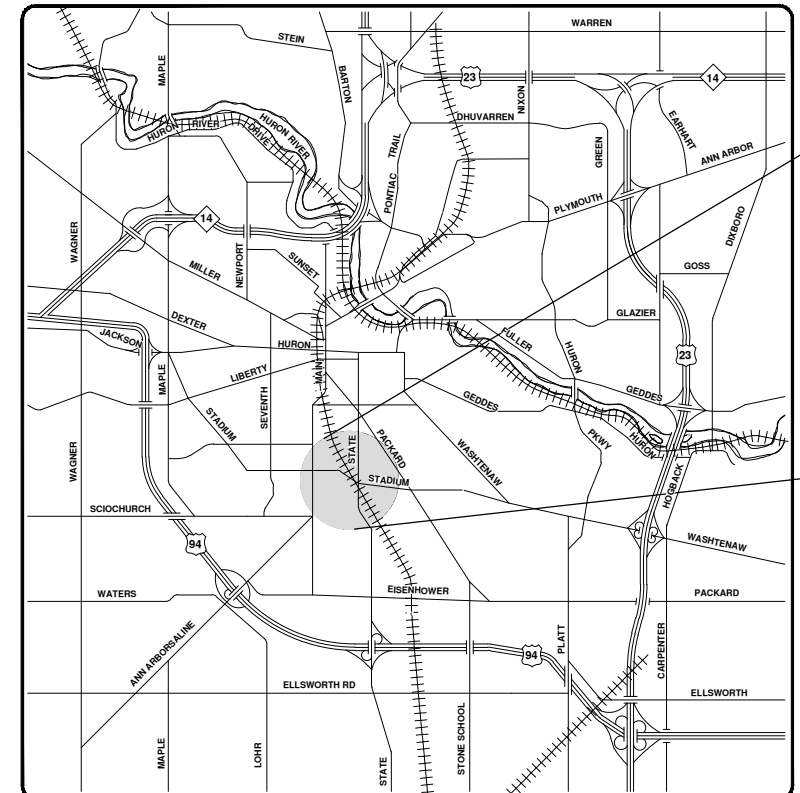
EAST STADIUM BOULEVARD BRIDGE DECK SEALING PROJECT

ITB No. 4453, FILE No. 2016-014

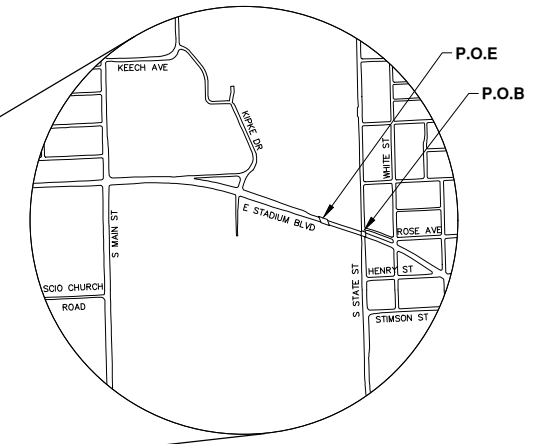
SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
1	COVER SHEET
2	STATE STREET BRIDGE - GENERAL PLAN OF SITE
3 - 4	STATE STREET BRIDGE - GENERAL PLAN OF STRUCTURE
5	ANN ARBOR RAILROAD BRIDGE - GENERAL PLAN OF SITE
6 - 7	ANN ARBOR RAILROAD BRIDGE - GENERAL PLAN OF STRUCTURE
8 - 11	MAINTENANCE OF TRAFFIC

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
RIGHT-OF-WAY PERMIT*	CITY OF ANN ARBOR CUSTOMER SERVICE
* NO COST TO CONTRACTOR	

CONTACT INFORMATION		
PUBLIC UTILITIES	OWNER	CONTACT
WATER	CITY OF ANN ARBOR FIELD OPERATIONS SERVICE UNIT W.R. WHEELER SERVICE CENTER 4251 STONE SCHOOL ROAD ANN ARBOR, MI 48108	DAN WOODEN (734) 794-6350
SANITARY		MARK COZART (734) 794-6350
STORM		MATT WALDSMITH (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 HAGERTY 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



VICINITY MAP



PROJECT MANAGEMENT SERVICE UNIT

PREPARED UNDER THE SUPERVISION OF

Michael G. Nearing, P.E.
MICHAEL G. NEARING, P.E. MI LICENSE No. 38748
SENIOR PROJECT MANAGER

1 / 2016
DATE

S:\Project Management\General\2006-045 E. Stadium Bridges\Crack Filling\Cover Sheet.dwg - _a2 standard bw.stb - Plot Date: 7/18/2016 8:49:39 AM

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

REV.	DESCRIPTION	DATE	DRAWN	CHECKED
00	PLAN REVIEW	7-13-16	DFF	MCN

CITY OF ANN ARBOR PUBLIC SERVICES 301 EAST HURON STREET ANN ARBOR, MI 48107-8647 www.a2gov.org

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

PROJECT DESCRIPTION AND LIMITS

SCALE

DRAWING No. 2016-014

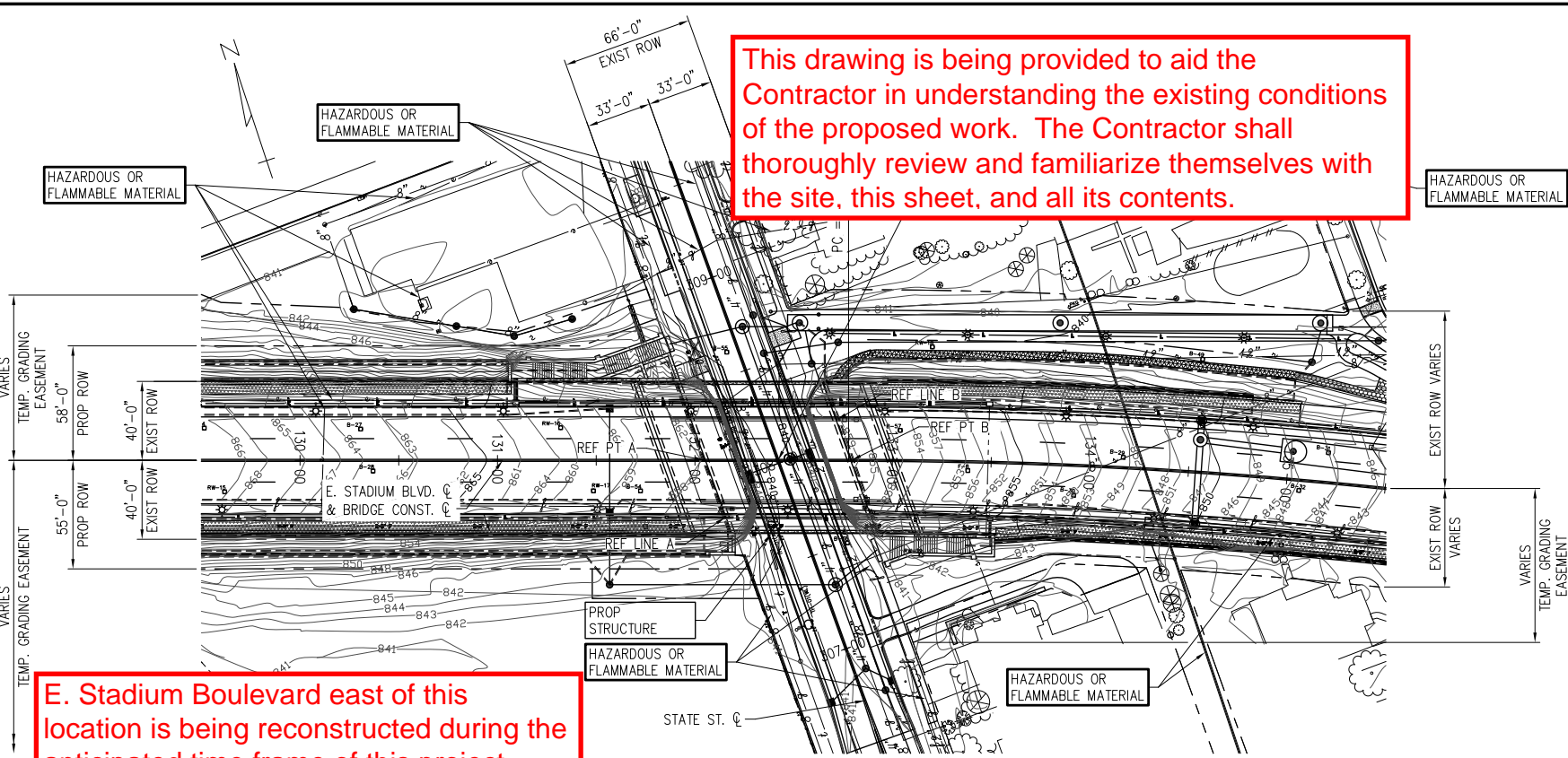
SHEET No. 1 OF 11

© EAST STADIUM BOULEVARD BRIDGE DECK SEALING PROJECT; ITB No. 4453; 2016-014

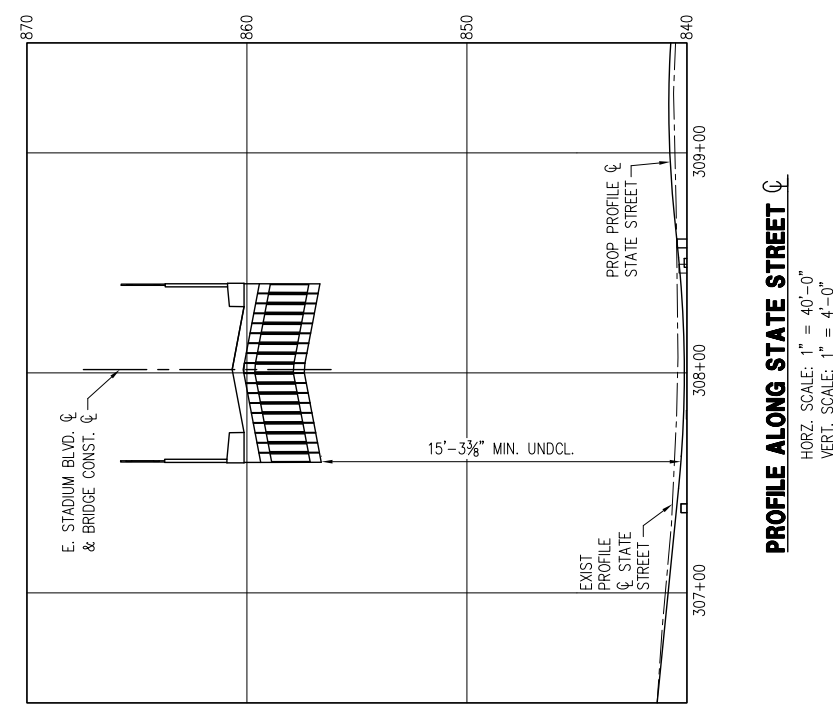
UTILITIES SEE ROAD PLANS
 WITNESSES SEE ROAD PLANS
 BENCHMARKS SEE ROAD PLANS

EXISTING STRUCTURE
 THE EXISTING STRUCTURE IS A SINGLE SPAN, PRESTRESSED CONCRETE BOX BEAM BRIDGE. IT PROVIDES 40'-0" OF CLEAR ROADWAY. IT SPANS 45'-3 3/8". IT WAS ORIGINALLY BUILT IN 1928 AND WAS DESIGNED FOR HS15 LOADING. IT WAS REHABILITATED IN 1975 AND WAS REDESIGNED FOR HS20 LOADING. FIVE BEAMS WERE REMOVED IN NOVEMBER 2009.

