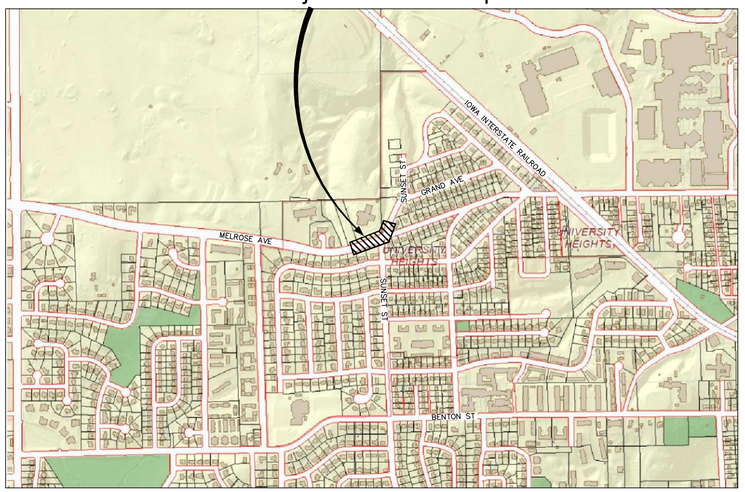
ONE UNIVERSITY PLACE - PUBLIC IMPROVEMENTS

UNIVERSITY HEIGHTS, IOWA

Project Location Map



Location Map Not To Scale

STANDARD LEGEND AND NOTES

- PROPERTY &/or BOUNDARY LINES
- CONGRESSIONAL SECTION LINES
- RIGHT-OF-WAY LINES
- EXISTING RIGHT-OF-WAY LINES
- CENTER LINES
- EXISTING CENTER LINES
- LOT LINES, INTERNAL
- LOT LINES, PLATTED OR BY DEED
- PROPOSED EASEMENT LINES
- EXISTING EASEMENT LINES
- BENCHMARK
- (R) RECORDED DIMENSIONS
- 22-1 CURVE SEGMENT NUMBER

-EXIST-	-PROP-	
		POWER POLE
		POWER POLE W/DROP
		POWER POLE W/TRANS
		POWER POLE W/LIGHT
		GUY POLE
		LIGHT POLE
		SANITARY MANHOLE
		FIRE HYDRANT
		WATER VALVE
		DRAINAGE MANHOLE
		CURB INLET
		FENCE LINE
		EXISTING SANITARY SEWER
		PROPOSED SANITARY SEWER
		EXISTING STORM SEWER
		PROPOSED STORM SEWER
W		WATER LINES
E		ELECTRICAL LINES
T		TELEPHONE LINES
G		GAS LINES
		CONTOUR LINES (1' INTERVAL)
		PROPOSED GROUND
		EXISTING TREE LINE
		EXISTING DECIDUOUS TREE & SHRUB
		EXISTING EVERGREEN TREES & SHRUBS

THE ACTUAL SIZE AND LOCATION OF ALL PROPOSED FACILITIES SHALL BE VERIFIED WITH CONSTRUCTION DOCUMENTS, WHICH ARE TO BE PREPARED AND SUBMITTED SUBSEQUENT TO THE APPROVAL OF THIS DOCUMENT.

Sheet Index

1.	COVER SHEET
2.	DETAILS
3.	DETAILS AND OFFSITE TEMPORARY SIDEWALK GRADING
4.	DEMOLITION PLAN
5.	GRADING AND UTILITY PLAN
6.	DIMENSION PLAN
7.	PAVEMENT JOINTING PLAN
8.	STRIPING AND SIGNAGE PLAN
9.	TRAFFIC CONTROL PLAN: PHASE 1 & 7
10.	TRAFFIC CONTROL PLAN: PHASE 2
11.	TRAFFIC CONTROL PLAN: PHASE 3
12.	TRAFFIC CONTROL PLAN: PHASE 4
13.	TRAFFIC CONTROL PLAN: PHASE 5
14.	TRAFFIC CONTROL PLAN: PHASE 6
15.	TRAFFIC CONTROL PLAN: WESTBOUND DETOUR ROUTE FOR PHASES 2 AND 3

BENCHMARK INFORMATION
BM NO. 1
CUT "X" SET ON THE BACK OF A 4' CONCRETE SIDEWALK, LOCATED IN THE SOUTH RIGHT OF WAY OF MELROSE AVENUE, IN LINE WITH THE EAST BACK OF CURB LINE OF BIRKDALE COURT, AND 22.8'± EAST/NORTHEAST OF A POWER POLE WITH A TRANSFORMER. ELEVATION: 776.60 (NAVD 88) DATUM
BM NO. 2
CUT "X" SET IN THE MIDDLE OF AN INTAKE, AT THE BACK OF CURB LINE. SAID INTAKE IS LOCATED ON THE NORTH EDGE OF MELROSE AVENUE, 52'± WEST OF THE ENTRANCE TO ST. ANDREWS CHURCH, 1300 MELROSE AVENUE, IOWA CITY. ELEVATION: 779.55 (NAVD 88) DATUM

HORIZONTAL CONTROL			
POINT	NORTHING	EASTING	DESCRIPTION
H1	1947.03	1751.85	SEE BENCHMARK NO. 1 DESCRIPTION.
H2	2010.77	2204.91	CUT "X" SET ON THE FACE OF A 4' CONCRETE SIDEWALK, LOCATED IN THE SOUTH RIGHT OF WAY OF MELROSE AVENUE, WHERE SAID SIDEWALK TAPERS SOUTH TO STAY PARALLEL WITH THE RIGHT TURN LANE, 112.8'± EAST OF THE ENTRANCE TO ST. ANDREWS CHURCH, 1300 MELROSE AVENUE, IOWA CITY.
H3	2415.97	2573.71	CUT "X" SET IN THE MIDDLE OF A 4' CONCRETE SIDEWALK, LOCATED IN THE SOUTH RIGHT OF WAY OF SUNSET STREET, SAID "X" BEING 203.9'± NORTH OF THE NORTH EDGE OF A DRIVE FOR A RESIDENCE WITH AN ADDRESS OF 104 SUNSET STREET, IOWA CITY.

UTILITIES

THE CONTRACTOR SHALL NOTIFY IOWA ONE CALL NO LESS THAN 48 HRS. IN ADVANCE OF ANY DIGGING OR EXCAVATION.

IOWA ONE CALL 811

WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THESE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THERE MAY BE OTHERS, THE EXISTENCE OF WHICH IS PRESENTLY NOT KNOWN OR SHOWN. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK.

LICENSED PROFESSIONAL ENGINEER
RONALD L AMELON 14201
IOWA

I hereby certify that this engineering document was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

_____ 20____

RONALD L AMELON, P.E. Iowa Lic. No. 14201

My license renewal date is December 31, 20____.

Pages or sheets covered by this seal:

SEAL

DRAFT

MMS CONSULTANTS, INC.
CIVIL ENGINEERS
LAND PLANNERS
LAND SURVEYORS
LANDSCAPE ARCHITECTS
ENVIRONMENTAL SPECIALISTS
1917 S. GILBERT ST.
IOWA CITY, IOWA 52240
(319) 351-8282
www.mmsconsultants.net

Date	Revision
08/07/15	90% CONSTRUCTION SET
10/27/15	PER CITY COMMENTS -JJR
11/04/15	PER CITY COMMENTS -JJR/MAK
01/08/15	PER CITY COMMENTS -PVA/MAK

COVER SHEET

ONE UNIVERSITY PLACE
PUBLIC IMPROVEMENTS

UNIVERSITY HEIGHTS
JOHNSON COUNTY
STATE OF IOWA

MMS CONSULTANTS, INC.

Date:	7-27-2015
Designed by: RLA	Field Book No.:
Drawn by: MAK	Scale: N/A
Checked by: RLA	Sheet No.: 1
Project No.: IOWA CITY 5136012	of: 15

