

# CITY OF ANN ARBOR PROJECT MANAGEMENT BURNS PARK PERMEABLE ALLEY APRIL 2011

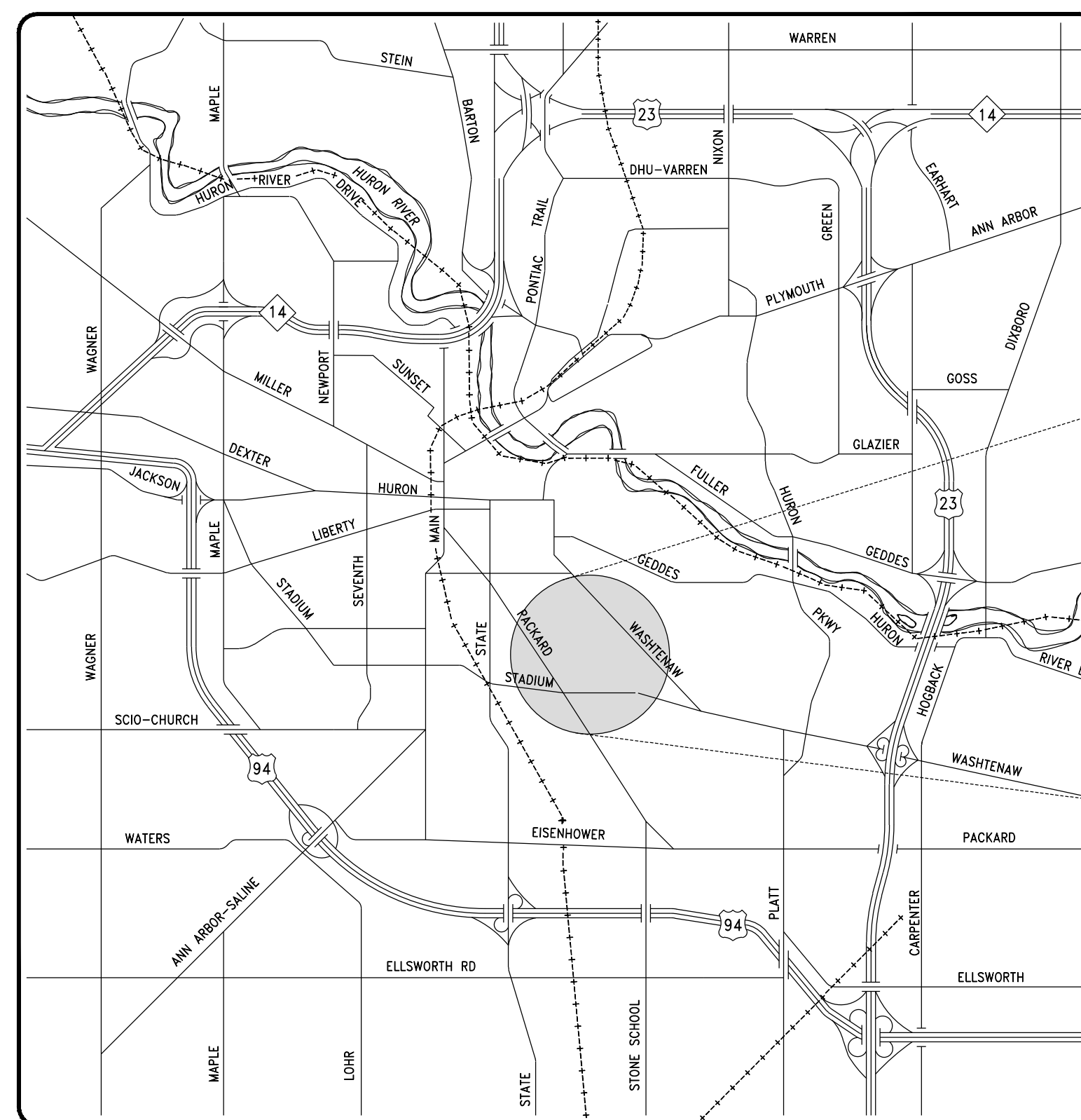
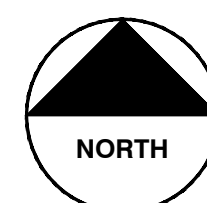
## SHEET INDEX

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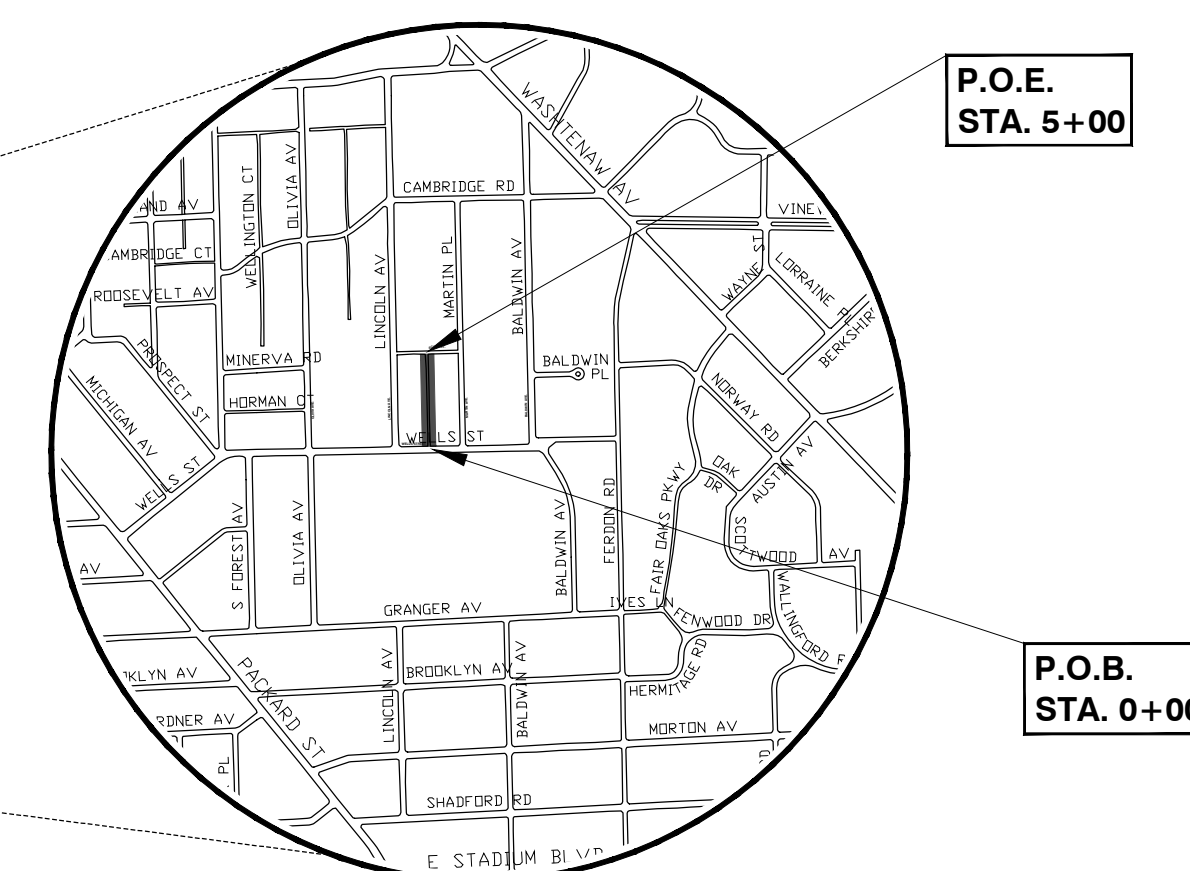
**BID No. 4134, FILE No. 2010034**