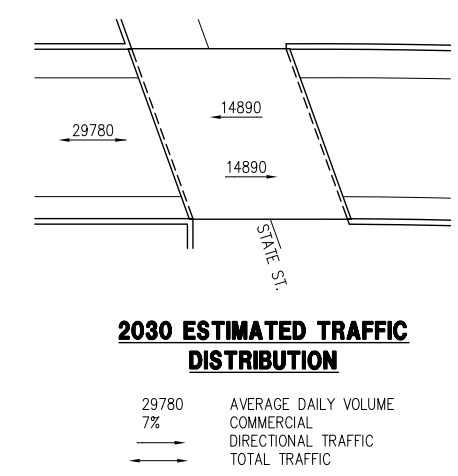
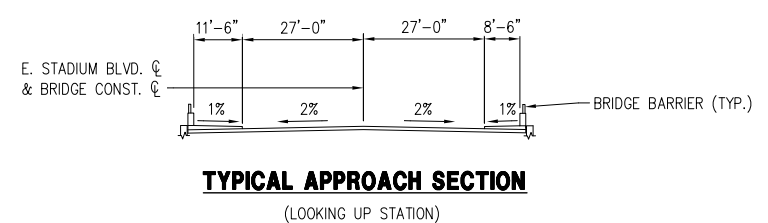
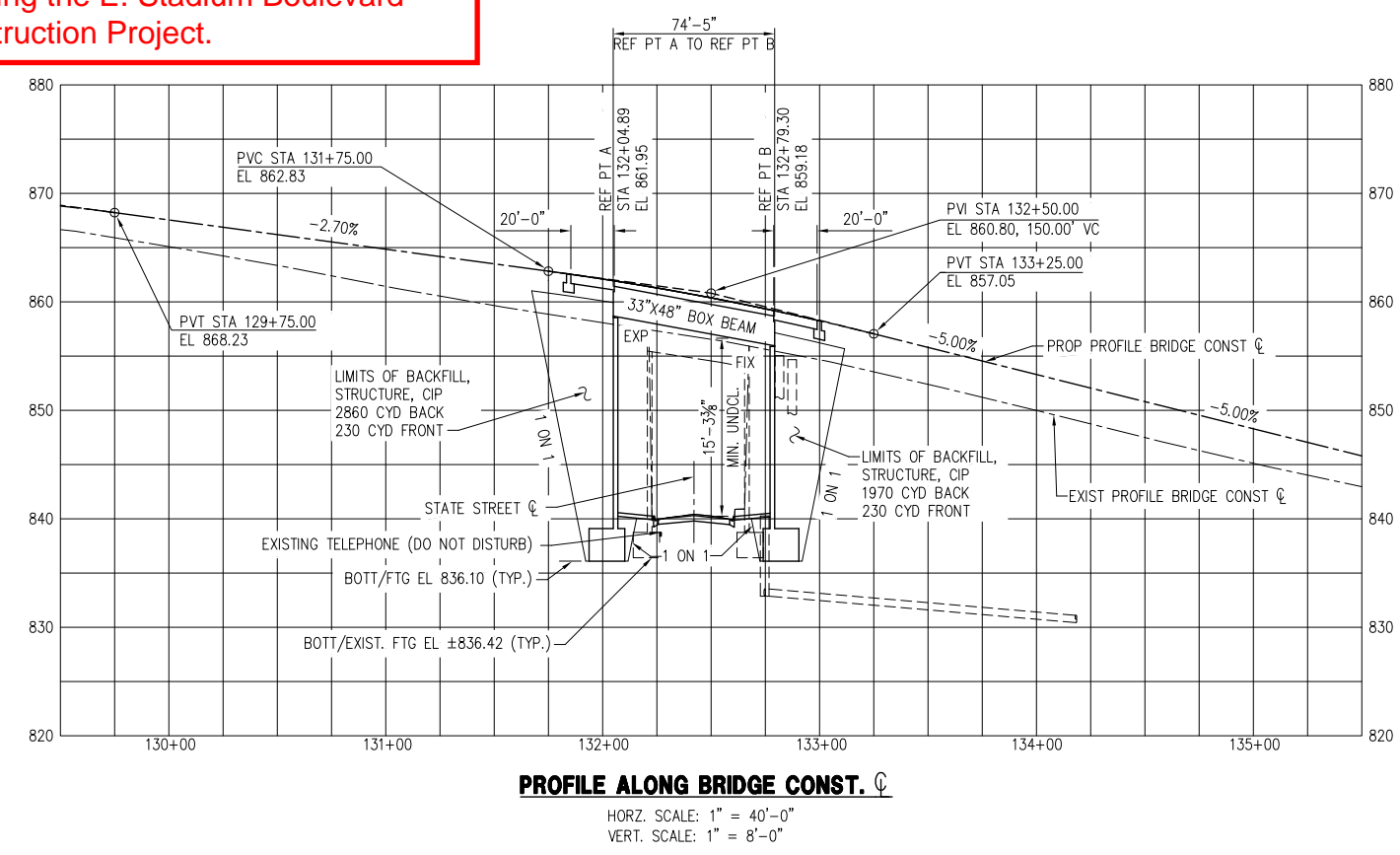
This drawing is being provided to aid the Contractor in understanding the existing conditions of the proposed work. The Contractor shall thoroughly review and familiarize themselves with the site, this sheet, and all its contents.



E. Stadium Boulevard east of this location is being reconstructed during the anticipated time frame of this project. The Contractor shall coordinate the work of this project with that of the Contractor performing the E. Stadium Boulevard Reconstruction Project.



3 WORKING DAYS BEFORE YOU DIG
 CALL MISS DIG
 800-482-7171
 (TOLL FREE)



NOTES:
 THE WORK COVERED BY THESE PLANS INCLUDES REMOVAL OF THE EXISTING BRIDGE AND CONSTRUCTION OF THE PROPOSED BRIDGE. ALL OTHER WORK IS INCLUDED IN THE ROAD PLANS THAT ARE A PART OF THIS CONTRACT.
 THE CONTRACTOR SHALL LOCATE ALL ACTIVE UNDERGROUND UTILITIES PRIOR TO STARTING WORK AND SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED. ALL COSTS ASSOCIATED WITH COMPLYING WITH THESE REQUIREMENTS SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE BID ITEM "Mobilization, Max. _____".
 E. STADIUM BLVD. TRAFFIC IS TO BE DETOURED OVER OTHER EXISTING ROADS.
 MEASURES SHALL BE TAKEN TO PREVENT DEBRIS FROM FALLING FROM THE STRUCTURE. MEASURES EMPLOYED BY THE CONTRACTOR SHALL BE EFFECTIVE. ANY DEBRIS THAT FALLS SHALL BE PICKED UP BY THE CONTRACTOR IMMEDIATELY.

LEGEND

EXIST. FENCE	EXIST. UTILITY POLE & GUY	EXIST. ELECTRIC	PROP. POST TOP LIGHT	PROP. INTEGRAL CURB & GUTTER	PROP. MSE WALL
• CONTOUR	• FIRE HYDRANT ASSEMBLY	• RD. & GRADE	• STREET LIGHT & CONDUIT	• CONC. CURB & GUTTER	• REINF. CONC. PAVT.
• STORM SEWER & CAT. BAS.	• LIGHT POLE	• LEFT EDGE/RD. GRADE	• SANITARY SEWER & MANHOLE	• FENCE	• THICKENED HMA PAVT.
• WATER MAIN & VALVE-IN-MELL	• END SECTION	• RIGHT EDGE/RD. GRADE	• STORM SEWER & CAT. BAS.	• VEHICLE BARRIER RAILING	• AGGREGATE SURFACE
• WATER MAIN & VALVE-IN-BOX	• TELEPHONE	• CURB & GUTTER	• WATER MAIN W/F.H. ASSEM.	• CONCRETE SIDEWALK	• STONE WALL
• SANITARY SEWER & MANHOLE	• GAS LINE	• CURB & GUTTER (RELA)	• CONTOUR	• TRANSITION SECTION	• STONE SLOPE
	• CABLE T.V.	• RELOC. STREET LIGHT	• ROAD & GRADE	• FULL DEPTH TRENCH	

NCI NORTHWEST CONSULTANTS, INC.

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

E. STADIUM BLVD BRIDGES REPLACEMENT PROJECT
STATE STREET BRIDGE PLANS
GENERAL PLAN OF SITE

SCALE VARIES INCH 1

2016-014-BRS1
 2 of 11

REV. NO.	DESCRIPTION	DATE	DR.BY	CH.BY

APPROVED BY: _____

Apply penetrating healer/sealer over entire bridge deck.

MISCELLANEOUS QUANTITIES		
AMOUNT	UNIT	ITEM
7090	CYD	Excavation, Fdn
5306	CYD	Backfill, Structure, CIP
474	LS	Structure, Rem, State St
65	FT	Underdrain, Fdn, 6 inch
	SYD	Geotextile Separator

NOTES:
 THE DESIGN OF THIS STRUCTURE IS BASED ON 1.2 TIMES THE CURRENT AASHTO LRFD BRIDGE DESIGN SPECIFICATION HL-93 LOADING WITH THE EXCEPTION THAT THE DESIGN TANDEM PORTION OF THE HL-93 LOAD DEFINITION SHALL BE REPLACED BY A SINGLE 60 KIP AXLE LOAD BEFORE APPLICATION OF THIS 1.2 FACTOR. THE RESULTING LOAD IS DESIGNATED HL-93 MOD. LIVE LOAD PLUS DYNAMIC LOAD ALLOWANCE DEFLECTION DOES NOT EXCEED 1/1000 OF SPAN LENGTH AND 1/375 OF CANTILEVER ARM.

ALL EXPOSED CONCRETE CORNERS SHOWN SQUARE ON THE PLANS SHALL BE BEVELED WITH 3/4" TRIANGULAR MOLDINGS EXCEPT AS OTHERWISE NOTED.

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 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 PAYMENT SHALL BE MADE FOR COMPLYING WITH THESE REQUIREMENTS.