C:\MMS\Projects\5136012\Civil\5136012-Cover Sheet.dwg, 1/7/2016 4:15:09 PM, mak

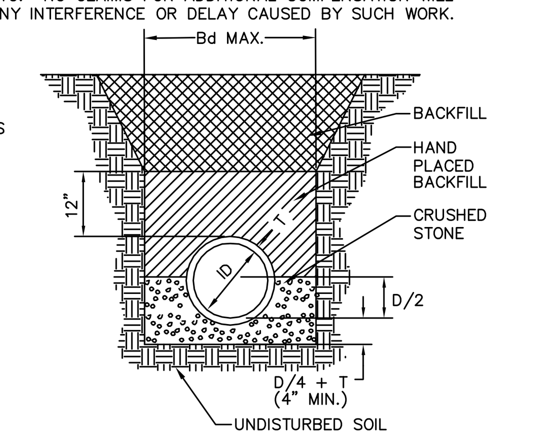
STORM SEWER CONSTRUCTION NOTES

1) CITY OF UNIVERSITY HEIGHTS DESIGN AND CONSTRUCTION STANDARDS AND PROCEDURES PREVAIL. ALL MANHOLE AND INTAKE CASTINGS SHALL HAVE THE WORDS "STORM SEWER" CAST INTO THE LID.
2) ALL STORM SEWERS SHALL BE CLASS 3 RCP UNLESS NOTED OTHERWISE IN THE PLANS.
3) AT PLACES WHERE A FLARED END SECTION IS REQUIRED, PIPE LENGTH INCLUDES THE FLARED END. THE LAST TWO JOINTS ARE TO BE TIED WHERE FLARED END SECTIONS ARE REQUIRED.
4) ALL STORM SEWERS SHALL BE PROVIDED WITH CLASS "B" BEDDING, UNLESS NOTED OTHERWISE.
5) STORM SEWER TRENCHES SHADED ON THE PROFILE VIEW SHALL BE BACKFILLED WITH EITHER OF THE FOLLOWING COMPACTED TO 95% STANDARD PROCTOR DENSITY:
   A. SUITABLE EXCAVATED MATERIAL. IF EXCAVATED MATERIAL IS NOT SUITABLE, THEN
   B. CRUSHED STONE AS SPECIFIED FOR GRANULAR TRENCH BACKFILL SHALL BE USED.
6) GRANULAR TRENCH BACKFILL SHALL BE CRUSHED STONE CONFORMING TO I.D.O.T. STANDARD SPECIFICATION 4120.04 WITH 1" MAXIMUM AGGREGATE SIZE. COMPACT TO 95% STANDARD PROCTOR DENSITY.
7) THE ENTIRE DEPTH OF TRENCH FOR STORM SEWERS UNDER PUBLIC STREET PAVEMENT SHALL BE BACKFILLED WITH CLASS "A" CRUSHED STONE.
8) ALL STORM SEWERS SHALL HAVE CONFINED "O" RING GASKETS OR PROFILE GASKETS. STORM SEWERS 36" AND SMALLER SHALL HAVE BELL AND SPIGOT JOINTS. STORM SEWERS LARGER THAN 36" MAY HAVE TONGUE AND GROOVE JOINTS. NO MASTIC JOINTS ALLOWED.
9) ALL PIPE SHALL BE CERTIFIED.
10) ALL STORM INTAKES SHALL BE A MINIMUM OF 48 INCHES FROM TOP OF CURB/RIM TO SUBGRADE. IF INVERT ELEVATIONS ARE INSUFFICIENT TO PROVIDE THIS REQUIRED DEPTH, THE CONTRACTOR TO PROVIDE DEEPER STRUCTURE AND POUR CONCRETE FILLET IN INTAKE TO MAKE INTAKE PIPES DRAIN AT INVERT ELEVATIONS LISTED.
11) LIFT HOLES IN STORM SEWER WILL NOT BE ALLOWED.
12) PROVIDE CONCRETE FILLETS IN ALL NEW & EXISTING DRAINAGE STRUCTURES PER REFERENCED DETAILS.
13) CONTRACTOR SHALL PROVIDE A 5 YEAR MAINTENANCE BOND FOR ALL PUBLIC STORM SEWER.

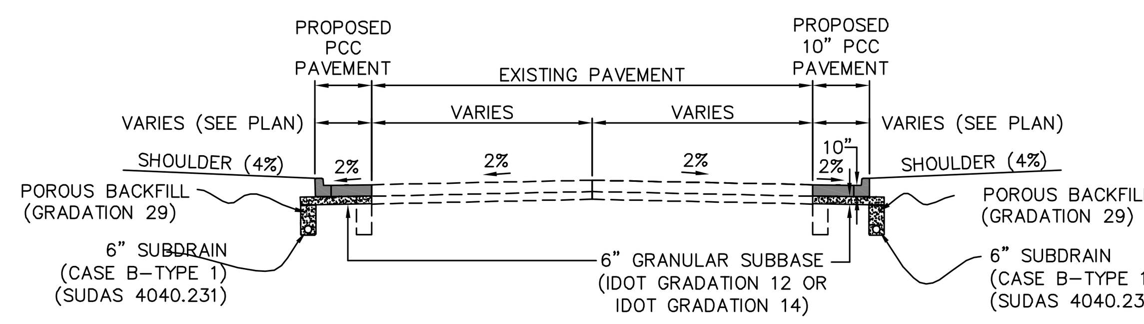
WHERE PUBLIC UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS, OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THOSE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THAT THERE MAY BE OTHER FACILITIES IN THE CONSTRUCTION AREA, THE EXISTENCE OF WHICH IS NOT PRESENTLY KNOWN OR SHOWN HEREON. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION, AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK.

NOTES:
1. PIPE SHALL BE PLACED ON CRUSHED STONE MATERIAL.
2. BELL HOLES SHALL BE HAND SHAPED SO THAT ONLY PIPE BARREL RECEIVES BEARING PRESSURE.
3. PLACE BEDDING TO ENSURE THAT THERE ARE NO VOIDS UNDER OR ALONGSIDE THE LENGTH OF PIPE.
4. BACK FILL SHALL BE HAND TAMPED UP TO 12" ABOVE TOP OF PIPE.
5. SEE TABLE FOR ALLOWABLE TRENCH WIDTH Bd.

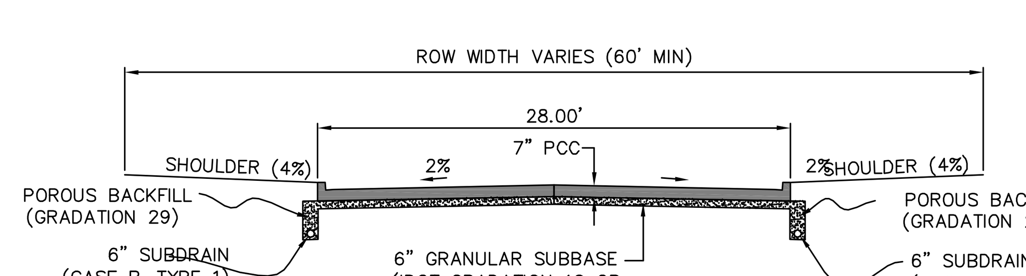
ID INCHES	Bd FEET & INCHES
12	2–3
15	2–9
18	3–0
21	3–3
24	3–6
27	4–0
30	4–3
36	4–9
42	5–6



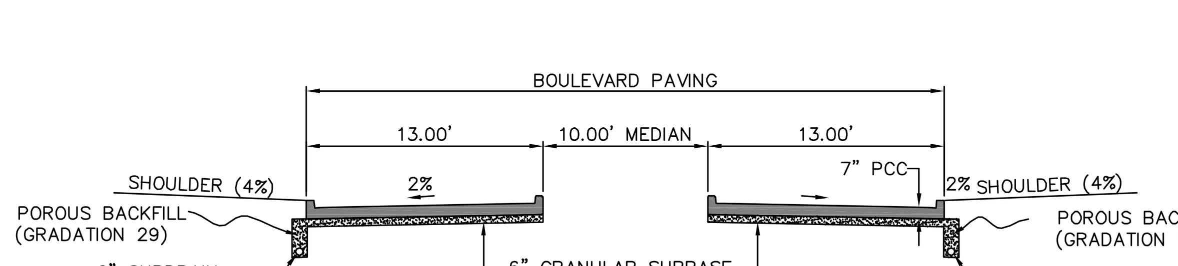
CLASS "B" BEDDING
NTS



TYPICAL MELROSE PAVEMENT SECTION
N.T.S.

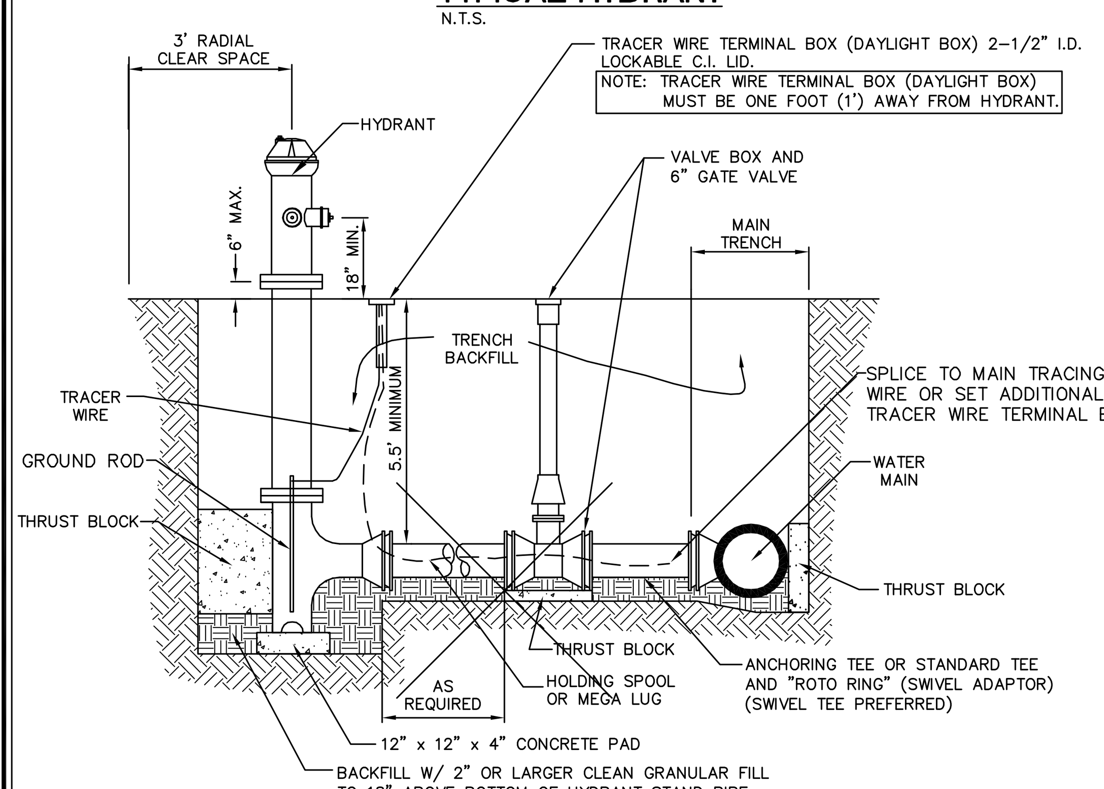


TYPICAL SUNSET (NON BOULEVARD) PAVEMENT SECTION
N.T.S.