PERMITS REQUIRED TO BE OBTAINED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR THESE PERMIT FEES.	
PERMIT	ISSUING AUTHORITY
LANE CLOSURE PERMIT	CITY OF ANN ARBOR PROJECT MANAGEMENT UNIT
"NO PARKING" SIGNS PERMIT	CITY OF ANN ARBOR PROJECT MANAGEMENT UNIT
GRADING/SOIL EROSION & SEDIMENTATION CONTROL PERMIT	CITY OF ANN ARBOR PLANNING AND DEVELOPMENT SERVICES UNIT
RIGHT-OF-WAY PERMIT	CITY OF ANN ARBOR PLANNING AND DEVELOPMENT SERVICES UNIT

THE FOLLOWING UTILITIES ARE LOCATED IN OR NEAR THE RIGHT-OF-WAY FOR THIS PROJECT		
PUBLIC UTILITIES	OWNER	CONTACT
WATER SEWER STORM	CITY OF ANN ARBOR FIELD OPERATIONS SERVICE UNIT W.R. WHEELER SERVICE CENTER 4251 STONE SCHOOL ROAD ANN ARBOR, MI 48108	DENNY ZINK (734) 794-6350
SIGNS SIGNALS STREET LIGHTS	CITY OF ANN ARBOR FIELD OPERATIONS SERVICE UNIT W.R. WHEELER SERVICE CENTER 4251 STONE SCHOOL ROAD ANN ARBOR, MI 48108	CHUCK FOJTIK (734) 794-6361
PRIVATE UTILITIES	OWNER	CONTACT
GAS	DTE ENERGY 17150 ALLEN ROAD MELVINDALE, MI 48122	JACK WYHATT (313) 701-1355
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	BRIAN BERRY (734) 996-2135
PHONE	MCI 2800 N. GLENFILLE ROAD RICHARDSON, TX 75082	DEAN BOYERS (972) 729-6016



VICINITY MAP



LOCATION MAP

THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE 1994 EDITION OF THE CITY OF ANN ARBOR PUBLIC SERVICES DEPARTMENT STANDARD SPECIFICATIONS AND ITS DETAILS WHICH ARE INCLUDED BY REFERENCE.

THE OMISSION OF ANY CURRENT STANDARD DETAIL DOES NOT RELIEVE THE CONTRACTOR FROM THIS REQUIREMENT. THE WORK SHALL BE PERFORMED IN COMPLETE CONFORMANCE WITH THE CURRENT PUBLIC SERVICES STANDARD SPECIFICATIONS AND DETAILS.

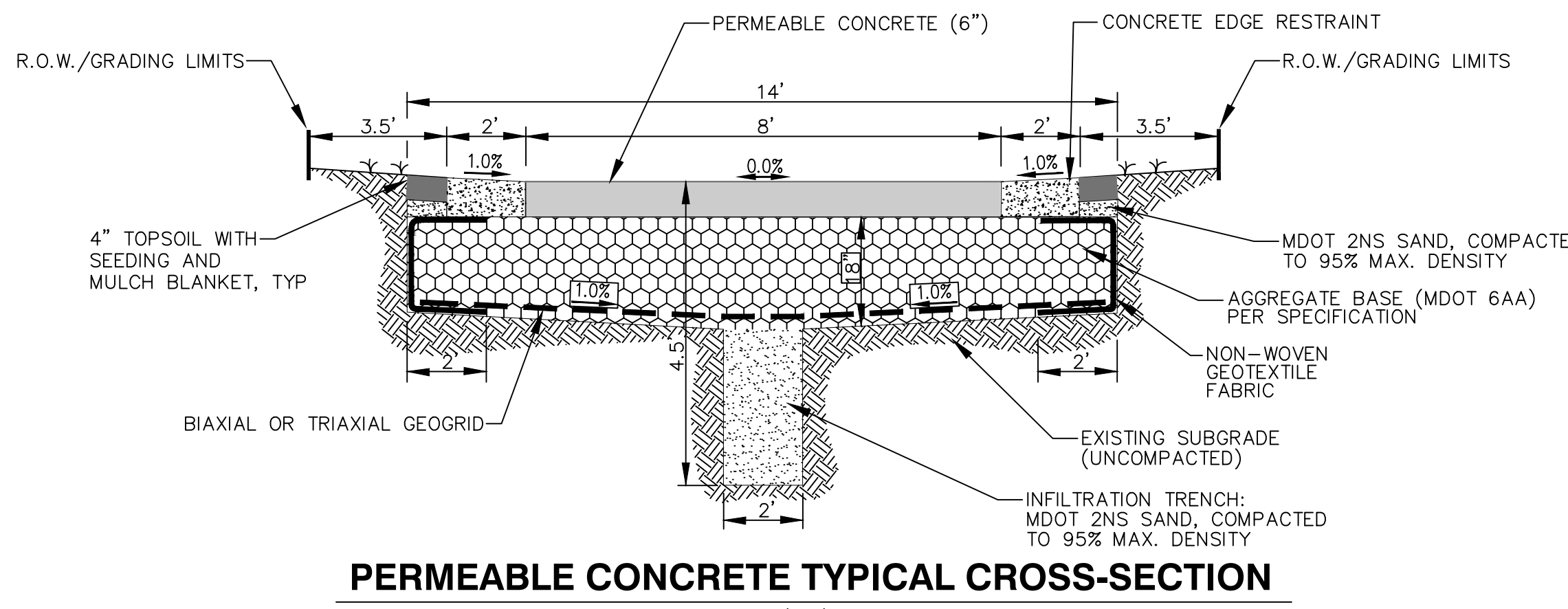
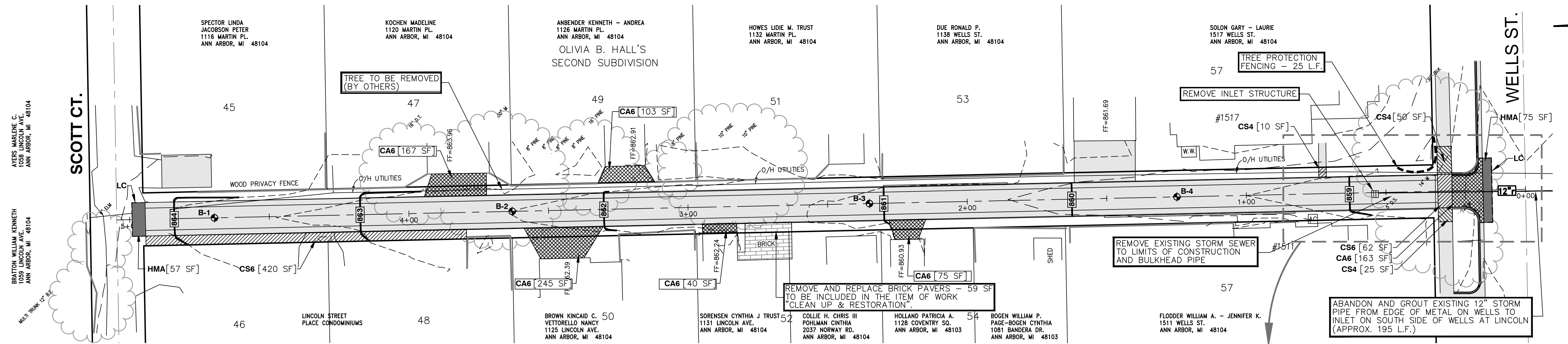
FOR PROTECTION OF UNDERGROUND UTILITIES AND IN CONFORMANCE WITH PUBLIC ACT 53, THE CONTRACTOR SHALL CALL 811 OR 1-800-482-7171 A MINIMUM OF THREE FULL WORKING DAYS, EXCLUDING SATURDAYS, SUNDAYS, AND HOLIDAYS PRIOR TO BEGINNING EACH EXCAVATION IN AREAS WHERE PUBLIC UTILITIES HAVE NOT BEEN PREVIOUSLY LOCATED. 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.