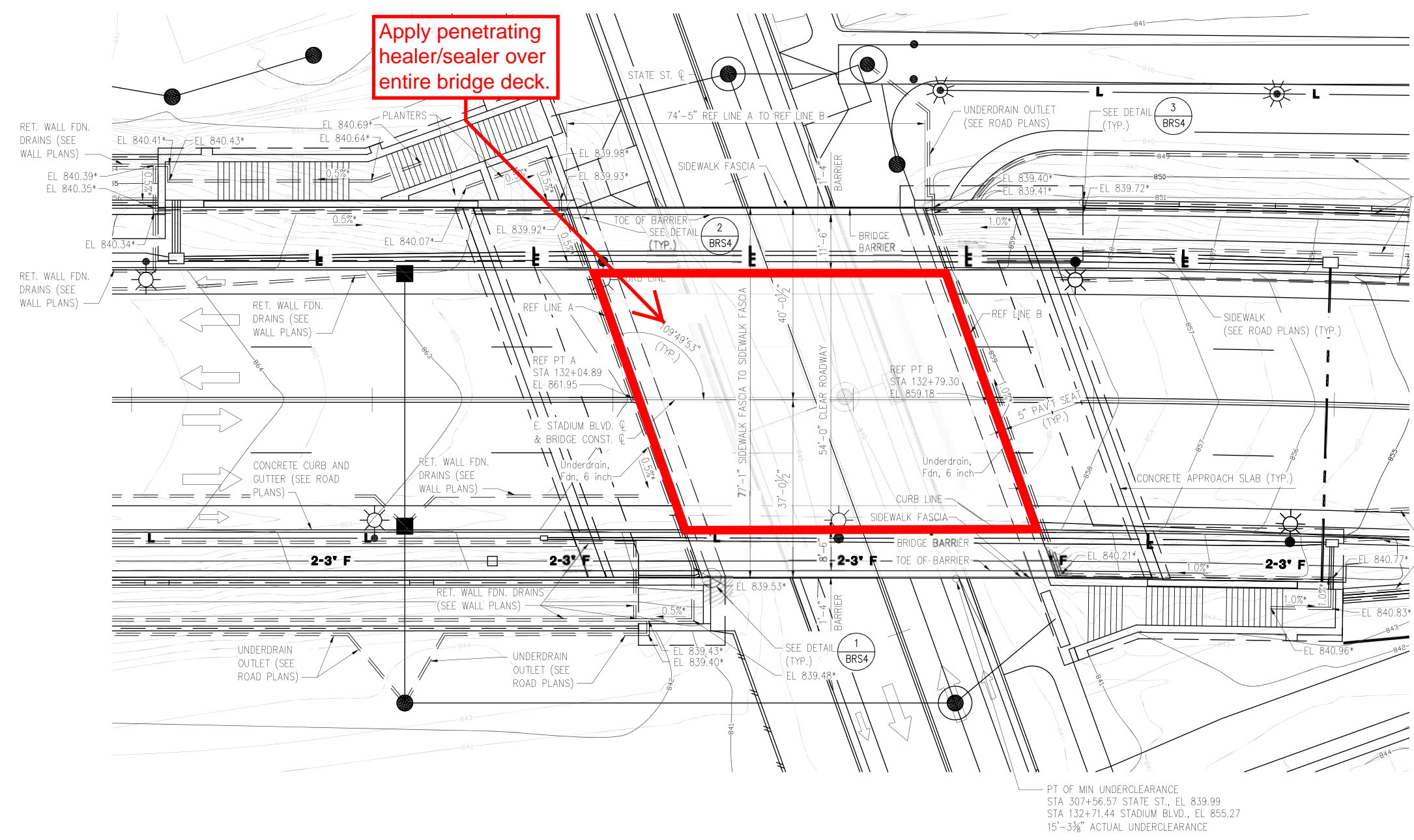
THE TOP OF ROADWAY SLAB AND TOPS OF SIDEWALK AND BRIDGE RAILINGS ARE PARALLEL TO THE VERTICAL CURVE.

THE CONTRACTOR SHALL PROVIDE ALL NEEDED FITTINGS AND TEES NEEDED TO INSTALL THE FOUNDATION UNDERDRAINS AND OUTLETS. THESE FITTINGS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE RESPECTIVE ITEMS OF WORK.

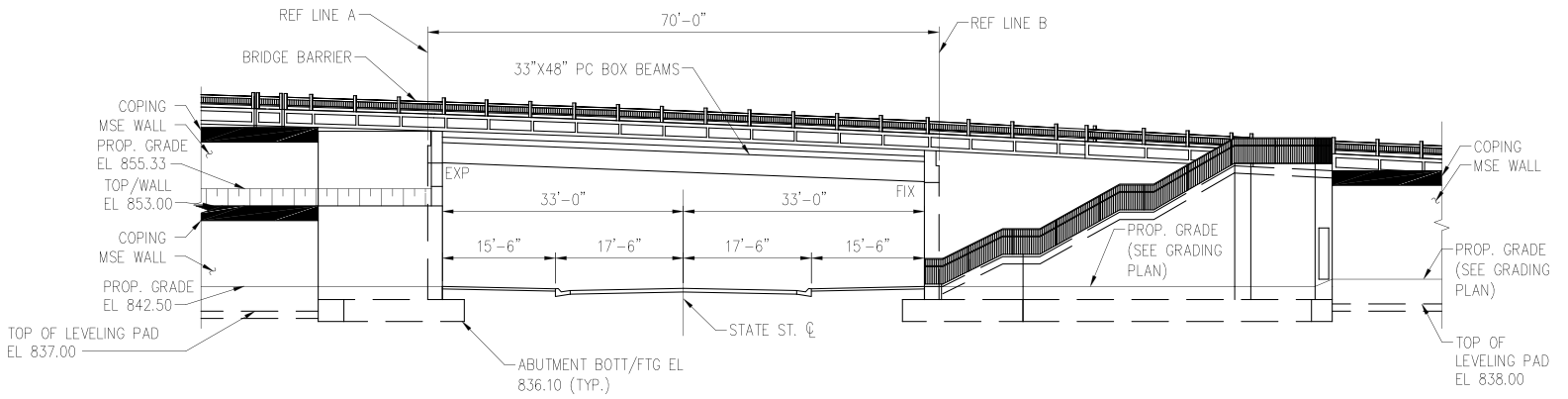
IF DEEMED NECESSARY BY THE ENGINEER, THE CONTRACTOR SHALL PROVIDE, ERECT, MAINTAIN, AND REMOVE FALSE DECKING FOR THE CONSTRUCTION OF THE SUPERSTRUCTURE. FALSE DECKING SHALL NOT ENCRoACH ON THE EXISTING UNDERCLEARANCE. ALL COSTS ASSOCIATED WITH THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE BID ITEM "Prest Conc Box Beam, Erect, 33 inch".

STAKES SET BY THE ENGINEER SHALL BE CAREFULLY PRESERVED BY THE CONTRACTOR. ANY STAKES DESTROYED DUE TO THE CONTRACTOR'S CARELESSNESS WILL BE REPLACED AT THE ENGINEER'S EARLIEST CONVENIENCE. WHEN RESTAKING BECOMES NECESSARY, THE CONTRACTOR WILL BE NOTIFIED IN WRITING AND MAY BE CHARGED FOR THE CREW TIME INVOLVED.

* INDICATES SLOPES & ELEVATIONS OF FOUNDATION DRAINS.



PLAN



ELEVATION

VIEWED NORMAL TO STATE ST. (LOOKING NORTH)

Notes:
 1. Apply healer/sealer in a part-width manner such that one lane of traffic is maintained in each direction at all times.
 2. Seal individual cracks as marked out and directed by the Engineer.
 Penetrating Healer/Sealer, Bridge Deck = 637.3 syd

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 CALL MISS DIG
 800-482-7171
 (TOLL FREE)

LEGEND

EXIST. FENCE	EXIST. UTILITY POLE & GUY	EXIST. ELECTRIC	PROP. POST TOP LIGHT
• CONTOUR	• FIRE HYDRANT ASSEMBLY	• RD. & GRADE	• STREET LIGHT & CONDUIT
• STORM SEWER & CAT. BAS.	• LIGHT POLE	• LEFT EDGE/RD. GRADE	• SANITARY SEWER & MANHOLE
• WATER MAIN & VALVE-IN-WELL	• END SECTION	• RIGHT EDGE/RD. GRADE	• STORM SEWER & CAT. BAS.
• WATER MAIN & VALVE-IN-BOX	• GAS LINE	• CURB & GUTTER	• WATER MAIN W/F.H. ASSEM.
• SANITARY SEWER & MANHOLE	• CABLE T.V.	• CURB & GUTTER (RELA)	• CONTOUR
		• RELOC. STREET LIGHT	• ROAD & GRADE

PROP. INTEGRAL CURB & GUTTER	PROP. MSE WALL
• CONC. CURB & GUTTER	• RENF. CONC. PAVT.
• FENCE	• THICKENED HMA PAVT.
• VEHICLE BARRIER RAILING	• AGGREGATE SURFACE
• CONCRETE SIDEWALK	• STONE WALL
• TRANSITION SECTION	• STONE SLOPE
• FULL DEPTH TRENCH	

PROP. CONC. PAVT.	PROP. HMA PAVT.
• THICKENED HMA PAVT.	• AGGREGATE SURFACE
• STONE WALL	• STONE SLOPE

PROP. CONC. PAVT.	PROP. HMA PAVT.
• THICKENED HMA PAVT.	• AGGREGATE SURFACE
• STONE WALL	• STONE SLOPE

PROP. CONC. PAVT.	PROP. HMA PAVT.
• THICKENED HMA PAVT.	• AGGREGATE SURFACE
• STONE WALL	• STONE SLOPE

PROP. CONC. PAVT.	PROP. HMA PAVT.
• THICKENED HMA PAVT.	• AGGREGATE SURFACE
• STONE WALL	• STONE SLOPE

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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