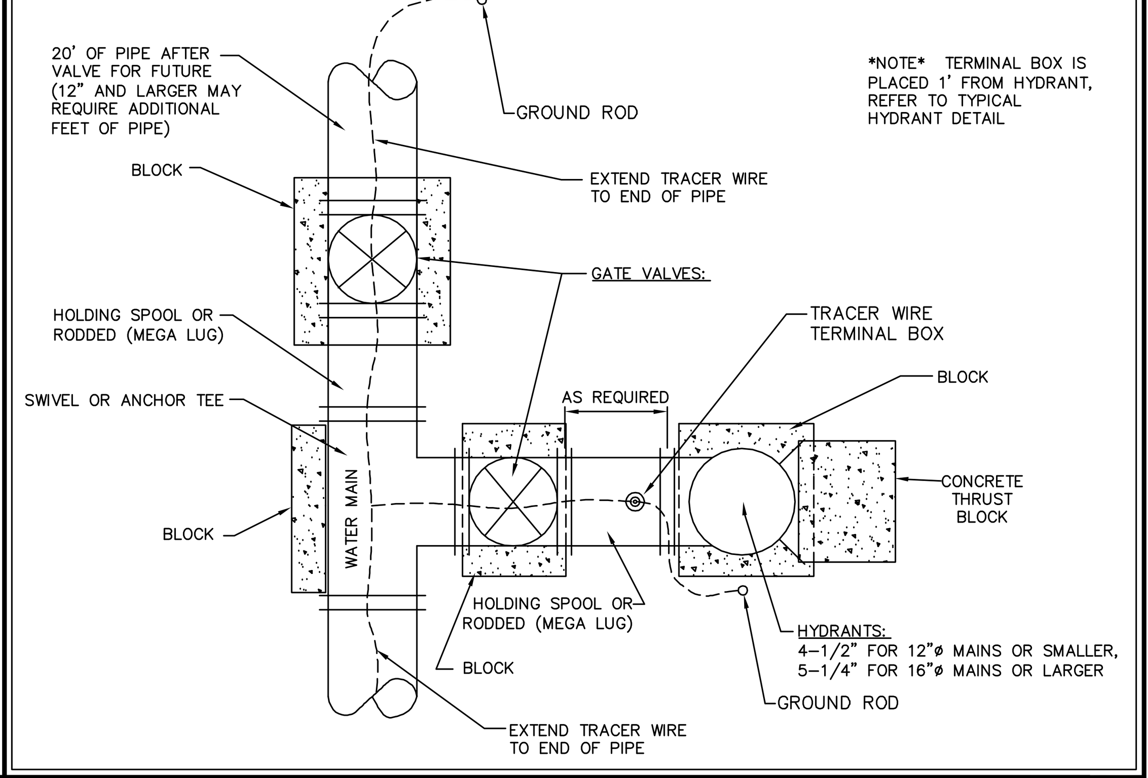


TYPICAL SUNSET (BOULEVARD) PAVEMENT SECTION
N.T.S.

TYPICAL HYDRANT
N.T.S.

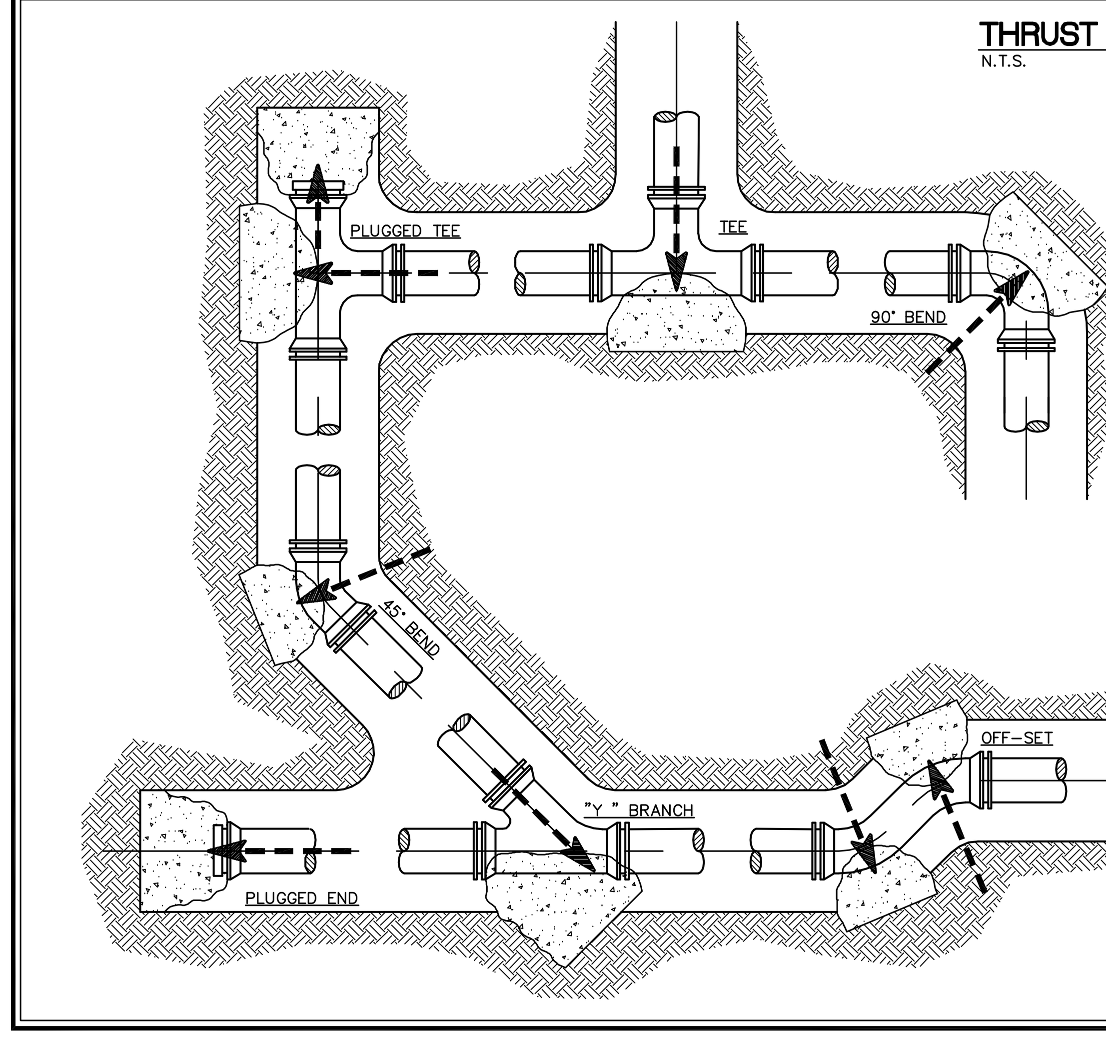


HYDRANT DETAIL FOR FUTURE WATER MAIN EXTENSION
N.T.S.



NOTE TERMINAL BOX IS PLACED 1' FROM HYDRANT, REFER TO TYPICAL HYDRANT DETAIL

THRUST BLOCK DETAIL
N.T.S.



THRUST BLOCKS ARE REQUIRED AT PIPING DIRECTION CHANGES, AT DEAD ENDS, AND AT FIRE HYDRANTS. THRUST BLOCKS MAY BE PRECAST MASONRY UNITS, CAST IN PLACE CONCRETE. CAST–IN–PLACE CONCRETE SHALL NOT BE USED AT FIRE HYDRANTS.

POURED–IN–PLACE CONCRETE SHALL BE 2000 P.S.I. MINIMUM STRENGTH, A MINIMUM OF 18 INCHES THICK, AND SHALL BE CAST AGAINST A SOLID, UNDISTURBED EDGE OF TRENCH FOR BEARING. NO BOLTS, JOINTS OR DRAIN HOLES SHALL COME INTO CONTACT WITH THE CONCRETE THRUST BLOCK AND THE PIPE SHALL BE WRAPPED WITH A PLASTIC SHEET AT THE CONCRETE BEARING SURFACES. THE MINIMUM THICKNESS OF ANY THRUST BLOCK SHALL BE 18 INCHES.

THRUST BLOCK MINIMUM BEARING SURFACE AREA (IN SQUARE FEET)

PIPE SIZE	DEAD END OR TEE	90° BEND	45° BEND	11–1/4 OR 22–1/2 BEND
4"	3.0	4.0	2.0	1.5
6"	6.0	8.0	4.5	2.5
8"	10.0	14.0	7.5	4.0
10"	14.5	20.5	11.0	6.0
12"	20.5	29.0	16.0	8.0
14"	27.5	39.0	21.0	11.0
16"	35.5	50.5	27.5	14.0
20"	55.0	78.0	42.0	21.5
24"	78.5	111.0	60.0	30.5

SANITARY SEWER AND WATER MAIN CONSTRUCTION NOTES

1) SANITARY SEWER AND WATER MAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
   CITY OF IOWA CITY DESIGN AND CONSTRUCTION STANDARDS AND PROCEDURES SHALL PREVAIL.
2) CONTRACTOR SHALL PROVIDE CRUSHED STONE ENCASEMENT BEDDING FOR ALL SANITARY SEWER UNLESS NOTED OTHERWISE ON THE PLANS.
3) SANITARY SEWERS TO BE PVC TRUSS PIPE UNLESS NOTED OTHERWISE. SANITARY SEWER SERVICE LINES SHALL BE PVC, SDR 23.5 WITH GASKETED JOINTS.
4) CONTRACTOR TO PROVIDE CLOW "BAND–SEAL" COUPLINGS FOR DISSIMILAR PIPE CONNECTIONS.
5) 6" AND 8" DIAMETER WATER MAINS SHALL BE DR–18 PVC PIPE, EXCEPT UNDER PUBLIC ROADWAYS AND ALONG SMALL RADIUS CURVES WHERE CLASS 52 DIP SHALL BE USED, UNLESS OTHERWISE NOTED ON THE PLANS. ALL FITTINGS FOR WATER MAIN SHALL BE RESTRAINED WITH BOTH MEGA–LUGS AND THRUST BLOCKS.
6) GRANULAR TRENCH BACKFILL SHALL BE CLASS A CRUSHED STONE CONFORMING TO I.D.O.T. STANDARD SPECIFICATION 4120.04 WITH 1" MAXIMUM AGGREGATE SIZE. COMPACT TO 95% STANDARD PROCTOR DENSITY.
7) WATER MAINS WITHIN STREET RIGHT OF WAYS OR WITHIN EASEMENTS ADJACENT TO THE STREET RIGHT OF WAYS SHALL BE BACKFILLED WITH EITHER OF THE FOLLOWING COMPACTED TO 95% STANDARD PROCTOR DENSITY:
   A. SUITABLE EXCAVATED MATERIAL. IF EXCAVATED MATERIAL IS NOT SUITABLE, THEN
   B. CRUSHED STONE AS SPECIFIED FOR GRANULAR TRENCH BACKFILL SHALL BE USED.
8) THE ENTIRE DEPTH OF TRENCH FOR SANITARY SEWERS AND WATER MAINS LOCATED UNDER STREET PAVEMENT SHALL BE BACKFILLED WITH CLASS A CRUSHED STONE.
9) ALL SANITARY SEWER SERVICE LINES CROSSING STREET RIGHT–OF–WAY SHALL BE BACKFILLED IN ACCORDANCE WITH THE PRECEDING NOTE.