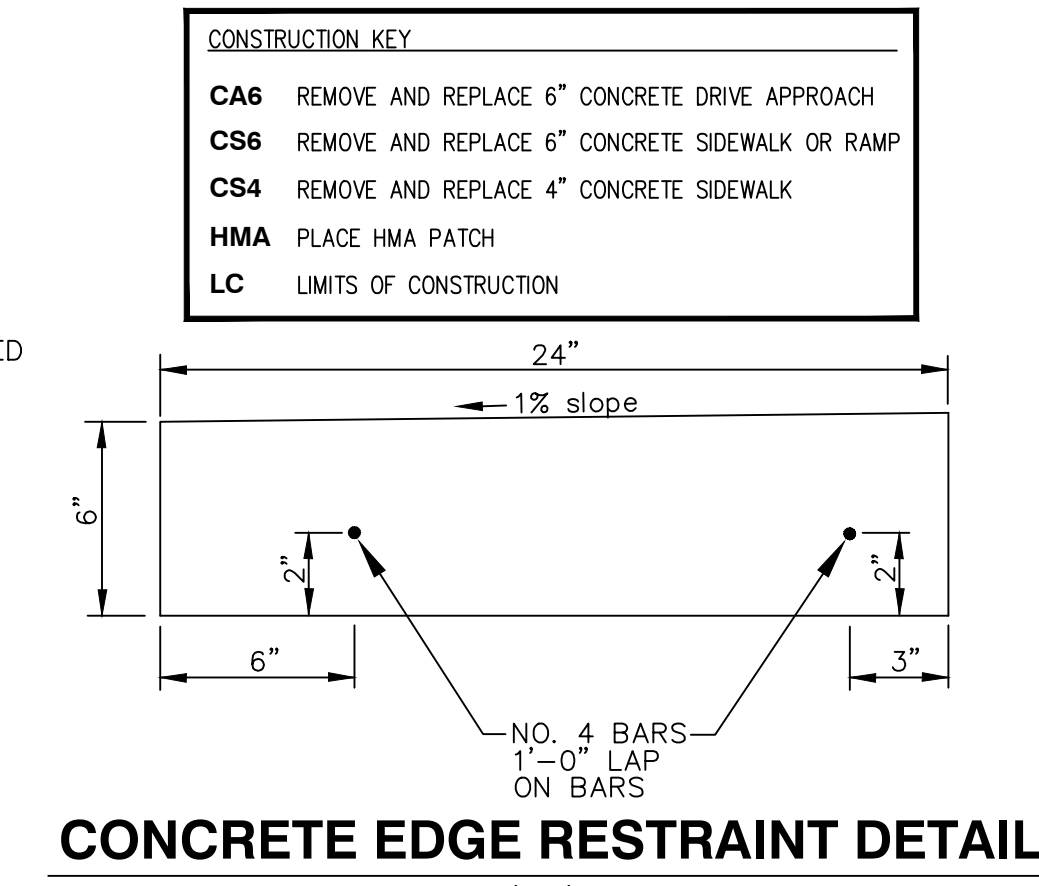
PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR	
<p style="text-align: right;"><i>Homayoon Pirooz</i> 4/27/2011</p> <p>HOMAYOON PIROOZ, P.E. - MI LICENSE No. 34535 PROJECT MANAGEMENT MANAGER</p> <p style="text-align: right;">DATE</p> <hr/> <p style="text-align: center;">PREPARED UNDER THE SUPERVISION OF</p> <p style="text-align: right;"><i>Nicholas Hutchinson</i></p> <p>NICHOLAS HUTCHINSON, P.E. - MI LICENSE No. 46789 PROJECT MANAGER</p> <p style="text-align: right;">DATE 4/27/2011</p>	<p>ENGINEER'S SEAL</p> <p>ENGINEER'S SEAL</p>

SURVEY	REVIEW ENGINEER	FIELD OPERATIONS	C.E.S. SUPERVISOR	TRAFFIC	SOIL EROSION	STORM WATER/FLOODPLAIN	DRAWING No.
GFD	CC	KE	DC	<i>J.T.B.</i>		JH	2010034 - C
							SHEET No. 1 OF 5