E. STADIUM BLVD BRIDGES REPLACEMENT PROJECT

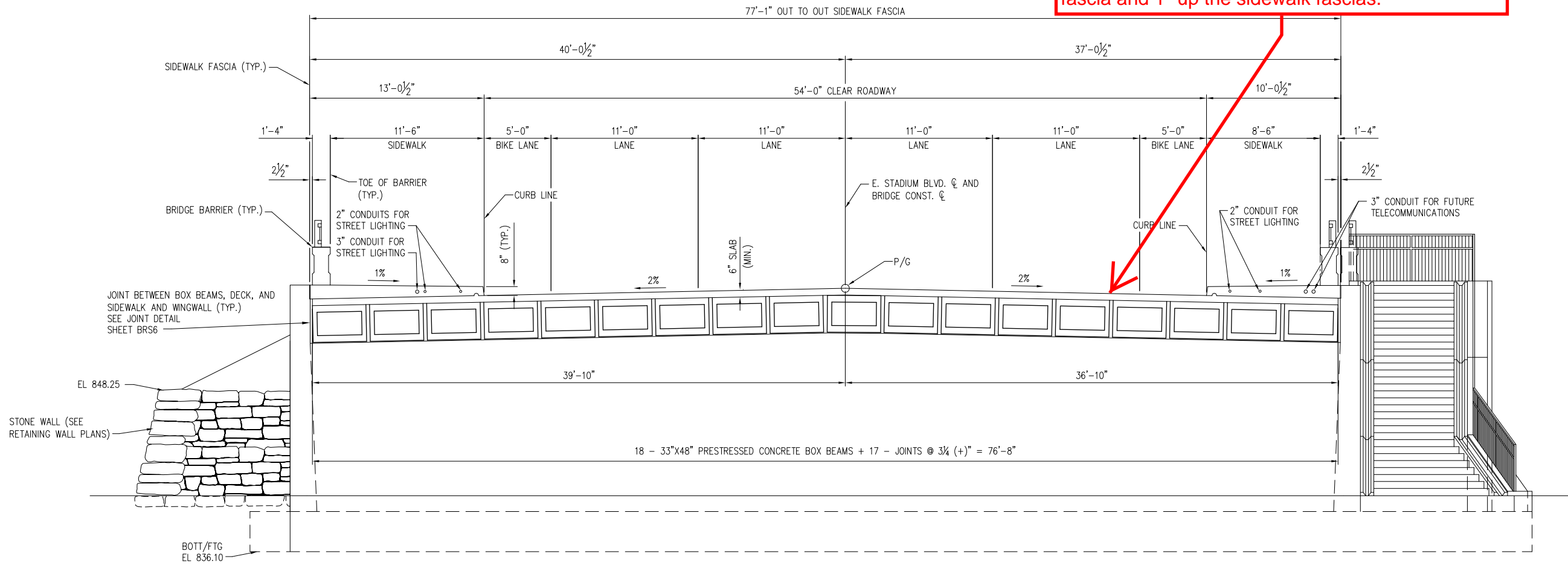
STATE STREET BRIDGE PLANS
 GENERAL PLAN OF STRUCTURE

REV. NO.	DESCRIPTION	DATE	DR. BY	CH. BY
1	STAIR REVISIONS	4/2/12	AM	JD
	ORIGINAL ISSUE	6/8/11	AM	JD

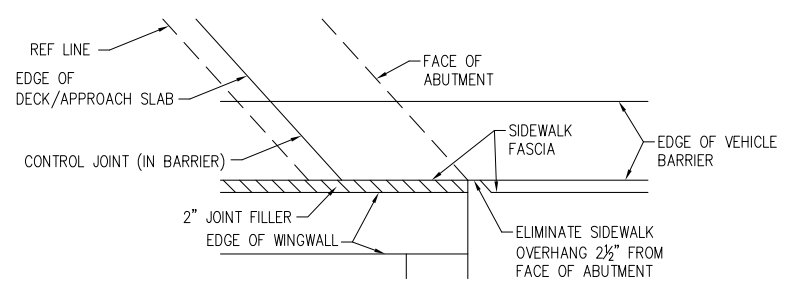
APPROVED BY: _____

2016-014-BRS3
 3 of 11

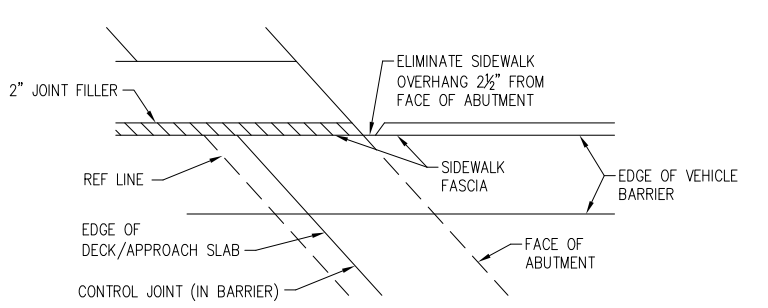
Apply healer/sealer across entire vehicular portion of the bridge deck from sidewalk fascia to sidewalk fascia and 1" up the sidewalk fascias.



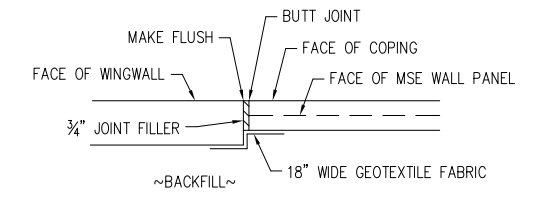
TYPICAL DECK SECTION
(LOOKING PARALLEL TO CONST. C)



1
BRS4 **SIDEWALK OVERHANG DETAIL**



2
BRS4 **SIDEWALK OVERHANG DETAIL**



3
BRS4 **WINGWALL/MSE WALL INTERFACE DETAIL**

ALL WORK ASSOCIATED WITH THE BUTT JOINT SHALL BE INCLUDED IN THE MSE WALL QUANTITIES AND WILL NOT BE PAID FOR SEPARATELY.

3 WORKING DAYS |
BEFORE YOU DIG
CALL MISS DIG
800-482-7171
(TOLL FREE)

LEGEND		EXIST. UTILITY POLE & GUY		EXIST. ELECTRIC		PROP. POST TOP LIGHT		PROP. INTEGRAL CURB & GUTTER		PROP. MSE WALL	
EXIST. FENCE	--- ---	FIRE HYDRANT ASSEMBLY	⊕	RD. C. GRADE	—	STREET LIGHT & CONDUIT	⊙	CONC. CURB & GUTTER	— —	REINF. CONC. PAVT.	▨
CONTOUR	--- ---	LIGHT POLE	⊙	LEFT EDGE/RD. GRADE	—	SANITARY SEWER & MANHOLE	⊙	FENCE	--- ---	THICKENED HMA PAVT.	▨
STORM SEWER & CAT. BAS.	~	END SECTION	⌋	RIGHT EDGE/RD. GRADE	—	STORM SEWER & CAT. BAS.	⊙	VEHICLE BARRIER RAILING	--- ---	AGGREGATE SURFACE	▨
WATER MAIN & VALVE-IN-WELL	ω	CURB & GUTTER	—	CURB & GUTTER	—	WATER MAIN W/F.H. ASSEM.	⊙	CONCRETE SIDEWALK	--- ---	STONE WALL	▨
WATER MAIN & VALVE-IN-BOX	ω	CURB & GUTTER (REM.)	—	RELOC. STREET LIGHT	⊙	CONTOUR	--- ---	TRANSITION SECTION	--- ---	STONE SLOPE	▨
SANITARY SEWER & MANHOLE	ω	2" JOINT FILLER	—			ROAD C. GRADE	--- ---	FULL DEPTH TRENCH	--- ---		

NCI NORTHWEST CONSULTANTS, INC.

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

**E. STADIUM BLVD
BRIDGES REPLACEMENT PROJECT
STATE STREET BRIDGE PLANS
GENERAL PLAN OF STRUCTURE**

SCALE
NONE 0 INCH 1

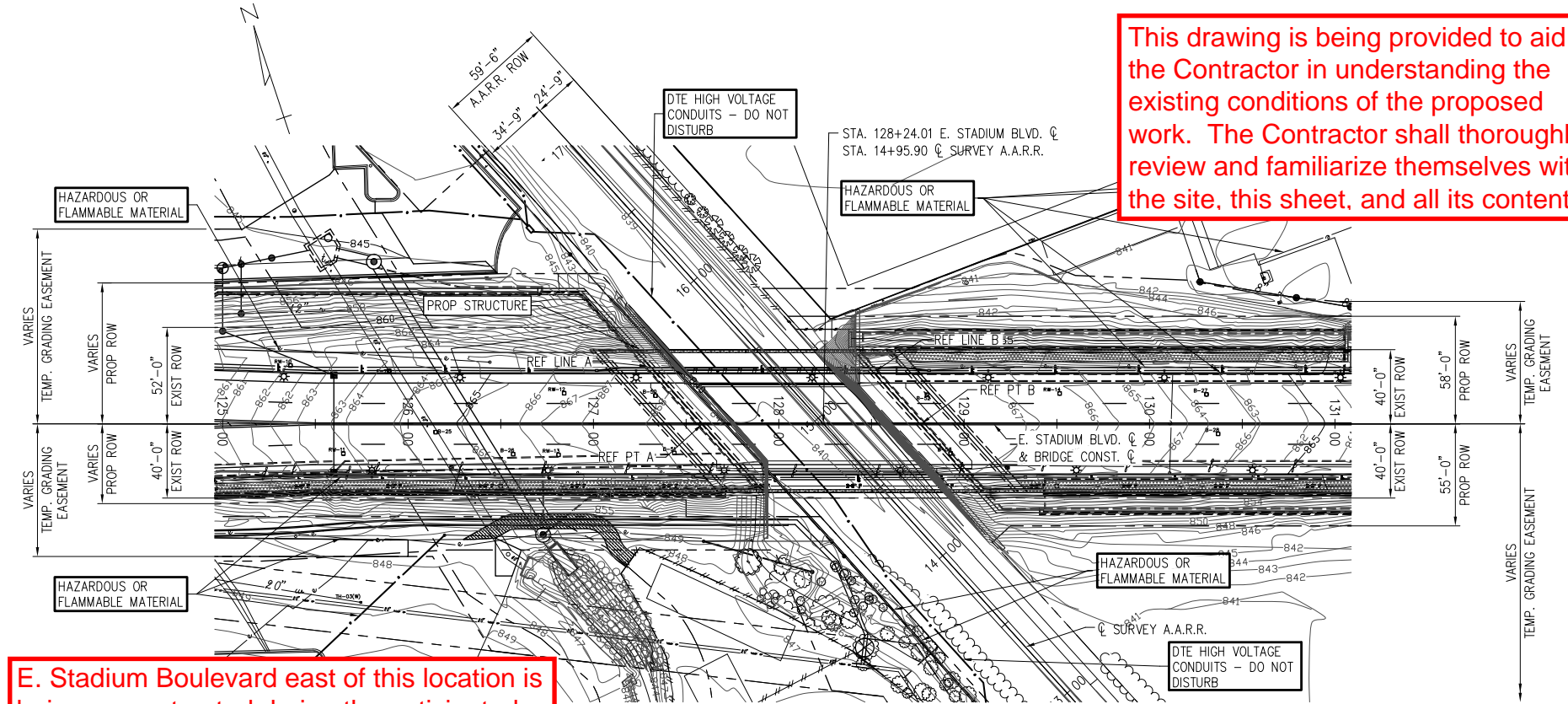
REV. NO.	DESCRIPTION	DATE	DR. BY	CH. BY

APPROVED BY: _____

2016-014-BRS4
4 of 11

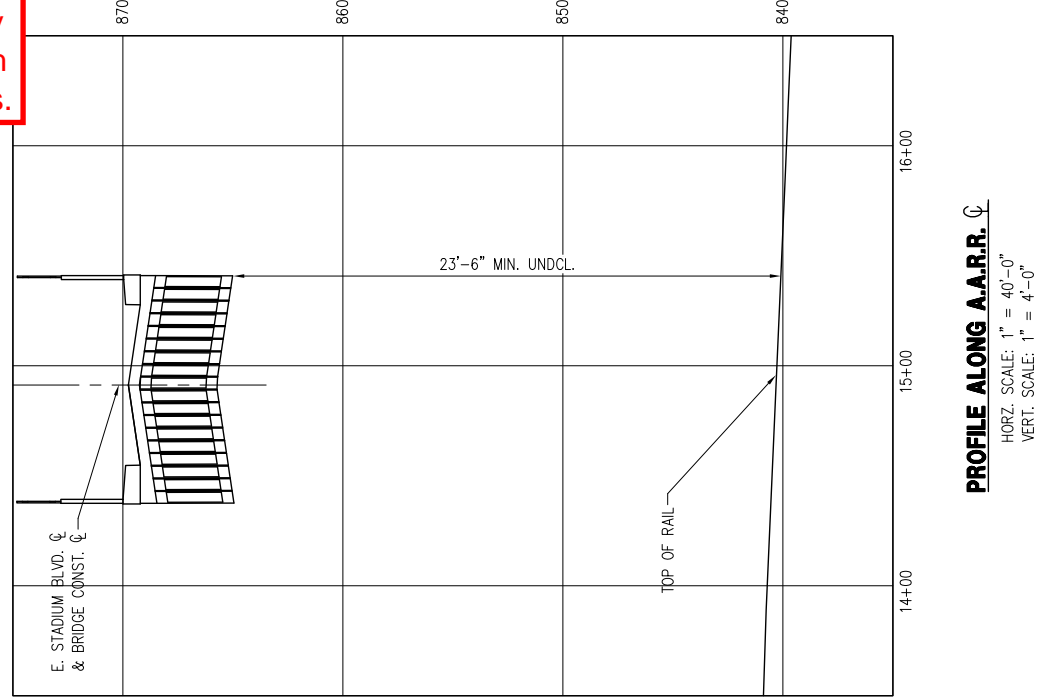
THE EXISTING STRUCTURE IS A SINGLE SPAN, RIVETED STEEL COMPOSITE BRIDGE. IT PROVIDES 40'-0" OF CLEAR ROADWAY. IT SPANS 84'-9". IT WAS REHABILITATED IN 1975 AND REDESIGNED FOR HS20 LOADING.