THE FOLLOWING MINIMUM CLEARANCES MUST BE MAINTAINED :

10) WATER MAIN SHALL BE LOCATED 10 FEET HORIZONTALLY DISTANT FROM ALL SANITARY SEWER AND STORM SEWER.
11) WATER MAIN SHALL NOT PASS THROUGH NOR CONTACT A SEWER OR A SEWER MANHOLE. A MINIMUM HORIZONTAL SEPARATION OF 3 FEET SHALL BE MAINTAINED.
12) VERTICAL SEPARATION OF WATER MAINS CROSSING OVER ANY SANITARY SEWER SHOULD BE A MINIMUM OF 18–INCHES, MEASURED OUTSIDE TO OUTSIDE FROM THE CLOSEST EDGE OF EACH PIPE. IF PHYSICAL CONDITIONS PROHIBIT THIS SEPARATION, THE WATER MAIN SHALL NOT BE PLACED CLOSER THAN 6–INCHES ABOVE A SEWER OR 18–INCHES BELOW A SEWER. THE SEPARATION DISTANCE SHALL BE THE MAXIMUM FEASIBLE IN ALL CASES. WHERE THE SEWER CROSSES OVER OR LESS THAN 18 INCHES BELOW A WATER MAIN ONE FULL LENGTH OF SEWER PIPE OF WATER MAIN MATERIAL SHALL BE LOCATED SO BOTH JOINTS ARE AS FAR AS POSSIBLE FROM THE WATER MAIN. THE SEWER AND WATER PIPES MUST BE ADEQUATELY SUPPORTED AND HAVE WATERTIGHT JOINTS. A LOW PERMEABILITY SOIL SHALL BE USED FOR BACKFILL MATERIAL WITHIN 10 FEET OF THE POINT OF CROSSING.
13) WHERE THE WATER MAIN CROSSES SEWER, ONE FULL LENGTH OF WATER PIPE SHALL BE LOCATED SO BOTH JOINTS ARE AS FAR AS POSSIBLE FROM THE SEWER. THE WATER AND SEWER PIPES MUST BE ADEQUATELY SUPPORTED AND HAVE WATER TIGHT JOINTS. A LOW PERMEABILITY SOIL SHALL BE USED FOR BACKFILL MATERIAL WITHIN 10–FEET OF THE POINT OF CROSSING.
14) NOMINAL DEPTH OF WATER MAIN = 5.5 FEET TO TOP OF PIPE.
15) ALL SANITARY SEWER AND SERVICE LINES SHALL BE AIR TESTED TO PASS THE FOLLOWING TEST:

AIR TESTING

A. PERFORM FROM MANHOLE–TO–MANHOLE AFTER BACKFILL.
B. PLACE PNEUMATIC PLUGS: (1) SEALING LENGTH: EQUAL TO OR GREATER THAN PIPE DIAMETER, (2) CAPABLE OF RESISTING INTERNAL TEST PRESSURE WITHOUT EXTERNAL BRACING OR BLOCKING.
C. INTRODUCE LOW–PRESSURE AIR INTO SEALED LINE AND ACHIEVE INTERNAL AIR PRESSURE 4 PSIG GREATER THAN MAXIMUM PRESSURE EXERTED BY GROUNDWATER ABOVE PIPE INVERT.
D. LIMIT INTERNAL PRESSURE IN SEALED LINE BELOW 8 PSIG.
E. ALLOW 2 MINUTES MINIMUM FOR AIR PRESSURE TO STABILIZE. DISCONNECT LOW–PRESSURE AIR HOSE FROM CONTROL PANEL.
F. MINIMUM TIME FOR PRESSURE TO DROP FROM 3.5 TO 2.5 PSIG GREATER THAN MAXIMUM PRESSURE EXERTED BY GROUNDWATER ABOVE PIPE INVERT:

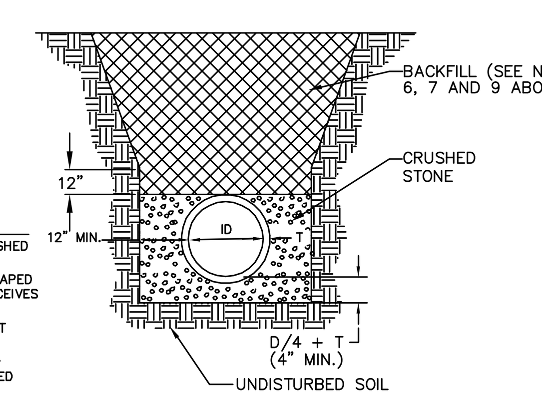
PIPE DIAMETER, INCHES	MINIMUM TIME, min:s	LENGTH FOR MINIMUM TIME, ft	TIME FOR LONGER LENGTH, S
4	3:46	597	0.380 L
6	5:40	398	0.854 L
8	7:34	298	1.520 L
10	9:26	239	2.374 L
12	11:20	199	3.418 L
15	14:10	159	5.342 L
18	17:00	133	7.692 L
21	19:50	114	10.470 L
24	22:40	99	13.674 L
27	25:30	88	17.306 L
30	28:20	80	21.366 L
33	31:10	72	25.852 L
36	34:00	66	30.768 L

G. IN AREAS WHERE GROUND WATER IS KNOWN TO EXIST, THE HEIGHT OF WATER ABOVE THE TOP OF THE PIPE BEING TESTED, IN FEET, SHALL BE DETERMINED AND THAT HEIGHT DIVIDED BY 2.3 TO ESTABLISH THE PRESSURE THAT WILL BE ADDED TO ALL READINGS ABOVE. ALTERNATIVELY, THE ENGINEER MAY ALLOW THE CONTRACTOR TO MEASURE INFILTRATION INTO THE SEWER BY USING A V–NOTCH WEIR OR OTHER SUITABLE DEVICE.
H. LOCATE, REPAIR AND RETEST LEAKS.
I. AIR TESTING SHALL BE CONSIDERED INCIDENTAL TO SANITARY SEWER CONSTRUCTION.

16) ALL PVC TRUSS SEWERS SHALL HAVE A DEFLECTION TEST PERFORMED AS FOLLOWS:
   A. DEFLECTION TEST SHALL BE CONDUCTED AFTER THE FINAL BACKFILL HAS BEEN IN PLACE AT LEAST 30 DAYS.
   B. DEFLECTION TEST TO BE CONDUCTED USING A RIGID BALL OR MANDREL WITH A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. NO MECHANICAL PULLING DEVICES ALLOWED.
   C. NO PIPE SHALL EXCEED A DEFLECTION OF 5%.
17) MANHOLE FRAME AND LID TO BE NEENAH R–1642 SELF SEALING OR APPROVED EQUAL,

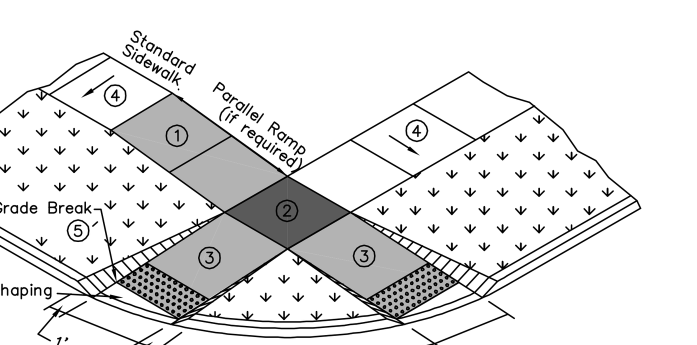
ID INCHES	Bd FEET & INCHES
4	2–0
6	2–0
8	2–3
10	2–3
12	2–3
15	2–9
18	3–0
21	3–3
24	3–6

NOTES:
1. PIPE SHALL BE PLACED ON CRUSHED STONE MATERIAL.
2. BELL HOLES SHALL BE HAND SHAPED SO THAT ONLY PIPE BARREL RECEIVES BEARING PRESSURE.
3. PLACE BEDDING TO ENSURE THAT THERE ARE NO VOIDS UNDER OR ALONGSIDE THE LENGTH OF PIPE.
4. BACKFILL SHALL BE HAND TAMPED UP TO 12" ABOVE TOP OF PIPE.
5. SEE TABLE FOR ALLOWABLE TRENCH WIDTH Bd.



CRUSHED STONE ENCASEMENT FOR PVC TRUSS PIPE
NTS

WHERE PUBLIC OR PRIVATE UTILITY FIXTURES ARE SHOWN AS EXISTING ON THE PLANS, OR ENCOUNTERED WITHIN THE CONSTRUCTION AREA, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE OWNERS OF THOSE UTILITIES PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL AFFORD ACCESS TO THOSE FACILITIES FOR NECESSARY MODIFICATION OF SERVICES. UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS, AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS POSSIBLE THAT THERE MAY BE OTHER FACILITIES IN THE CONSTRUCTION AREA, THE EXISTENCE OF WHICH IS NOT PRESENTLY KNOWN OR SHOWN HEREON. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THEIR EXISTENCE AND EXACT LOCATION, AND TO AVOID DAMAGE THERETO. NO CLAIMS FOR ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR ANY INTERFERENCE OR DELAY CAUSED BY SUCH WORK.



① Parallel Curb Ramp: If normal sidewalk elevation cannot be achieved with the perpendicular ramp between the street and landing due to limited ramp length, provide a parallel ramp to make up the elevation difference between the landing and the standard sidewalk.

The length of the parallel ramp is not required to exceed 15 feet, regardless of the resulting slope. Do not exceed 8.3% slope for parallel ramps shorter than 15 feet.

② Turning Space: Target slope of 1.5% with maximum slope perpendicular to the travel directions of 2.0%. Minimum 4 feet by 4 feet.

③ Perpendicular Curb Ramp: Target running slope of 6.25% with maximum running slope of 8.3%.