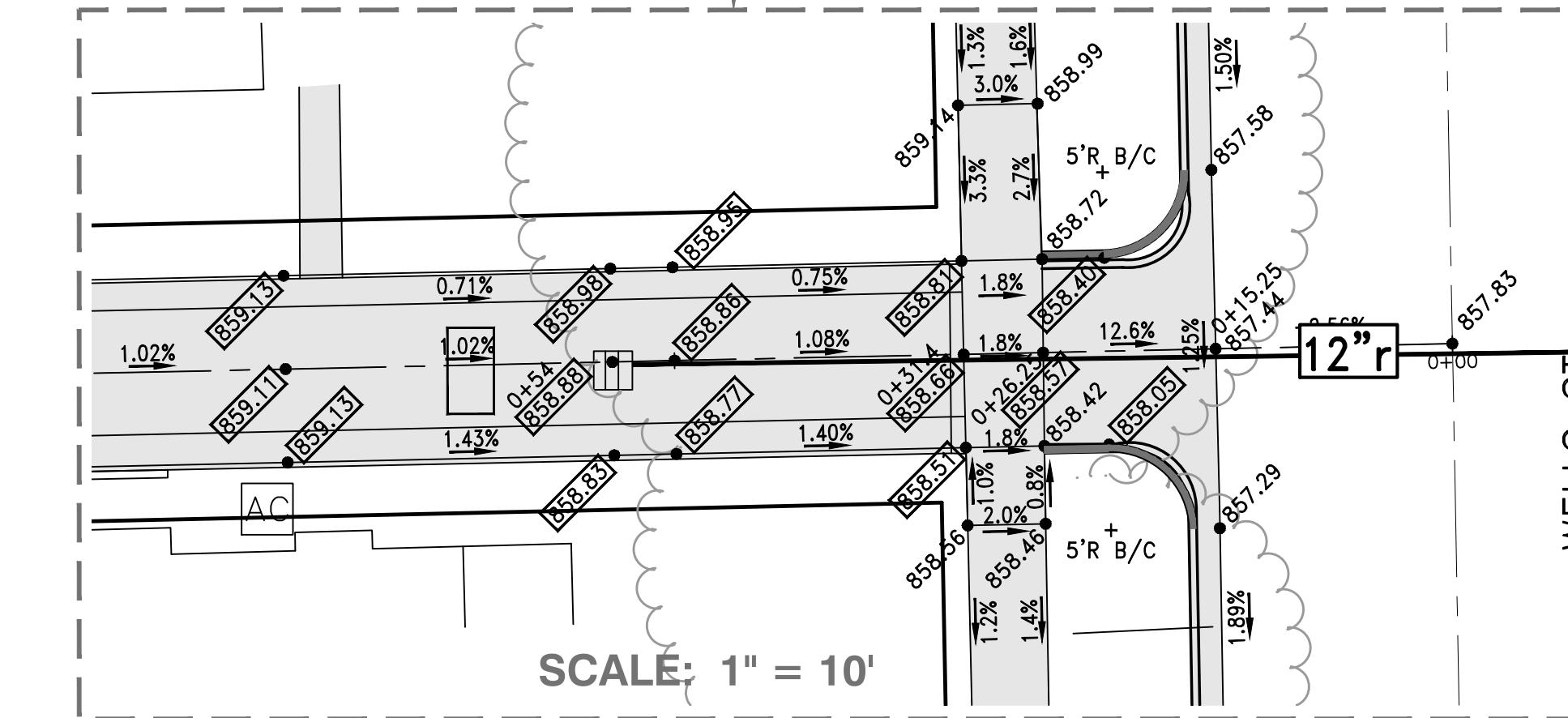
BURNS PARK PERMEABLE ALLEY; BID No. 4134, FILE No. 2010034



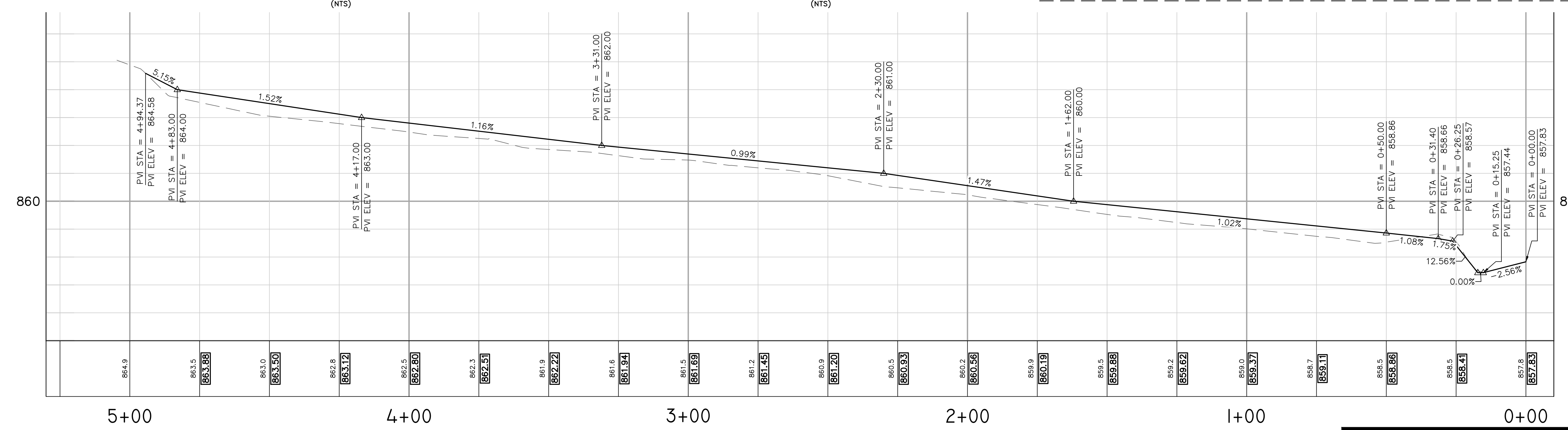
**PERMEABLE CONCRETE TYPICAL CROSS-SECTION**  
(NTS)



**CONCRETE EDGE RESTRAINT DETAIL**  
(NTS)



SCALE: 1" = 10'



**LEGEND**

EXISTING SANITARY SEWER & MANHOLE	PROPOSED SANITARY SEWER & MANHOLE	EXISTING TELEPHONE	EXISTING ROAD CROWN (PROFILE)	EXISTING SIGN
EXISTING STORM SEWER & CATCH BASIN	PROPOSED STORM SEWER & CATCH BASIN	EXISTING GAS LINE	EXISTING LEFT EDGE OF METAL (PROFILE)	EXISTING FIRE HYDRANT
EXISTING WATER MAIN & VALVE-IN-WELL	PROPOSED WATER MAIN & VALVE IN WELL	EXISTING CABLE TELEVISION	EXISTING RIGHT EDGE OF METAL (PROFILE)	EXISTING LIGHT POLE
EXISTING WATER MAIN & VALVE-IN-BOX	PROPOSED WATER MAIN & VALVE IN BOX	EXISTING ELECTRIC	EXISTING EDGE OF GRAVEL	EXISTING END SECTION
EXISTING CONTOUR	PROPOSED CONTOUR	EXISTING FENCE	EXISTING UTILITY POLE & GUY	SOIL BORING