This drawing is being provided to aid the Contractor in understanding the existing conditions of the proposed work. The Contractor shall thoroughly review and familiarize themselves with the site, this sheet, and all its contents.



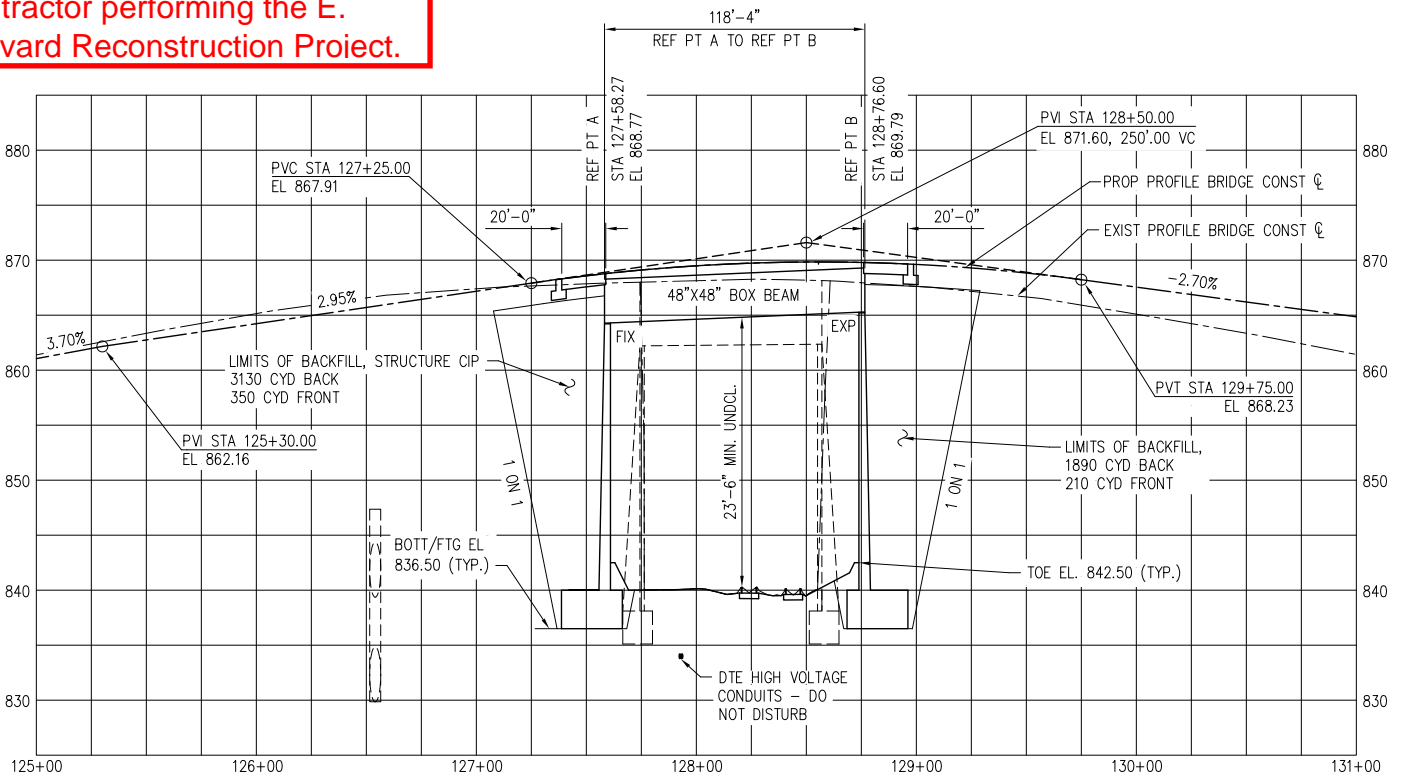
SITUATION PLAN
SCALE: 1" = 40'-0"

E. Stadium Boulevard east of this location is being reconstructed during the anticipated time frame of this project. The Contractor shall coordinate the work of this project with that of the Contractor performing the E. Stadium Boulevard Reconstruction Project.

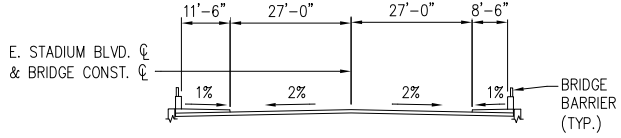


PROFILE ALONG A.A.R.R.
HORZ. SCALE: 1" = 40'-0"
VERT. SCALE: 1" = 4'-0"

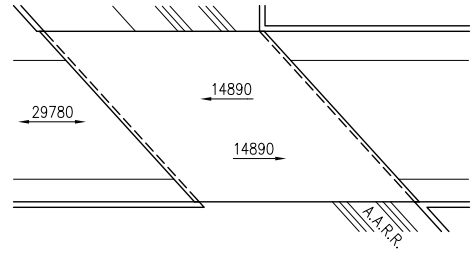
3 WORKING DAYS BEFORE YOU DIG
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(TOLL FREE)



PROFILE ALONG BRIDGE CONST.
HORZ. SCALE: 1" = 40'-0"
VERT. SCALE: 1" = 8'-0"



TYPICAL APPROACH SECTION
(LOOKING UP STATION)



2030 ESTIMATED TRAFFIC DISTRIBUTION

NOTES:

- THE WORK COVERED BY THESE PLANS INCLUDES REMOVAL OF THE EXISTING BRIDGE AND CONSTRUCTION OF THE PROPOSED BRIDGE. ALL OTHER WORK IS INCLUDED IN THE ROAD PLANS THAT ARE A PART OF THIS CONTRACT.
- THE CONTRACTOR SHALL LOCATE ALL ACTIVE UNDERGROUND UTILITIES PRIOR TO STARTING WORK AND SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER AS TO ENSURE THAT THOSE UTILITIES NOT REQUIRING RELOCATION WILL NOT BE DISTURBED. ALL COSTS ASSOCIATED WITH COMPLYING WITH THESE REQUIREMENTS SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE BID ITEM "Mobilization, Max. _____"
- THE GROUND ADJACENT TO THE TRACKS AND STRUCTURE SHALL BE GRADED BY THE CONTRACTOR TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE STRUCTURE. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE BID ITEM "Backfill, Structure, CIP".
- E. STADIUM BLVD. TRAFFIC IS TO BE DETOURED OVER OTHER EXISTING ROADS.
- THE TRAIN MOVEMENT AND SPEED INFORMATION SHOWN IN THE PROPOSAL DOES NOT REPRESENT A COMMITMENT BY THE ANN ARBOR RAILROAD AND IS SUBJECT TO CHANGE WITHOUT NOTICE.
- MEASURES SHALL BE TAKEN TO PREVENT DEBRIS FROM FALLING FROM THE STRUCTURE. ALL MEASURES EMPLOYED BY THE CONTRACTOR SHALL BE EFFECTIVE. ANY DEBRIS THAT FALLS SHALL BE PICKED UP BY THE CONTRACTOR IMMEDIATELY.

LEGEND	EXIST. UTILITY POLE & OUY	EXIST. ELECTRIC	PROP. POST TOP LIGHT	PROP. INTEGRAL CURB & GUTTER	PROP. MSE WALL
<ul style="list-style-type: none"> CONTOUR STORM SEWER & CAT. BAS. WATER MAIN & VALVE-IN-MELL WATER MAIN & VALVE-IN-BOX SANITARY SEWER & MANHOLE 	<ul style="list-style-type: none"> FIRE HYDRANT ASSEMBLY END SECTION TELEPHONE GAS LINE CABLE T.V. 	<ul style="list-style-type: none"> RD. & GRADE LEFT EDGE/RD. GRADE RIGHT EDGE/RD. GRADE CURB & GUTTER CURB & GUTTER (REM.) RELOC. STREET LIGHT 	<ul style="list-style-type: none"> STREET LIGHT & CONDUIT SANITARY SEWER & MANHOLE STORM SEWER & CAT. BAS. WATER MAIN W/F.H. ASSEM. CONTOUR ROAD & GRADE 	<ul style="list-style-type: none"> CONC. CURB & GUTTER FENCE VEHICLE BARRIER RAILING CONCRETE SIDEWALK TRANSITION SECTION FULL DEPTH TRENCH 	<ul style="list-style-type: none"> REINF. CONC. PAVT. THICKENED HMA PAVT. AGGREGATE SURFACE STONE WALL STONE SLOPE

NCI NORTHWEST CONSULTANTS, INC.

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

E. STADIUM BLVD BRIDGES REPLACEMENT PROJECT

ANN ARBOR RAILROAD BRIDGE PLANS

GENERAL PLAN OF SITE

SCALE VARIES INCH 1

2016-014-BRA1
5 of 11

REV. NO.	DESCRIPTION	DATE	DR.BY	CH.BY

MISCELLANEOUS QUANTITIES

AMOUNT	UNIT	ITEM
10750	CYD	Excavation, Fdn
5570	CYD	Backfill, Structure, CIP
1	LS	Structure, Rem, AARR
371	FT	Underdrain, Fdn, 6 inch
87	SYD	Geotextile Separator

NOTES:

THE DESIGN OF THIS STRUCTURE IS BASED ON 1.2 TIMES THE CURRENT AASHTO LRFD BRIDGE DESIGN SPECIFICATION HL-93 LOADING WITH THE EXCEPTION THAT THE DESIGN TANDEM PORTION OF THE HL-93 LOAD DEFINITION SHALL BE REPLACED BY A SINGLE 60 KIP AXLE LOAD BEFORE APPLICATION OF THIS 1.2 FACTOR. THE RESULTING LOAD IS DESIGNATED HL-93 MOD. LIVE LOAD PLUS DYNAMIC LOAD ALLOWANCE DEFLECTION DOES NOT EXCEED 1/1000 OF SPAN LENGTH AND 1/375 OF CANTILEVER ARM.

ALL EXPOSED CONCRETE CORNERS SHOWN SQUARE ON THE PLANS SHALL BE BEVELED WITH 3/4" TRIANGULAR MOLDINGS EXCEPT AS OTHERWISE NOTED.

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 PAYMENT SHALL BE MADE FOR COMPLYING WITH THESE REQUIREMENTS.

THE TOP OF ROADWAY SLAB AND TOPS OF SIDEWALKS AND BRIDGE RAILINGS ARE PARALLEL TO THE VERTICAL CURVE.