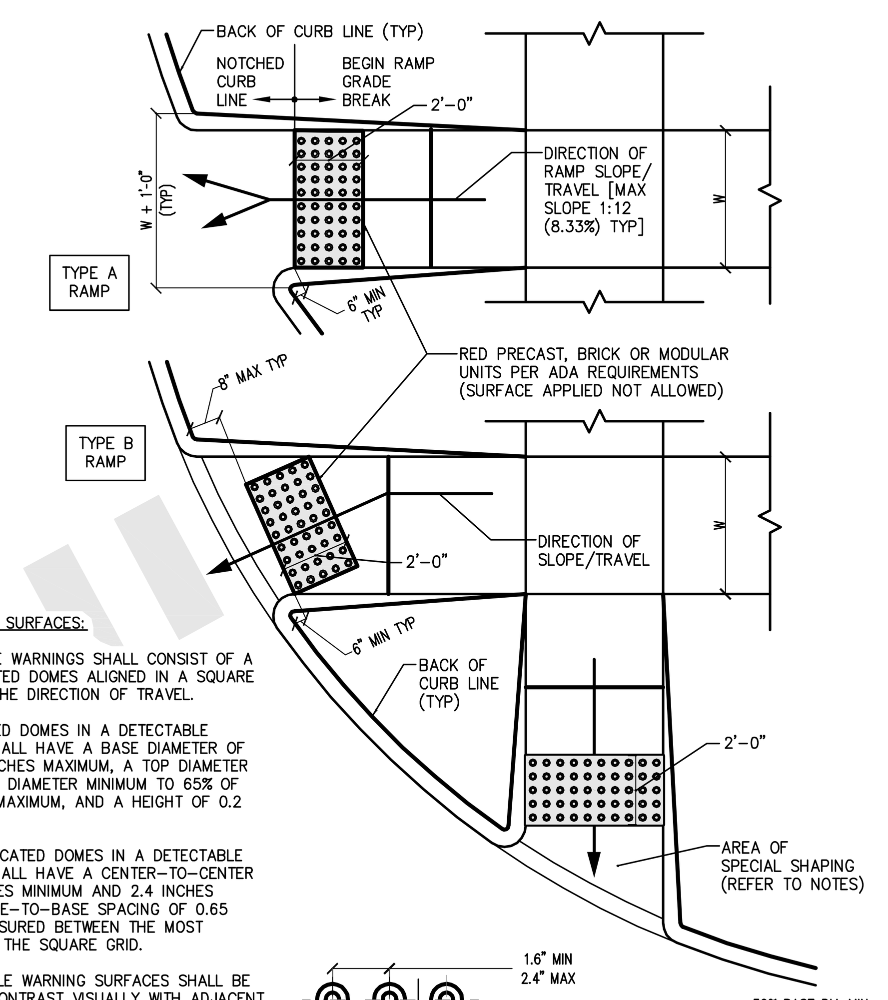
④ Target cross slope of 1.5% with a maximum cross slope of 2.0%.

⑤ Match pedestrian street crossing cross slope or flatter.

Key
- Curb Ramp
- Turning Space
- Detectable warning
- Grass

SUDAS | REVISION New 10-16-12 | 7030.207 | SHEET 1 of 1
SUDAS Standard Specifications
CURB RAMP FOR CLASS B OR C SIDEWALK
FIGURE 7030.207 | SHEET 1 OF 1

DETECTABLE WARNING DETAIL
N.T.S.



DETECTABLE WARNING SURFACES:

GENERAL. DETECTABLE WARNINGS SHALL CONSIST OF A SURFACE OF TRUNCATED DOMES ALIGNED IN A SQUARE GRID PATTERN WITH THE DIRECTION OF TRAVEL.

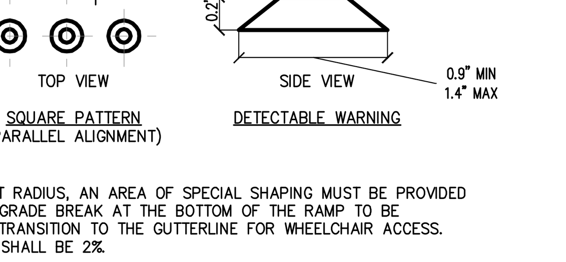
DOME SIZE. TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL HAVE A BASE DIAMETER OF 0.9 INCHES TO 1.4 INCHES MAXIMUM, A TOP DIAMETER OF 50% OF THE BASE DIAMETER MINIMUM TO 65% OF THE BASE DIAMETER MAXIMUM, AND A HEIGHT OF 0.2 INCHES.

DOME–SPACING. TRUNCATED DOMES IN A DETECTABLE WARNING SURFACE SHALL HAVE A CENTER–TO–CENTER SPACING OF 1.6 INCHES MINIMUM AND 2.4 INCHES MAXIMUM, AND A BASE–TO–BASE SPACING OF 0.65 INCHES MINIMUM, MEASURED BETWEEN THE MOST ADJACENT DOMES ON THE SQUARE GRID.

CONTRAST. DETECTABLE WARNING SURFACES SHALL BE RED IN COLOR AND CONTRAST VISUALLY WITH ADJACENT WALKING SURFACES.

SIZE. DETECTABLE WARNING SURFACES SHALL EXTEND 24 INCHES MINIMUM IN THE DIRECTION OF TRAVEL AND THE FULL WIDTH OF THE CURB RAMP, LANDING, OR BLENDED TRANSITION.

CURB RAMPS AND BLENDED TRANSITIONS.
THE DETECTABLE WARNING SURFACE SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 INCHES MINIMUM AND 8 INCHES MAXIMUM FROM THE BACK OF CURB LINE.



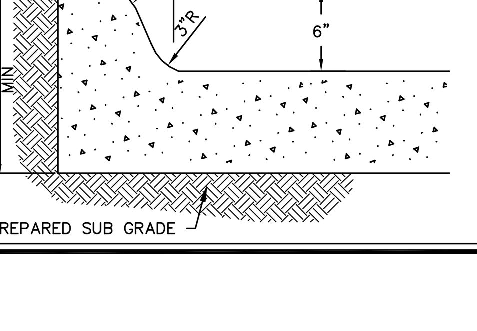
SQUARE PATTERN (PARALLEL ALIGNMENT) — DETECTABLE WARNING

SPECIAL SHAPING
UNLESS CURB RAMP IS ALIGNED PERPENDICULAR TO THE STREET RADIUS, AN AREA OF SPECIAL SHAPING MUST BE PROVIDED AT THE BOTTOM OF THE RAMP. THIS AREA SHALL ALLOW THE GRADE BREAK AT THE BOTTOM OF THE RAMP TO BE PERPENDICULAR TO THE RAMP AND SHALL PROVIDE A SMOOTH TRANSITION TO THE GUTTERLINE FOR WHEELCHAIR ACCESS. NO CURB LIP ALLOWED IN THIS AREA. MAXIMUM CROSS SLOPE SHALL BE 2%.

PAVING CONSTRUCTION NOTES

1) I.D.O.T. CLASS C–3 CONCRETE SHALL BE USED, UNLESS NOTED OTHERWISE.
2) CITY OF IOWA CITY DESIGN AND CONSTRUCTION STANDARDS AND PROCEDURES SHALL PREVAIL.
3) PAVEMENT JOINTS SHALL CONFORM TO I.D.O.T. STANDARD ROAD PLANS PV–101 CURRENT REVISION.
4) THE CONCRETE AGGREGATE SHALL BE CLASS 3i DURABILITY AS SPECIFIED IN SECTION 4115.01.C OF THE I.D.O.T. STANDARD SPECIFICATIONS.
5) ALL SAWED PAVEMENT JOINTS SHALL BE SEALED.

STANDARD CURB DETAIL
N.T.S.



NOTE: SAWCUT CONTROL JOINT 10' O.C.

CIVIL ENGINEERS
LAND PLANNERS
LAND SURVEYORS
LANDSCAPE ARCHITECTS
ENVIRONMENTAL SPECIALISTS
1917 S. GILBERT ST.
IOWA CITY, IOWA 52240
(319) 351-8282
www.mmsconsultants.net

Date	Revision
08/07/15	90% CONSTRUCTION SET
10/27/15	PER CITY COMMENTS -JJR
11/04/15	PER CITY COMMENTS -JJR/MAK
01/08/15	PER CITY COMMENTS -PVA/MAK

DETAILS

ONE UNIVERSITY PLACE
PUBLIC IMPROVEMENTS

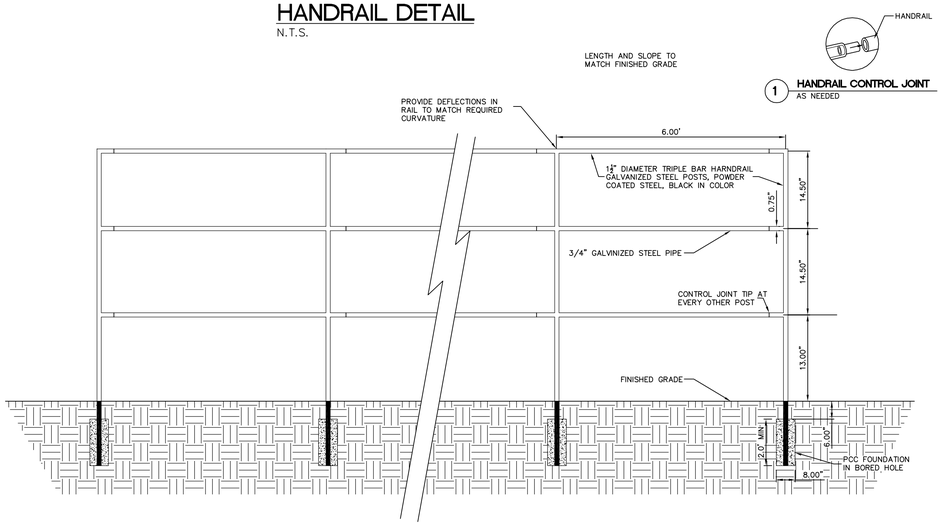
UNIVERSITY HEIGHTS
JOHNSON COUNTY
STATE OF IOWA

MMS CONSULTANTS, INC.