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

**BURNS PARK PERMEABLE ALLEY**

PAVING AND GRADES

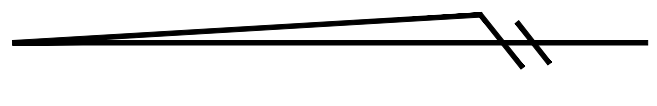
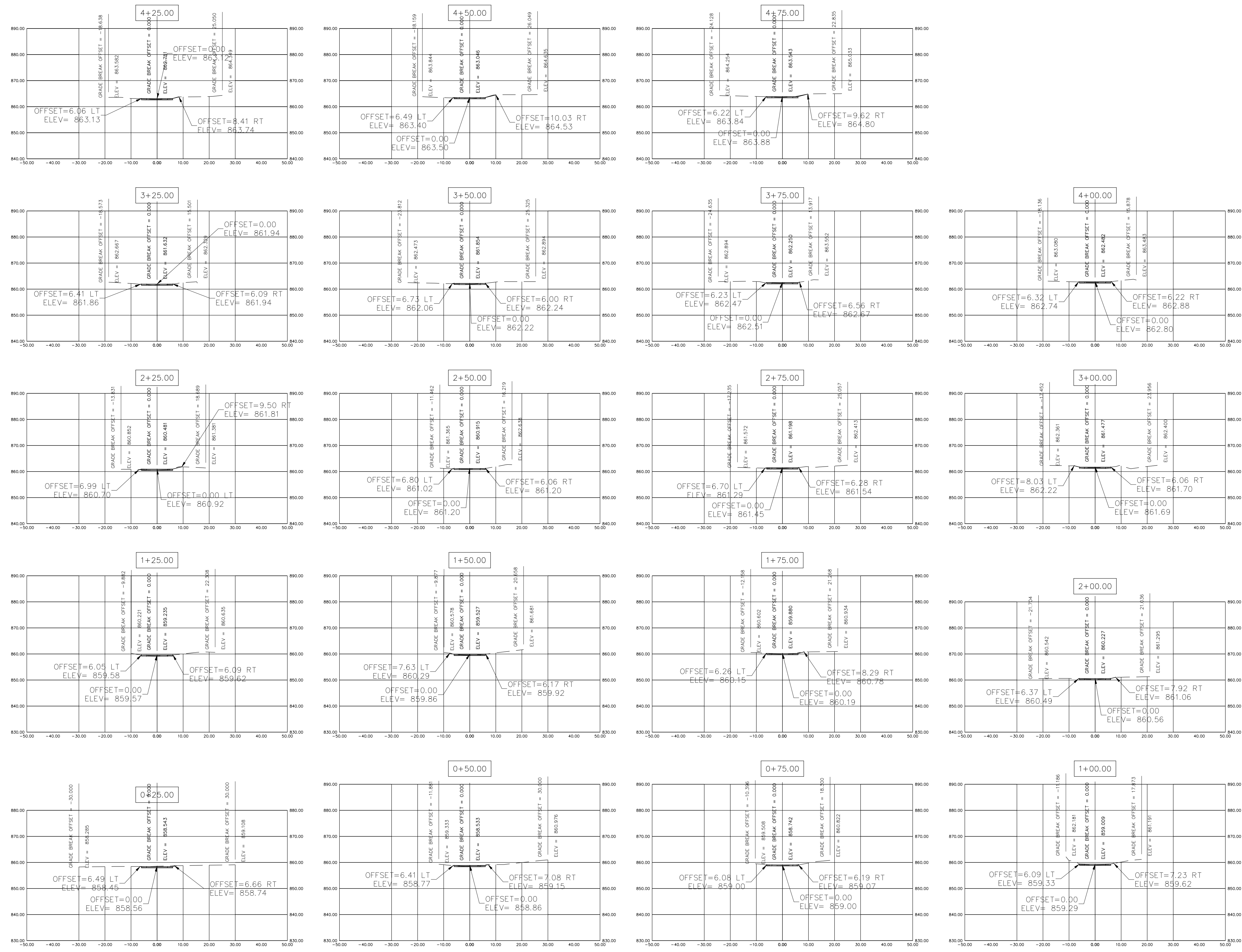
REV. No.	DESCRIPTION	DATE	DRAWN	CHECKED
	ORIGINAL ISSUE	1-7-11	DPF	NH

SCALE  
 0 20 40  
 PLAN: 1" = 20' PROFILE: 1" = 2'

DRAWING No.  
**2010034 - PG**

SHEET No. **2** OF **5**

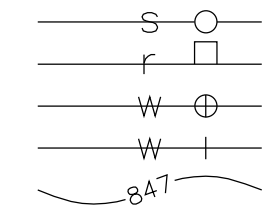
3 WORKING DAYS  
**BEFORE YOU DIG**  
 CALL MISS DIG  
 1 800-482-7171  
 (TOLL FREE)



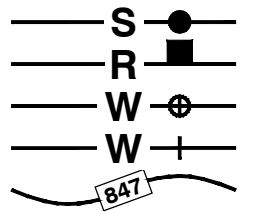
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**LEGEND**

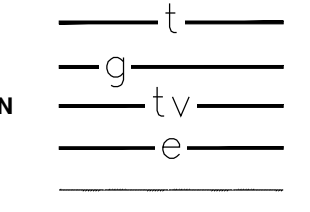
- EXISTING SANITARY SEWER & MANHOLE
- EXISTING STORM SEWER & CATCH BASIN
- EXISTING WATER MAIN & VALVE-IN-WELL
- EXISTING WATER MAIN & VALVE-IN-BOX
- EXISTING CONTOUR



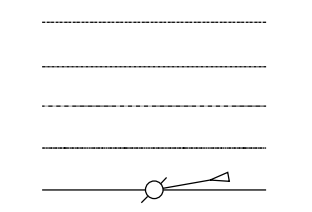
- PROPOSED SANITARY SEWER & MANHOLE
- PROPOSED STORM SEWER & CATCH BASIN
- PROPOSED WATER MAIN & VALVE IN WELL
- PROPOSED WATER MAIN & VALVE IN BOX
- PROPOSED CONTOUR



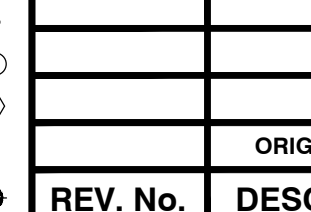
- EXISTING TELEPHONE
- EXISTING GAS LINE
- EXISTING CABLE TELEVISION
- EXISTING ELECTRIC
- EXISTING FENCE



- EXISTING ROAD CROWN (PROFILE)
- EXISTING LEFT EDGE OF METAL (PROFILE)
- EXISTING RIGHT EDGE OF METAL (PROFILE)
- EXISTING EDGE OF GRAVEL
- EXISTING UTILITY POLE & GUY