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER AND THE RAILWAY DETAILED EXCAVATION PLANS, TEMPORARY SHORING PLANS, AND CALCULATIONS ALL PREPARED AND SIGNED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF MICHIGAN SHOWING SIZES OF ALL TEMPORARY SHORING STRUCTURAL MEMBERS, DETAILS OF CONNECTION, AND EMBEDMENT DEPTH. THE PLANS SHALL INCLUDE A PLAN VIEW SHOWING ALL THE PROPOSED EXCAVATIONS AND DISTANCES FROM CENTERLINE OF TRACK TO FACE OF EXCAVATION. PLANS SHALL SHOW A SECTION NORMAL TO THE TRACK SHOWING THE SHORING LOCATION RELATIVE TO THE CENTERLINE OF TRACK AND SHOWING THE HEIGHT OF SHEETING AND TRACK ELEVATION IN RELATION TO THE BOTTOM OF EXCAVATION. THE PLANS MUST BE COMPLETE AND ACCURATELY DESCRIBE THE NATURE OF THE WORK. THE PLANS AND CALCULATIONS SHALL BE APPROVED BY THE RAILWAY BEFORE EXCAVATION BEGINS.

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER AND THE RAILWAY A DEMOLITION PLAN INDICATING THE METHOD OF TRACK PROTECTION, THE SEQUENCE OF DEMOLITION, AND A DESCRIPTION OF THE PROCEDURE AND EQUIPMENT TO BE USED DURING DEMOLITION. ALL DEMOLITION PLANS AND PROCEDURES SHALL BE REVIEWED AND APPROVED BY THE RAILWAY BEFORE DEMOLITION BEGINS. NO DEBRIS SHALL BE ALLOWED TO INTENTIONALLY FALL TO RAILWAY PROPERTY.

A MINIMUM TEMPORARY CONSTRUCTION UNDERCLEARANCE OF 19.5 FEET WILL BE ALLOWED OVER THE RAILROAD TRACK BETWEEN POINTS 10.5 FEET EITHER SIDE OF TRACK CENTERLINE.

A MINIMUM HORIZONTAL CLEARANCE OF 10.5 FEET FROM CENTERLINE OF TRACK TO ANY PROPOSED WORK SHALL BE MAINTAINED AT ALL TIMES.

UPON COMPLETION OF CONSTRUCTION WORK, THE CONTRACTOR SHALL ENSURE THAT MATERIALS AND EQUIPMENT HAVE BEEN REMOVED AND THAT THE PERMANENT VERTICAL AND HORIZONTAL CLEARANCES (OVER AND ADJACENT TO THE RAILROAD) ARE AT LEAST THOSE SHOWN ON THE PLANS.

REFER TO THE SPECIAL PROVISION "ANN ARBOR RAILROAD, WORK WITHIN RIGHT-OF-WAY" LOCATED IN THE PROPOSAL FOR FURTHER REQUIREMENTS WHEN WORKING ON OR ABOVE RAILROAD PROPERTY.

THE CONTRACTOR SHALL PROVIDE ALL NEEDED FITTINGS AND TEES NEEDED TO INSTALL THE FOUNDATION UNDERDRAINS AND OUTLETS. THESE FITTINGS WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE RESPECTIVE ITEMS OF WORK.

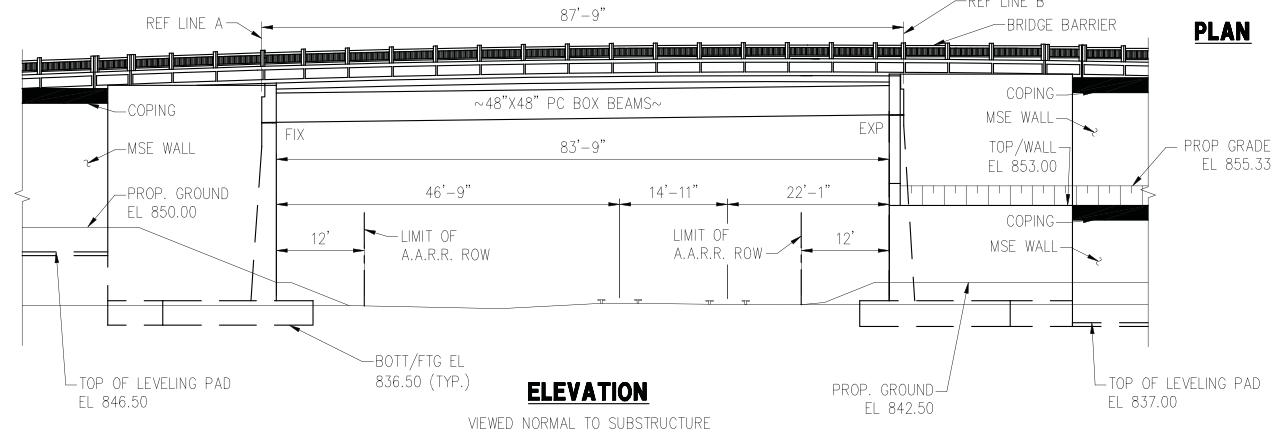
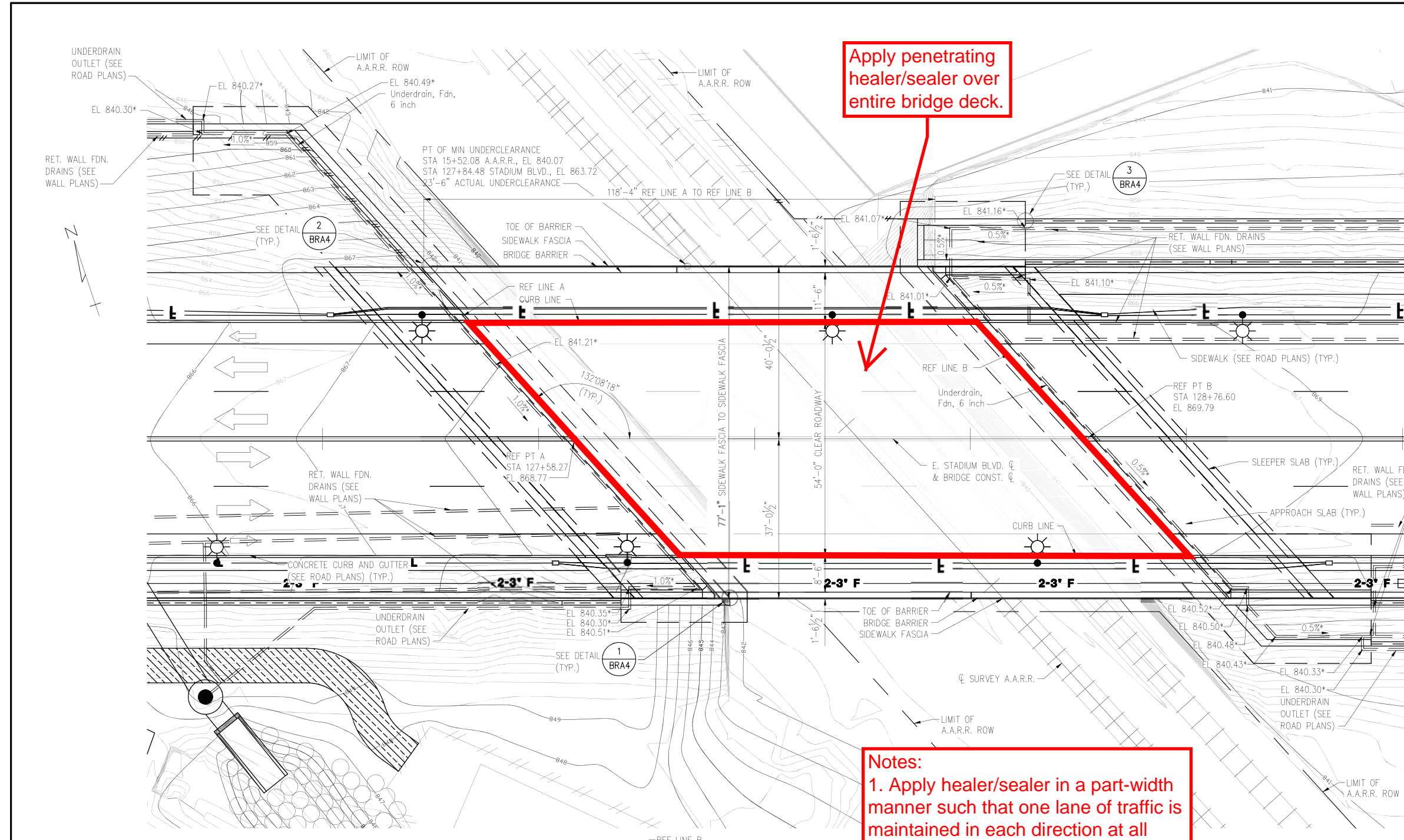
IF DEEMED NECESSARY BY THE ENGINEER, THE CONTRACTOR SHALL PROVIDE, ERECT, MAINTAIN, AND REMOVE FALSE DECKING FOR THE CONSTRUCTION OF THE SUPERSTRUCTURE. FALSE DECKING SHALL NOT ENCROACH ON THE TEMPORARY CONSTRUCTION UNDERCLEARANCE. ALL COSTS ASSOCIATED WITH THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE BID ITEM "Prest Conc Box Beam, Erect, 48 inch".

STAKES SET BY THE ENGINEER SHALL BE CAREFULLY PRESERVED BY THE CONTRACTOR. ANY STAKES DESTROYED DUE TO THE CONTRACTOR'S CARELESSNESS WILL BE REPLACED AT THE ENGINEER'S EARLIEST CONVENIENCE. WHEN RESTAKING BECOMES NECESSARY, THE CONTRACTOR WILL BE NOTIFIED IN WRITING AND MAY BE CHARGED FOR THE CREW TIME INVOLVED.

* INDICATES SLOPES & ELEVATIONS OF FOUNDATION DRAINS.

Apply penetrating healer/sealer over entire bridge deck.