Date: 7-27-2015	
Designed by: RLA	Field Book No:
Drawn by: MAK	Scale: N/A
Checked by: RLA	Sheet No: 2
Project No: IOWA CITY 5136012	of: 15

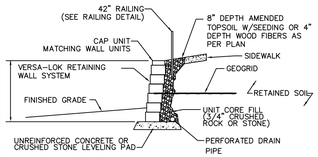
HANDRAIL DETAIL

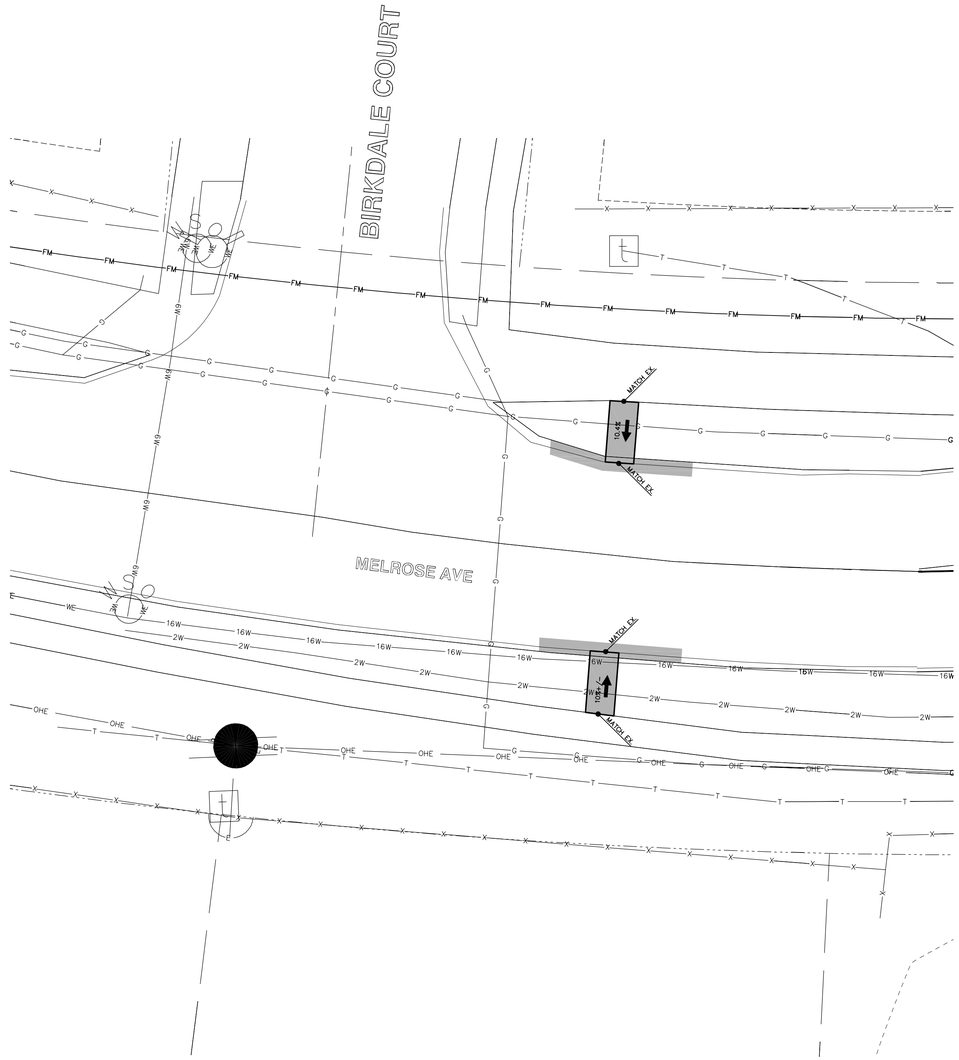
N.T.S.



TYPICAL WALL SECTION

N.T.S.





OFFSITE TEMPORARY SIDEWALK GRADING

SCALE: 1"=10'

MMS

CIVIL ENGINEERS
LAND PLANNERS
LAND SURVEYORS
LANDSCAPE ARCHITECTS
ENVIRONMENTAL SPECIALISTS

1917 S. GILBERT ST.
IOWA CITY, IOWA 52240
(319) 351-8282
www.mmsconsultants.net

Date	Revision
08/07/15	90% CONSTRUCTION SET
10/27/15	PER CITY COMMENTS -JJR
11/04/15	PER CITY COMMENTS -JJR/MAK
01/08/15	PER CITY COMMENTS -PVA/MAK

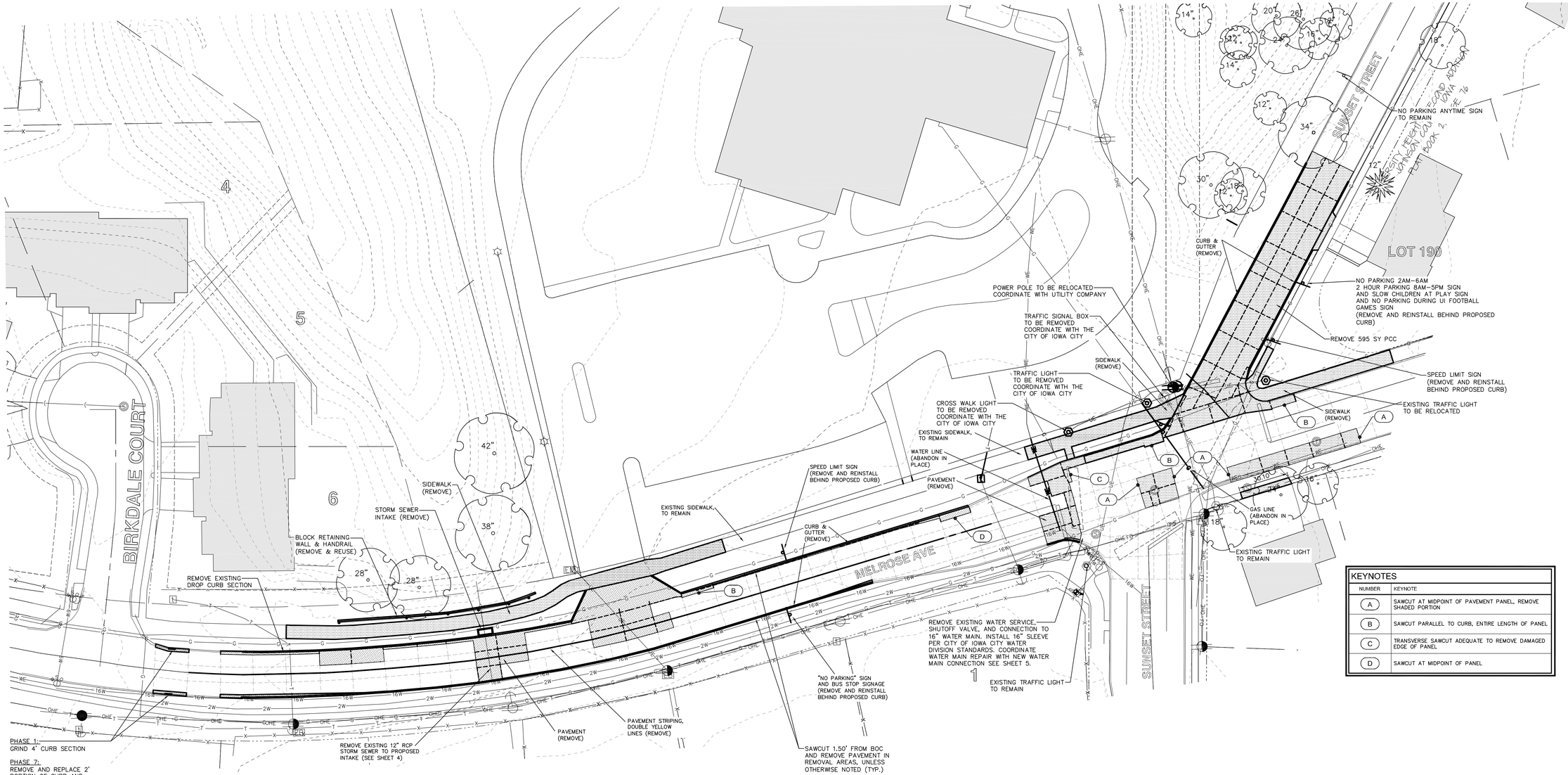
DETAILS AND OFFSITE TEMPORARY SIDEWALK GRADING

ONE UNIVERSITY PLACE PUBLIC IMPROVEMENTS

UNIVERSITY HEIGHTS
JOHNSON COUNTY
STATE OF IOWA

MMS CONSULTANTS, INC.

Date: 7-27-2015	
Designed by: RLA	Field Book No:
Drawn by: MAK	Scale: AS SHOWN
Checked by: RLA	Sheet No: 3
Project No: IOWA CITY 5136012	of: 15



N

0 3 15 30
GRAPHIC SCALE IN FEET
1"=30'

KEYNOTES	
NUMBER	KEYNOTE
A	SAWCUT AT MIDPOINT OF PAVEMENT PANEL, REMOVE SHADED PORTION
B	SAWCUT PARALLEL TO CURB, ENTIRE LENGTH OF PANEL
C	TRANSVERSE SAWCUT ADEQUATE TO REMOVE DAMAGED EDGE OF PANEL
D	SAWCUT AT MIDPOINT OF PANEL

CIVIL ENGINEERS
LAND PLANNERS
LAND SURVEYORS
LANDSCAPE ARCHITECTS
ENVIRONMENTAL SPECIALISTS

1917 S. GILBERT ST.
IOWA CITY, IOWA 52240
(319) 351-8282
www.mmsconsultants.net

Date	Revision
08/07/15	90% CONSTRUCTION SET
10/27/15	PER CITY COMMENTS -JJR
11/04/15	PER CITY COMMENTS -JJR/MAK
01/08/15	PER CITY COMMENTS -PVA/MAK

DEMOLITION PLAN

ONE UNIVERSITY PLACE PUBLIC IMPROVEMENTS

UNIVERSITY HEIGHTS
JOHNSON COUNTY
STATE OF IOWA

MMS CONSULTANTS, INC.