- EXISTING SIGN
- EXISTING FIRE HYDRANT
- EXISTING LIGHT POLE
- EXISTING END SECTION
- SOIL BORING



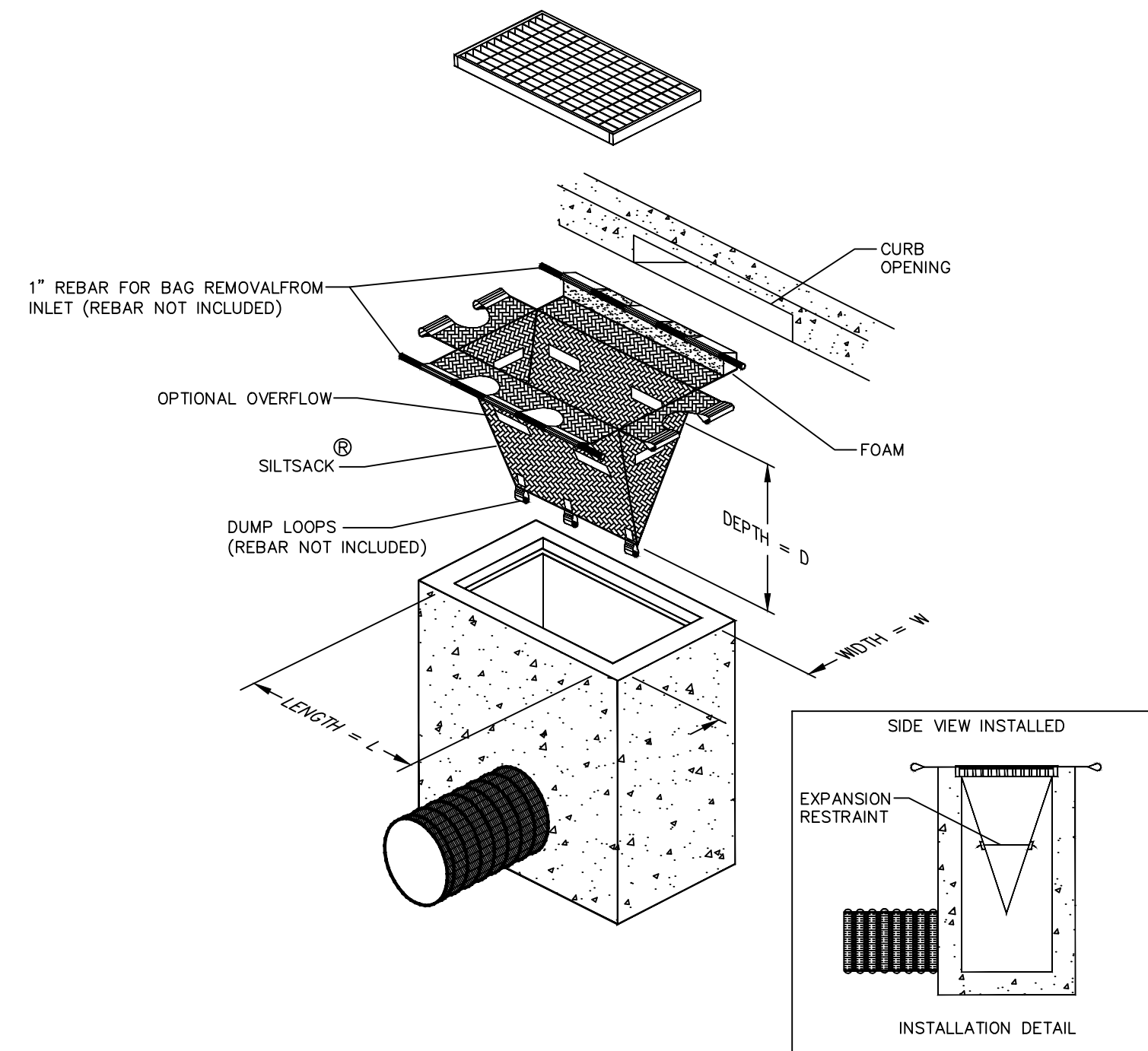
**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**

**BURNS PARK PERMEABLE ALLEY**

**CROSS SECTIONS**

SCALE  
 0 20 40  
 PLAN: 1" = 20' PROFILE: 1" = 2'  
 DRAWING No.  
**2010034 - CS**  
 SHEET No. **3** OF **5**

REV. No.	DESCRIPTION	DATE	DRAWN	CHECKED
	ORIGINAL ISSUE	1-7-11	DPF	NH



**TEMPORARY INLET FILTER (MODIFIED)**

(NTS)

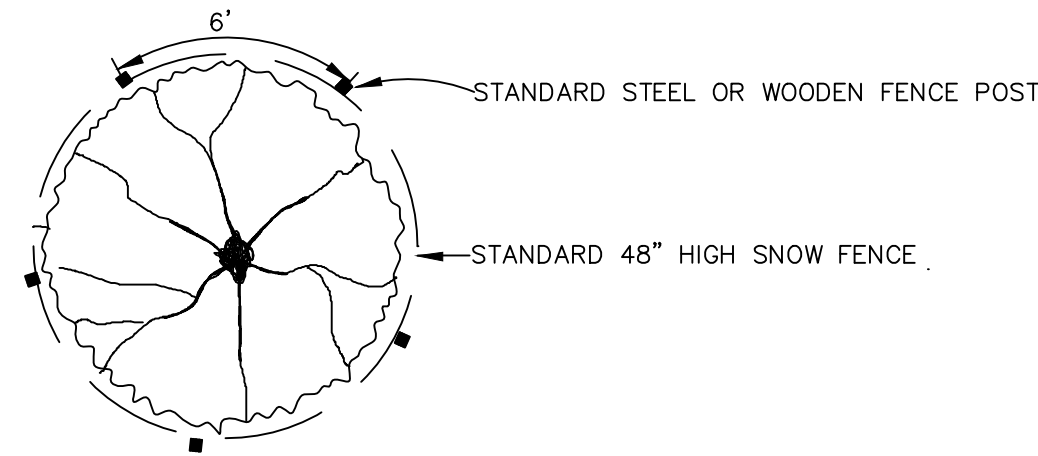
NOTE: TEMPORARY EROSION CONTROL SHOWN ABOVE TO BE INSTALLED IN ALL INLETS WITHIN ONE BLOCK OF THE WORK ZONE, AS DIRECTED BY THE ENGINEER.

**CONSTRUCTION METHOD AND SEQUENCING**

THE WORK TO BE COMPLETED SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING ITEMS. THE ORDER OF CONSTRUCTION SHALL BE AS GIVEN UNLESS OTHERWISE AUTHORIZED OR DIRECTED BY THE ENGINEER.

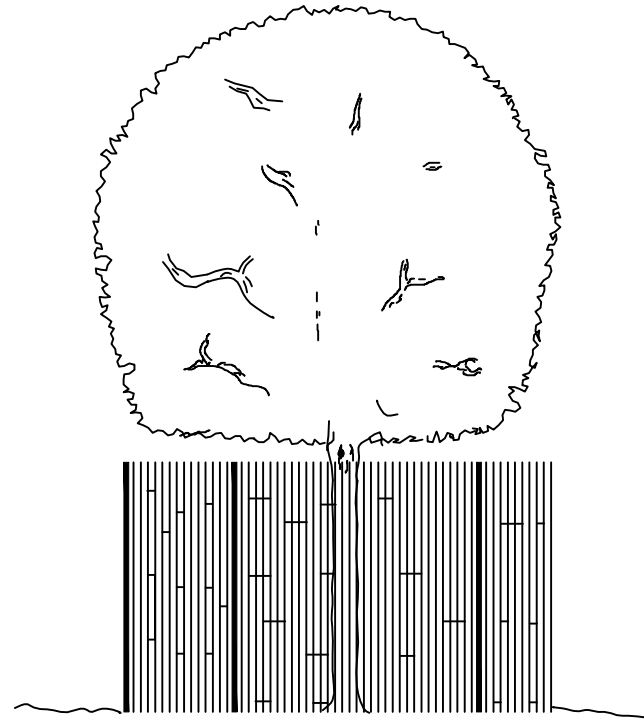
1. IMPLEMENT TRAFFIC MAINTENANCE, TREE PROTECTION, AND SOIL EROSION CONTROLS IN ACCORDANCE WITH THE PLANS, AND THE AS DIRECTED BY THE ENGINEER.
2. PERFORM ALL REMOVALS.
3. EXCAVATE AND BACKFILL INFILTRATION TRENCH.
4. EXCAVATE REMAINDER OF ROAD TO SUBGRADE
5. INSTALL INLET STRUCTURE AND UNDERDRAIN AS SHOWN ON THE PLANS, AND AS DIRECTED BY THE ENGINEER. PRIOR TO REMOVAL OF THE EXISTING INLET STRUCTURE, COORDINATE WITH THE CITY OF ANN ARBOR FIELD SERVICE UNIT IN ORDER TO VIDEOTAPE THE EXISTING STORM SEWER PIPE EXITING FROM THE INLET.
6. INSTALL GEOTEXTILES AND GEOGRIDS.
7. INSTALL AGGREGATE BASE/STONE RESERVOIR.
8. PLACE CONCRETE EDGE RESTRAINTS AND PERFORM ALL ADJACENT IMPERVIOUS CONCRETE WORK.
9. INSTALL PERVIOUS CONCRETE TEST PANELS. RECEIVE APPROVAL FROM THE ENGINEER PRIOR TO FULL INSTALLATION.
10. INSTALL PERVIOUS CONCRETE PAVEMENT.
11. COMPLETE ALL MISCELLANEOUS CONSTRUCTION INCLUDING ALL CLEAN-UP AND FINAL RESTORATION.
12. REMOVE ALL TRAFFIC CONTROL DEVICES, TREE PROTECTION AND SOIL EROSION CONTROL MEASURES.