Notes:
 1. Apply healer/sealer in a part-width manner such that one lane of traffic is maintained in each direction at all times.
 2. Seal individual cracks as marked out and directed by the Engineer.
 Penetrating Healer/Sealer, Bridge Deck = 1,013.4 syd



LEGEND

<p>EXIST. FENCE</p> <ul style="list-style-type: none"> CONTOUR STORM SEWER & CAT. BAS. WATER MAIN & VALVE-IN-WELL WATER MAIN & VALVE-IN-BOX SANITARY SEWER & MANHOLE 	<p>EXIST. UTILITY POLE & GUY</p> <ul style="list-style-type: none"> FIRE HYDRANT ASSEMBLY END SECTION TELEPHONE GAS LINE CABLE T.V. 	<p>EXIST. ELECTRIC</p> <ul style="list-style-type: none"> RD. & GRADE LEFT EDGE/RD. GRADE RIGHT EDGE/RD. GRADE CURB & GUTTER CURB & GUTTER (RELA) RELOC. STREET LIGHT 	<p>PROP. POST TOP LIGHT</p> <ul style="list-style-type: none"> STREET LIGHT & CONDUIT SANITARY SEWER & MANHOLE STORM SEWER & CAT. BAS. WATER MAIN W/F.H. ASSEM. CONTOUR ROAD & GRADE 	<p>PROP. INTEGRAL CURB & GUTTER</p> <ul style="list-style-type: none"> CONC. CURB & GUTTER FENCE VEHICLE BARRIER RAILING CONCRETE SIDEWALK TRANSITION SECTION FULL DEPTH TRENCH 	<p>PROP. MSE WALL</p> <ul style="list-style-type: none"> REINF. CONC. PAVT. THICKENED HMA PAVT. AGGREGATE SURFACE STONE WALL STONE SLOPE
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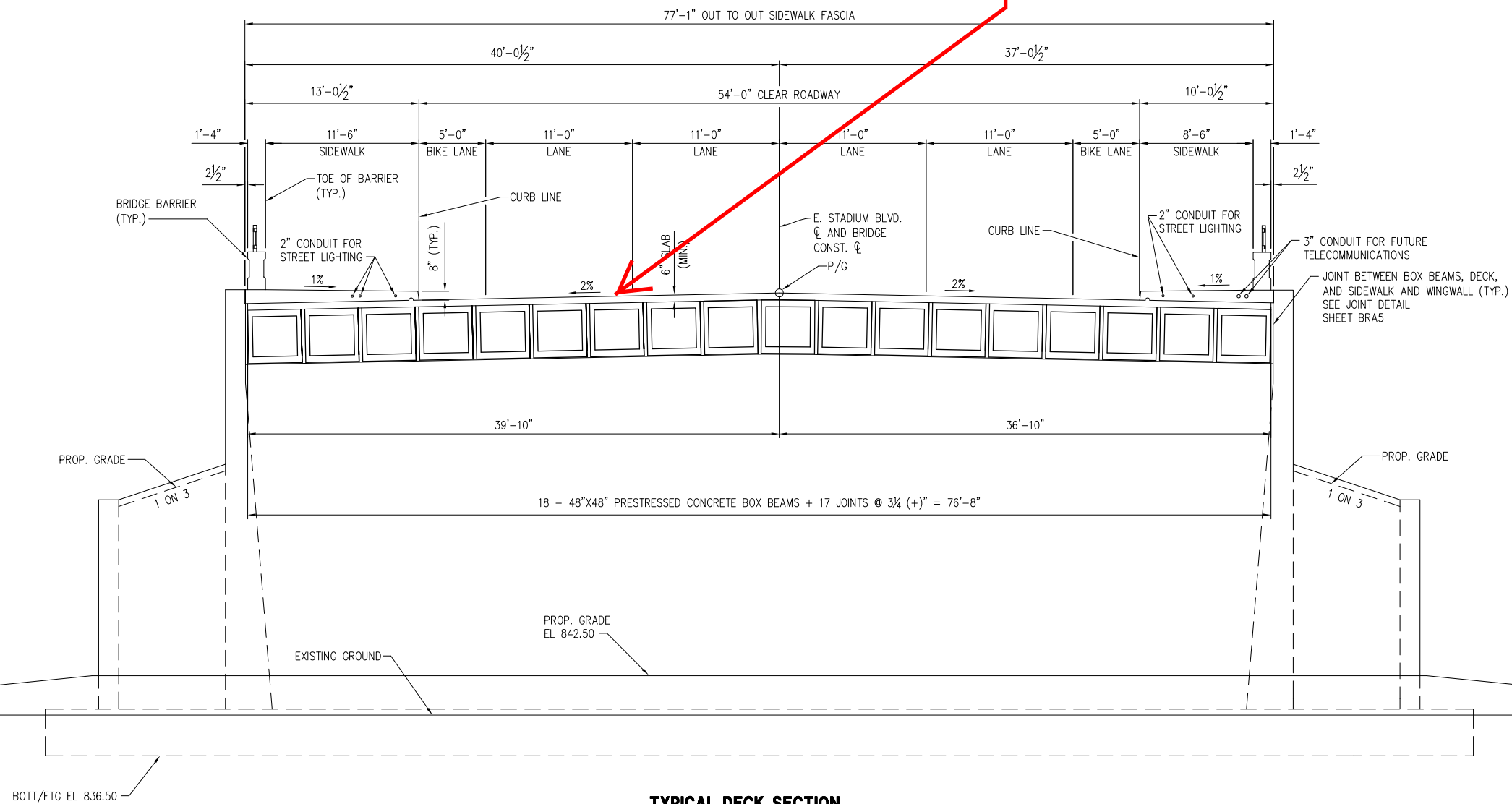
3 WORKING DAYS | BEFORE YOU DIG CALL MISS DIG 800-482-7171 (TOLL FREE)

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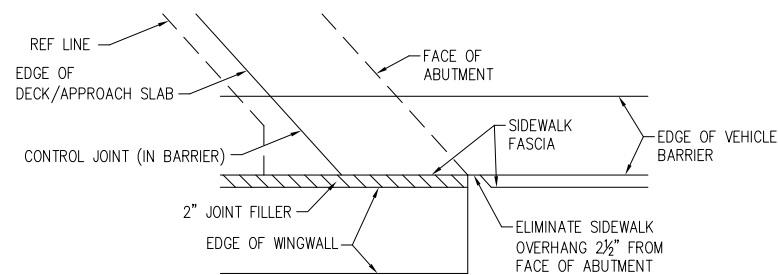
E. STADIUM BLVD BRIDGES REPLACEMENT PROJECT		SCALE: NONE
ANN ARBOR RAILROAD BRIDGE PLANS		2016-014-BRA3
GENERAL PLAN OF STRUCTURE		6 of 11
REV. NO.	DESCRIPTION	DATE
AM	JD	DR.BY
CH.BY	APPROVED BY:	

Apply healer/sealer across entire vehicular portion of the bridge deck from sidewalk fascia to sidewalk fascia and 1" up the sidewalk fascias.



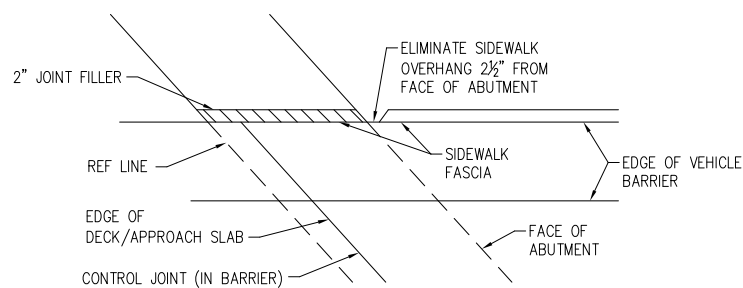
TYPICAL DECK SECTION

(LOOKING PARALLEL TO CONST. CL)



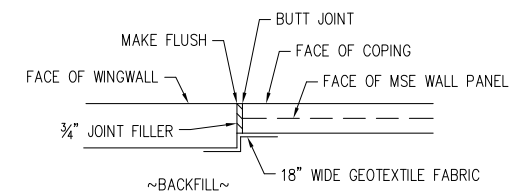
1 SIDEWALK OVERHANG DETAIL

1
BRA4



2 SIDEWALK OVERHANG DETAIL

2
BRA4



3 WINGWALL/MSE WALL INTERFACE DETAIL

3
BRA4

ALL WORK ASSOCIATED WITH THE BUTT JOINT SHALL BE INCLUDED IN THE MSE WALL QUANTITIES AND WILL NOT BE PAID FOR SEPARATELY.

3 WORKING DAYS
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800-482-7171
(TOLL FREE)

LEGEND		EXIST. UTILITY POLE & GUY		EXIST. ELECTRIC		PROP. POST TOP LIGHT		PROP. INTEGRAL CURB & GUTTER		PROP. MSE WALL	
EXIST. FENCE	--- --- ---	FIRE HYDRANT ASSEMBLY	⊕	RD. CL GRADE	—	STREET LIGHT & CONDUIT	⊙	CONC. CURB & GUTTER	=====	REINF. CONC. PAVT.	▨
CONTOUR	--- --- ---	LIGHT POLE	○	LEFT EDGE/RD. GRADE	---	SANITARY SEWER & MANHOLE	⊙	FENCE	=====	THICKENED HMA PAVT.	▨
STORM SEWER & CAT. BAS.	~	END SECTION)	RIGHT EDGE/RD. GRADE	---	STORM SEWER & CAT. BAS.	⊙	VEHICLE BARRIER RAILING	=====	AGGREGATE SURFACE	▨
WATER MAIN & VALVE-IN-WELL	ω	TELEPHONE	l	CURB & GUTTER	=====	WATER MAIN W/F.H. ASSEM.	⊙	CONCRETE SIDEWALK	=====	STONE WALL	▨
WATER MAIN & VALVE-IN-BOX	ω	GAS LINE	g	CURB & GUTTER (REM.)	=====	CONTOUR	847	TRANSITION SECTION	=====	STONE SLOPE	▨
SANITARY SEWER & MANHOLE	ω	CABLE T.V.	tv	RELOC. STREET LIGHT	⊙	ROAD CL GRADE	---	FULL DEPTH TRENCH	=====		

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**E. STADIUM BLVD
BRIDGES REPLACEMENT PROJECT
ANN ARBOR RAILROAD BRIDGE PLANS
GENERAL PLAN OF STRUCTURE**

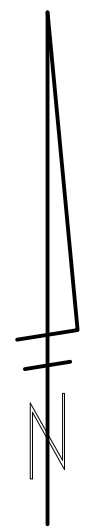
SCALE
NONE 0 INCH 1

REV. NO.	DESCRIPTION	DATE	DR. BY	CH. BY
ORIGINAL	ISSUE	6/8/11	AM	JD

APPROVED BY:

2016-014-BRA4
7 of 11

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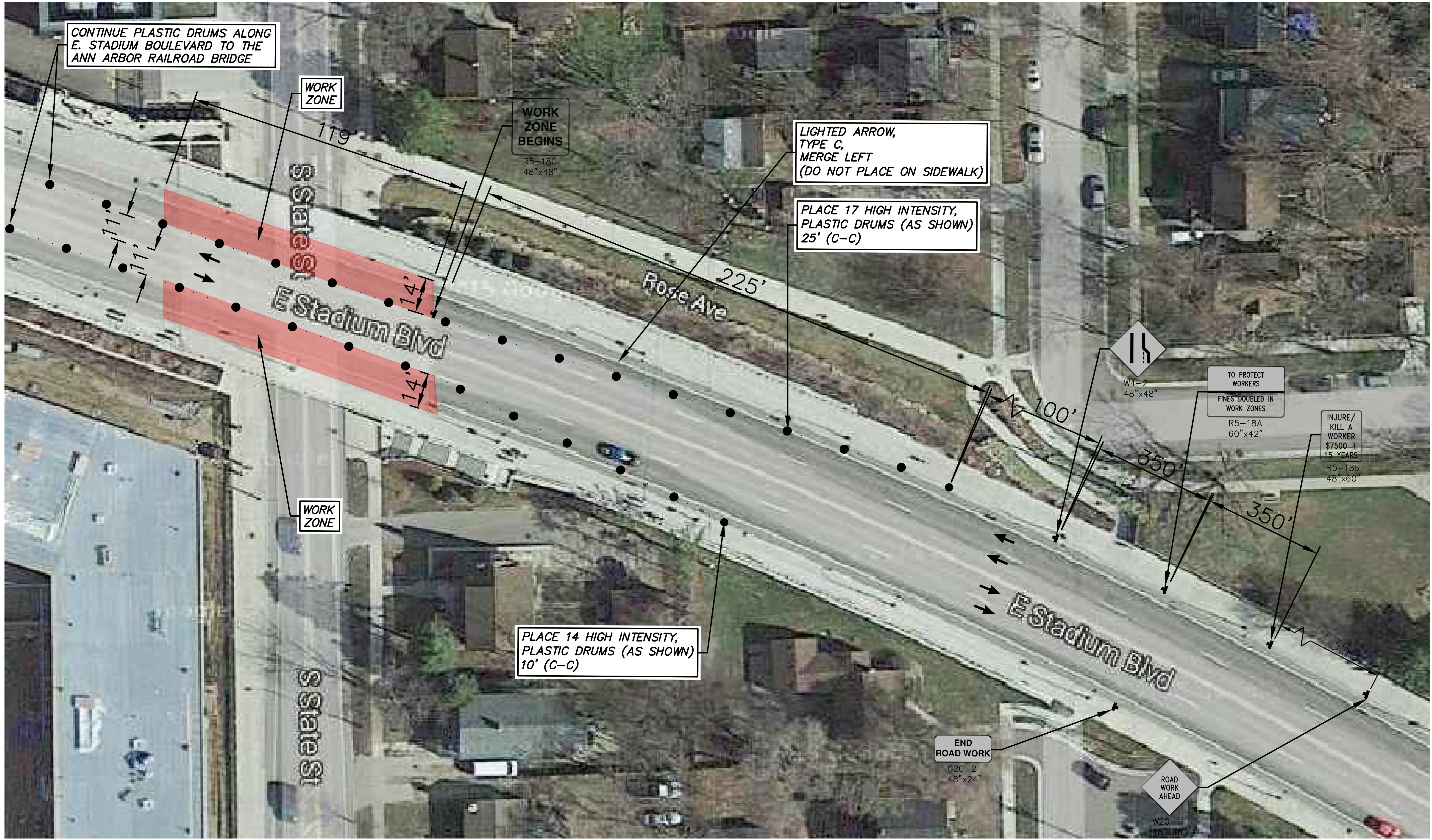
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00	PLAN REVIEW
01	DATE
02	DRAWN
03	CHECKED

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 PUBLIC SERVICES
 301 EAST HURON STREET
 ANN ARBOR, MI 48106-0667
 www.a2gov.org

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
 STADIUM BOULEVARD
 BRIDGE DECK SEALING

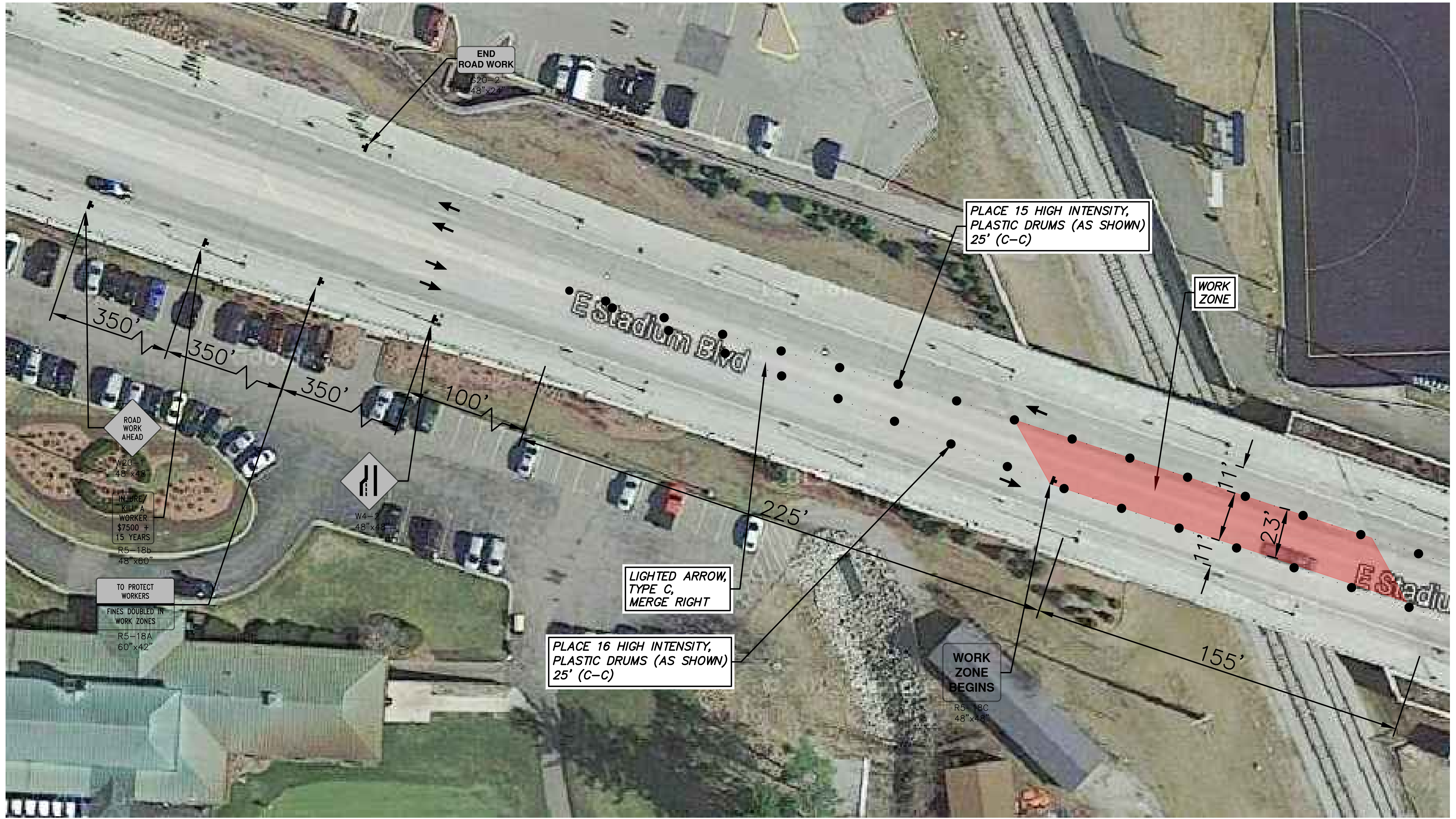
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SHEET No. 8 OF 11



NO	PLAN REVIEW	DATE	CHECKED
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR STADIUM BOULEVARD BRIDGE DECK SEALING			
SHEET No.	SCALE: 1"=20'	DRAWING No.	2016-014
9 OF 11			

S:\Project Management\General\2006-045 E. Stadium Bridges\Crack Filling\Railroad Bridge Phase 2.dwg Dwg Created: 29-May-15 - Plot Date: 29-Aug-16



811
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PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR
STADIUM BOULEVARD
BRIDGE DECK SEALING

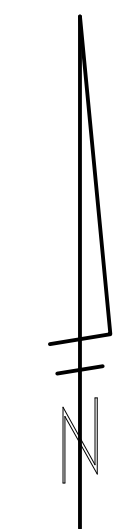
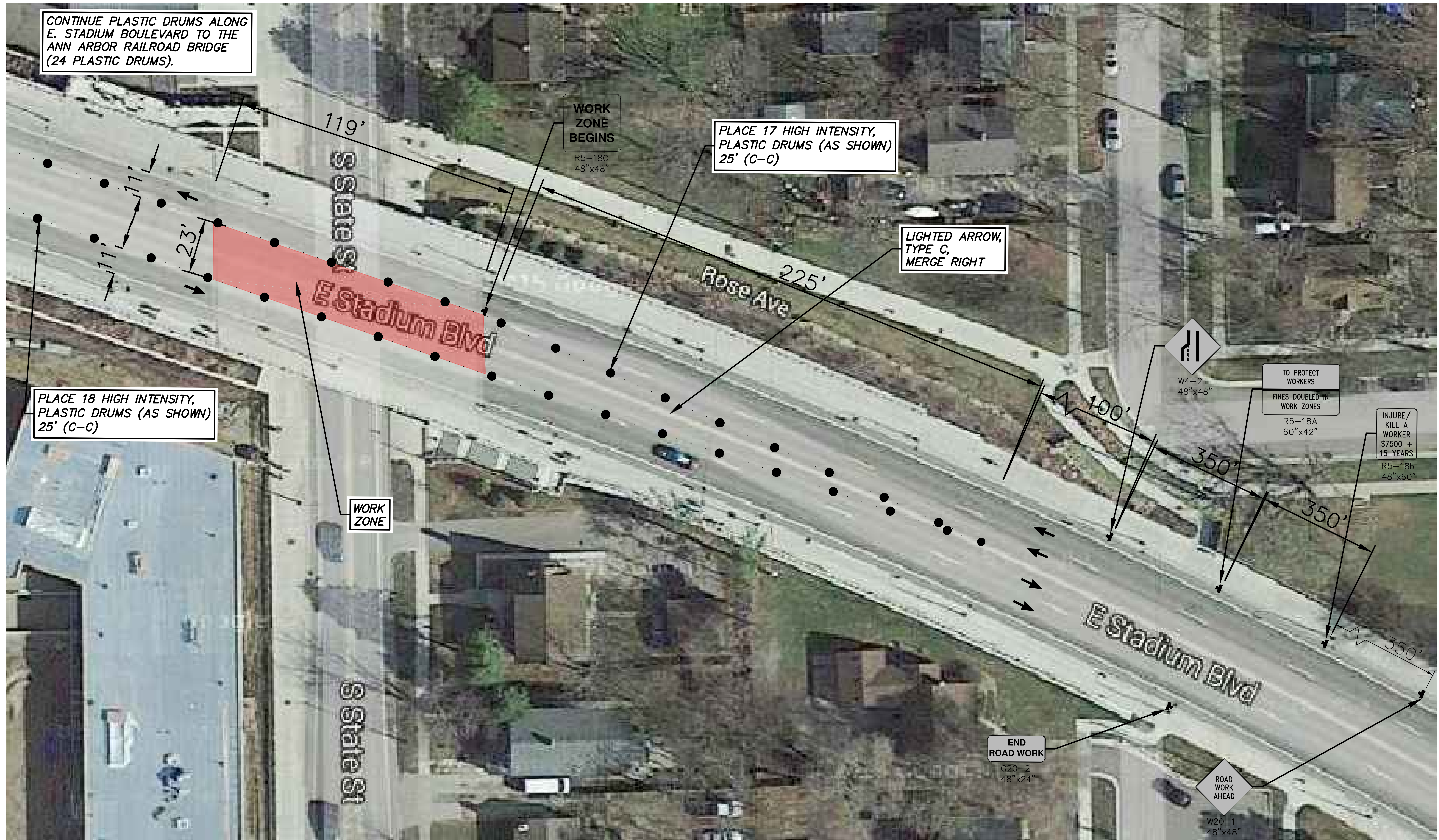
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DRAWING No.
2016-014

SHEET No.

10 OF 11

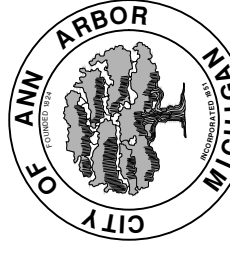
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**STADIUM BOULEVARD
BRIDGE DECK SEALING**

SCALE: 1"=20'

DRAWING No. **2016-014**

SHEET No. **11 OF 11**