Date:	7-27-2015
Designed by: RLA	Field Book No:
Drawn by: MAK	Scale: 1"=30'
Checked by: RLA	Sheet No: 4
Project No: IOWA CITY 5136012	of: 15

CONSTRUCT TOP, CASTING AND THROAT TO EXISTING SW-507 INTAKE (SEE SHEET C-109 "ONE UNIVERSITY PLACE – SITE")
TC=780.18
GU=779.68
IE IN=776.28 (EXISTING)
IE OUT=776.18 (EXISTING)

WATERMAIN BY OTHERS

(SEE CONTINUATION BELOW)

INSTALL 50 LF 8"ø DIP WATERMAIN, TO BE BORED AND JACKED WITHOUT CASING PIPE

PLUG END OF PIPE WITH WATERTIGHT PLUG

8" TEE WITH THREE 8" GATE VALVES

INSTALL 136 LF 8"ø DIP WATERMAIN

INSTALL 16"x8" TEE AND 16" CUT IN SLEEVE AND 2–8" 90° BENDS PER DETAIL (THIS SHEET)

INSTALL 79 LF 8"ø PVC DR-18 WATERMAIN

INSTALL 31 LF 8"ø PVC DR-18 WATERMAIN

PROP FIRE HYDRANT WITH AUXILIARY GATE VALVE

REMOVE AND REPLACE PAVING (SEE DEMOLITION PLAN)
ONE LANE ON MELROSE SHALL REMAIN OPEN AT ALL TIMES
TRAFFIC CONTROL SHALL CONFORM TO IDOT STANDARD ROAD PLAN TC-212

TWO LANES OF TRAFFIC SHALL REMAIN OPEN BETWEEN THE HOURS OF 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM.

SUNSET STREET

LIMITS OF GRADING

INSTALL 122 LF 8"ø PVC DR-18 WATERMAIN

INSTALL 40 LF 8"ø PVC DR-18 WATERMAIN WITH CERTA-LOC RESTRAINED JOINTS TO BE DIRECTIONALLY DRILLED UNDER EXISTING TREE

INSTALL 50 LF 8"ø PVC DR-18 WATERMAIN WITH CERTA-LOC RESTRAINED JOINTS TO BE DIRECTIONALLY DRILLED UNDER EXISTING TREE

INSTALL 2–8" GATE VALVES

INSTALL 20 LF 8"ø PVC DR-18 WATERMAIN

INSTALL DEAD END FIRE HYDRANT WITH AUXILIARY GATE VALVE

UNIVERSITY HEIGHTS SECOND ADDITION
JOHNSON COUNTY, IOWA
PLAT BOOK 2, PAGE 76

LOT 190

#5 EPOXY COATED BARS x 24" LONG 30" ON CENTER DRILLED AND EPOXY GROUTED 9" INTO EXISTING SLAB CENTERED IN SLAB

MATCH EXISTING PAVEMENT THICKNESS OR A MINIMUM OF 10" P.C.C.

2' MIN (TYP)

EXISTING P.C. CONCRETE

CLASS A ROADSTONE FULL DEPTH IN UTILITY TRENCHES. 6" MINIMUM AT PAVEMENT REPLACEMENT PANELS

CONCRETE SHALL BE SAWN TO INSURE A CLEAN BREAK AT THE JOINTS.

I.D.O.T. TYPE BT-3 JOINT SHALL BE USED TO FORM LONGITUDINAL JOINT CONNECTION TO EXISTING CONCRETE.

I.D.O.T. TYPE RT JOINT SHALL BE USED TO FORM TRANSVERSE JOINT CONNECTION TO EXISTING CONCRETE.

USE I.D.O.T. CLASS C-3 CONCRETE MIX.

ALL JOINTS SHALL BE SAWN AND SEALED IN ACCORDANCE WITH I.D.O.T. DETAIL PV-101.

CONCRETE SHALL BE REMOVED TO THE NEAREST LONGITUDINAL JOINT AND A MINIMUM OF HALF THE PANEL BETWEEN TRANSVERSE JOINTS.

ONLY FULL OR HALF PANEL MAY BE REMOVED.

FULL PANELS MUST BE REMOVED IF THE PORTION TO REMAIN IS CRACKED OR SETTLED.

MELROSE P.C.C. REMOVAL AND REPLACEMENT
NOT TO SCALE

GRAPHIC SCALE IN FEET
1"=20'

6" PCC (SIDEWALK)

7" PCC

10" PCC

SANITARY FORCEMAIN, BY OTHERS (SEE SHEET C-109 "ONE UNIVERSITY PLACE – SITE")

PLUG END OF PIPE WITH WATERTIGHT PLUG

PROPOSED COMMERCIAL BUILDING

PROP INTK #2
(SW-509)
TC=779.48
GU=778.98
IE IN=775.40
IE OUT=774.12 (EXISTING)(VERIFY)

EXISTING FES
IE=768.79

EXISTING 12"ø RCP

FOR OFFSITE TEMPORARY SIDEWALK GRADING LOCATED NEAR INTERSECTION OF MELROSE AVENUE AND BIRKDALE COURT SEE SHEET 3.

LIMITS OF GRADING

38'-12"ø RCP @ 1.68%

INSTALL 62 LF 8" DIP TO BE BORED AND JACKED WITHOUT CASING PIPE

CONNECT PROPOSED 8"ø TO EXISTING 16"ø WATERMAIN
INSTALL DUCTILE IRON TAPPING SLEEVE AND VALVE PER DETAIL, THIS SHEET

REMOVE AND REPLACE PAVING
ONE LANE ON MELROSE SHALL REMAIN OPEN AT ALL TIMES
TRAFFIC CONTROL SHALL CONFORM TO IDOT STANDARD ROAD PLAN TC-212

TWO LANES OF TRAFFIC SHALL REMAIN OPEN BETWEEN THE HOURS OF 7:00 AM TO 9:00 AM AND 4:00 PM TO 6:00 PM.

INSTALL 16"x8" TEE AND 16" CUT IN SLEEVE AND 2–8" 90° BENDS PER DETAIL (THIS SHEET)

PROP INTK #1
(SW-509)
TC=779.60
GU=779.10
IE OUT=776.04

MELROSE AVE

SUNSET STREET

(SEE CONTINUATION ABOVE)

DUCTILE IRON TAPPING SLEEVE OR 16"x8" TEE

EXISTING 16" WATER MAIN

PROVIDE THRUST RESTRAINT PER THRUST BLOCK DETAIL, SHEET 2 OR RESTRAINED JOINT TIE RODS

8" DI 90° BEND

WATER MAIN CONNECTION DETAIL
N.T.S.

GRAPHIC SCALE IN FEET
1"=20'

MMS
CIVIL ENGINEERS
LAND PLANNERS
LAND SURVEYORS
LANDSCAPE ARCHITECTS
ENVIRONMENTAL SPECIALISTS
1917 S. GILBERT ST.
IOWA CITY, IOWA 52240
(319) 351-8282
www.mmsconsultants.net

Date	Revision
08/07/15	90% CONSTRUCTION SET
10/2/15	PER CITY COMMENTS -JJR
11/04/15	PER CITY COMMENTS -JJR/MAK
01/08/15	PER CITY COMMENTS -PVA/MAK

GRADING AND UTILITY PLAN

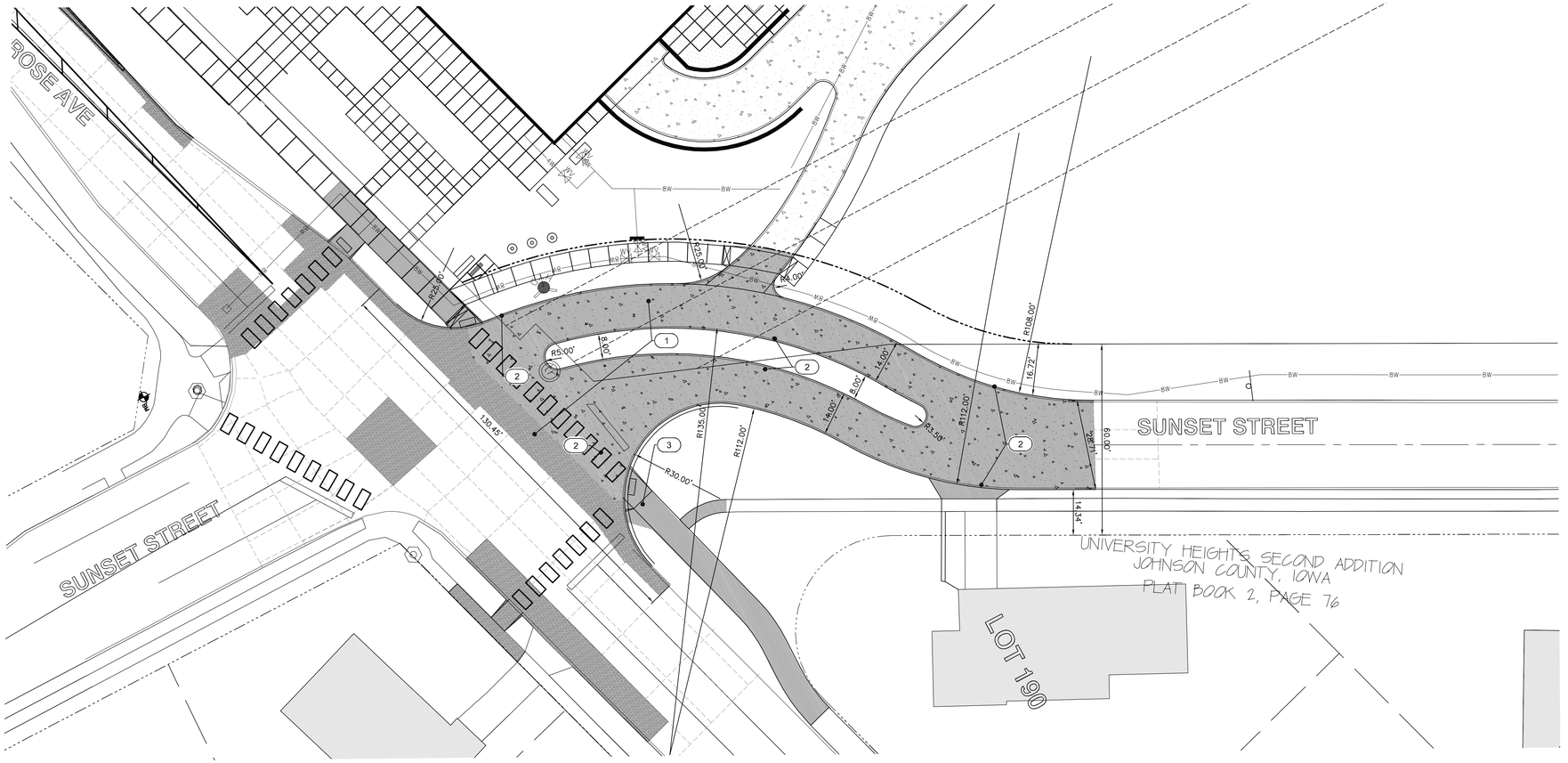
ONE UNIVERSITY PLACE
PUBLIC IMPROVEMENTS