**PLAN**



**ELEVATION**

SNOW FENCE SHALL BE LOCATED AT THE OUTER PERIMETER OF THE SPREAD OF THE BRANCHES OR CLOSER ONLY AT THE DIRECTION OF THE ENGINEER.



**TREE PROTECTION**

(NTS)

**GENERAL NOTES**

1. TAKE ALL PRECAUTIONS TO SUPPORT UTILITY POLES. COORDINATE WITH APPROPRIATE UTILITY COMPANIES AND MINIMIZE SCHEDULE DELAYS.
2. COMPLETE ALL WORK IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL CODES, RULES AND REGULATIONS. OBTAIN ALL NECESSARY LOCAL, STATE AND FEDERAL PERMITS AND PAY PERMIT FEES FOR THE WORK OR CONFIRM REQUIRED PERMITS HAVE BEEN OBTAINED BY OTHERS PRIOR TO COMMENCING CONSTRUCTION.
3. BE RESPONSIBLE AT ALL TIMES FOR SITE SAFETY IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY AUTHORITY HAVING JURISDICTION.
4. CALL MISS DIG @ 1-800-482-7171 AT LEAST 3 WORKING DAYS PRIOR TO ANY EXCAVATION TO CONFIRM THE LOCATIONS OF EXISTING BURIED UTILITIES. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF NOTIFYING UTILITY OWNERS WHO MAY NOT BE PART OF THE "MISS DIG" ALERT SYSTEM. COORDINATE THE RELOCATION OF EXISTING UTILITIES WITH THE UTILITY OWNER. BE RESPONSIBLE FOR PROTECTING EXISTING UTILITIES AND REPAIRING DAMAGE TO EXISTING UTILITIES RESULTING FROM THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS OF REPAIRING OR REPLACING ANY DAMAGED UTILITIES AT NO EXPENSE TO THE OWNER.
5. INSTALL ALL EROSION CONTROL MEASURES PRIOR TO COMMENCING CONSTRUCTION.
6. PROVIDE TRAFFIC CONTROL BARRICADES, SIGNS, LIGHTS, ETC. IN ACCORDANCE WITH THE LATEST EDITION OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES PART 6 AS NECESSARY FOR THE PROTECTION AND SAFETY OF THE PUBLIC. MAINTAIN THESE DEVICES AT ALL TIMES DURING CONSTRUCTION.
7. MAINTAIN A CLEAN WORK AREA. THOROUGHLY CLEAN AND/OR SWEEP STREETS AND ROADWAYS AS NEEDED AND AS REQUIRED BY THE ENGINEER.
8. MAINTAIN ACCESS TO PROPERTIES FOR POSTAL SERVICE, GARBAGE, RECYCLING AND COMPOST PICK-UP DURING CONSTRUCTION. COORDINATE WITH THE APPROPRIATE JURISDICTIONAL AUTHORITIES. CONDUCT OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. ANY CLOSURE REQUIRES PERMISSION FROM ENGINEER AND COORDINATION WITH PROPERTY OWNERS AND RESIDENTS.
9. RESTORE ALL DISTURBED AREAS NOT COVERED BY OTHER SURFACE TREATMENT WITH 4" TOPSOIL, SEED, FERTILIZER AND MULCH BLANKET.
10. PROTECT EXISTING SITE IMPROVEMENTS AND LANDSCAPING FROM DAMAGE. RESTORE/REPLACE DAMAGED IMPROVEMENTS AND LANDSCAPING TO ORIGINAL CONDITION ACCEPTABLE TO THE ENGINEER.
11. PROTECT TREES AND SHRUBS FROM DAMAGE DURING CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
12. REFER DISCREPANCIES TO THE ENGINEER FOR CLARIFICATION.
13. THE INFORMATION CONTAINED ON THESE DRAWINGS PERTAINING TO EXISTING CONDITIONS, SUCH AS BUT NOT LIMITED TO, UTILITIES, TOPOGRAPHY, SUBSURFACE CONDITIONS, IS FURNISHED SOLELY AS THE BEST INFORMATION AVAILABLE AND ITS ACCURACY IS NOT GUARANTEED. THE USE OF THIS INFORMATION DOES NOT PROVIDE RELIEF FOR THE CONTRACTOR FROM ANY RESPONSIBILITY FOR DAMAGES DUE TO ANY INACCURACIES.
14. ALL REMOVED MATERIALS ARE THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE NOTED IN CONTRACT DOCUMENTS OR AS DIRECTED BY THE ENGINEER. CLEANUP AND DISPOSE OF ALL EXCESS MATERIALS OFF SITE AT A LOCATION DESIGNATED FOR THIS USE AND IN ACCORDANCE WITH LOCAL REGULATIONS.
15. USE (2) TWO BENCH MARKS FOR VERIFICATION OF ALL CONSTRUCTION ELEVATIONS. SET ADDITIONAL BENCH MARKS TO COMPLY WITH THIS REQUIREMENT.
16. TRANSVERSE CONTRACTION JOINTS SHALL BE INSTALLED IN THE PAVEMENT AT A MAXIMUM OF EVERY 10 FEET AND SHALL BE IN LINE WITH THE PLANE OF WEAKNESS JOINTS IN THE CONCRETE EDGE RESTRAINTS. PLANE OF WEAKNESS JOINTS IN THE EDGE RESTRAINT ON ONE SIDE OF THE ALLEY SHALL BE ALIGNED PERPENDICULARLY WITH THE JOINTS IN THE EDGE RESTRAINT ON THE OPPOSITE SIDE OF THE ALLEY.
17. THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS PER THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED BY ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.
18. RESTORE ALL STREET SURFACES, DRIVEWAYS, STAGING AREAS, CULVERTS, ROADSIDE DRAINAGE DITCHES, AND OTHER PUBLIC OR PRIVATE STRUCTURES THAT ARE DISTURBED OR DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES TO A CONDITION EQUAL TO OR BETTER THAN EXISTING CONDITIONS AND TO THE SATISFACTION OF THOSE HAVING JURISDICTION, UNLESS NOTED OTHERWISE IN THE PLANS.

3 WORKING DAYS |  
**BEFORE YOU DIG**  
CALL MISS DIG  
1 800-482-7171  
(TOLL FREE)

**LEGEND**

EXISTING SANITARY SEWER & MANHOLE		PROPOSED SANITARY SEWER & MANHOLE		EXISTING TELEPHONE		EXISTING ROAD CROWN (PROFILE)		EXISTING SIGN	
EXISTING STORM SEWER & CATCH BASIN		PROPOSED STORM SEWER & CATCH BASIN		EXISTING GAS LINE		EXISTING LEFT EDGE OF METAL (PROFILE)		EXISTING FIRE HYDRANT	
EXISTING WATER MAIN & VALVE-IN-WELL		PROPOSED WATER MAIN & VALVE IN WELL		EXISTING CABLE TELEVISION		EXISTING RIGHT EDGE OF METAL (PROFILE)		EXISTING LIGHT POLE	
EXISTING WATER MAIN & VALVE-IN-BOX		PROPOSED WATER MAIN & VALVE IN BOX		EXISTING ELECTRIC		EXISTING EDGE OF GRAVEL		EXISTING END SECTION	
EXISTING CONTOUR		PROPOSED CONTOUR		EXISTING FENCE		EXISTING UTILITY POLE & GUY		SOIL BORING	

**PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR**

**BURNS PARK PERMEABLE ALLEY**

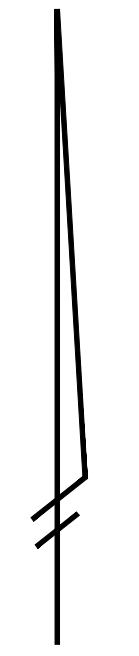
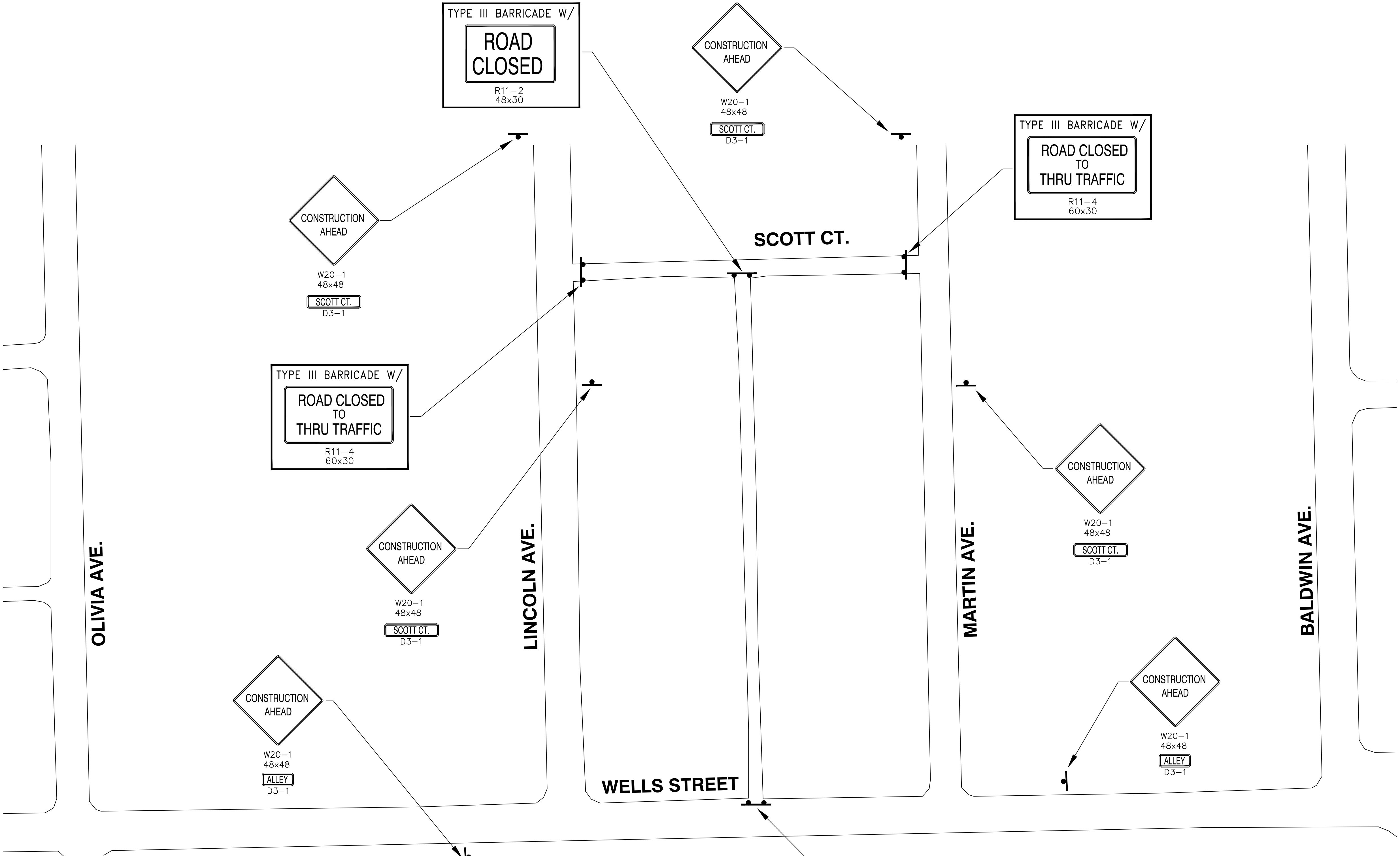
**DETAILS & NOTES**

SCALE: NTS

DRAWING No.  
**2010034 - DN**

SHEET No. **4** OF **5**

REV. No.	DESCRIPTION	DATE	DRAWN	CHECKED
		1-7-11	DPF	NH



3 WORKING DAYS  
BEFORE YOU DIG  
CALL MISS DIG  
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(TOLL FREE)

PROJECT MANAGEMENT - PUBLIC SERVICES - CITY OF ANN ARBOR

**BURNS PARK PERMEABLE ALLEY**

TRAFFIC CONTROL

SCALE  
0 50 100  
PLAN: 1" = 50'  
DRAWING No.  
**2010034 - TC**  
SHEET No. **5** OF **5**

REV. No.	DESCRIPTION	DATE	DRAWN	CHECKED

ORIGINAL ISSUE 1-7-11 DPF NH