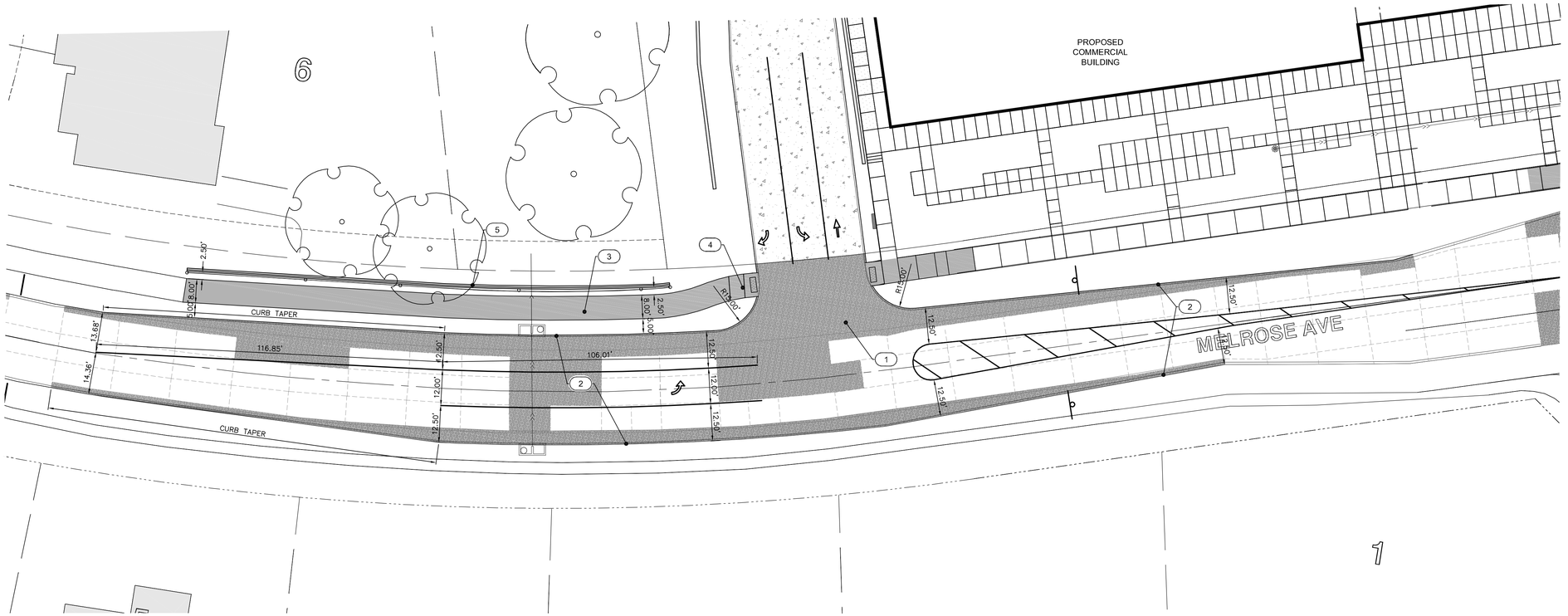
UNIVERSITY HEIGHTS
JOHNSON COUNTY
STATE OF IOWA

MMS CONSULTANTS, INC.

Date:	7-27-2015
Designed by: RLA	Field Book No:
Drawn by: MAK	Scale: 1"=20'
Checked by: RLA	Sheet No: 5
Project No: IOWA CITY 5136012	of: 15

C:\PROJECTS\IOWA CITY\5136012\CAD\C Sheets\C5136012 GRADING.dwg, 1/8/2016 4:08:27 PM, mak





0 2 5 10 15 20
GRAPHIC SCALE IN FEET
1"=20'

KEYNOTES

NUMBER	KEYNOTE	DETAIL
1	INSTALL DRIVE PER DETAIL (THICKNESS AND MATERIAL AS NOTED)	
2	INSTALL 6" STANDARD CURB	
3	INSTALL 6"" P.C.C. SIDEWALK PER MUNICIPAL DESIGN STANDARDS	
4	INSTALL CURB RAMP PER ADA REQUIRMENTS	
5	PROPOSED MODULAR BLOCK RETAINING WALL WITH HANDRAIL. (GEOTECHNICAL ENGINEER SHALL CERTIFY WALL PLANS PRIOR TO CONSTRUCTION)	

6" PCC (SIDEWALK)

7" PCC

10" PCC

MMS
CIVIL ENGINEERS
LAND PLANNERS
LAND SURVEYORS
LANDSCAPE ARCHITECTS
ENVIRONMENTAL SPECIALISTS
1917 S. GILBERT ST.
IOWA CITY, IOWA 52240
(319) 351-8282
www.mmsconsultants.net

Date	Revision
08/07/15	90% CONSTRUCTION SET
10/27/15	PER CITY COMMENTS -JJR
11/04/15	PER CITY COMMENTS -JJR/MAK
01/08/15	PER CITY COMMENTS -PVA/MAK

DIMENSION PLAN

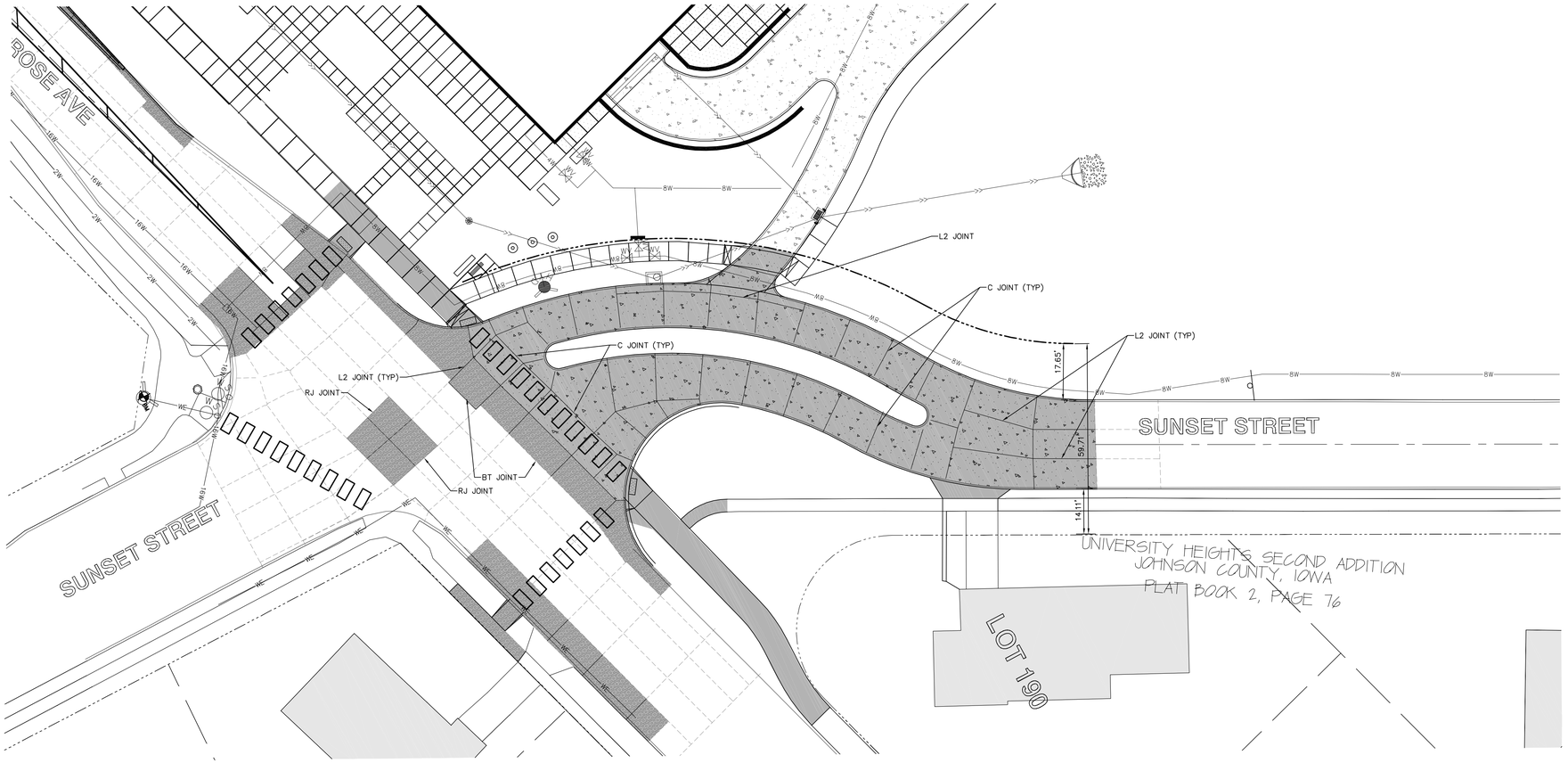
ONE UNIVERSITY PLACE
PUBLIC IMPROVEMENTS

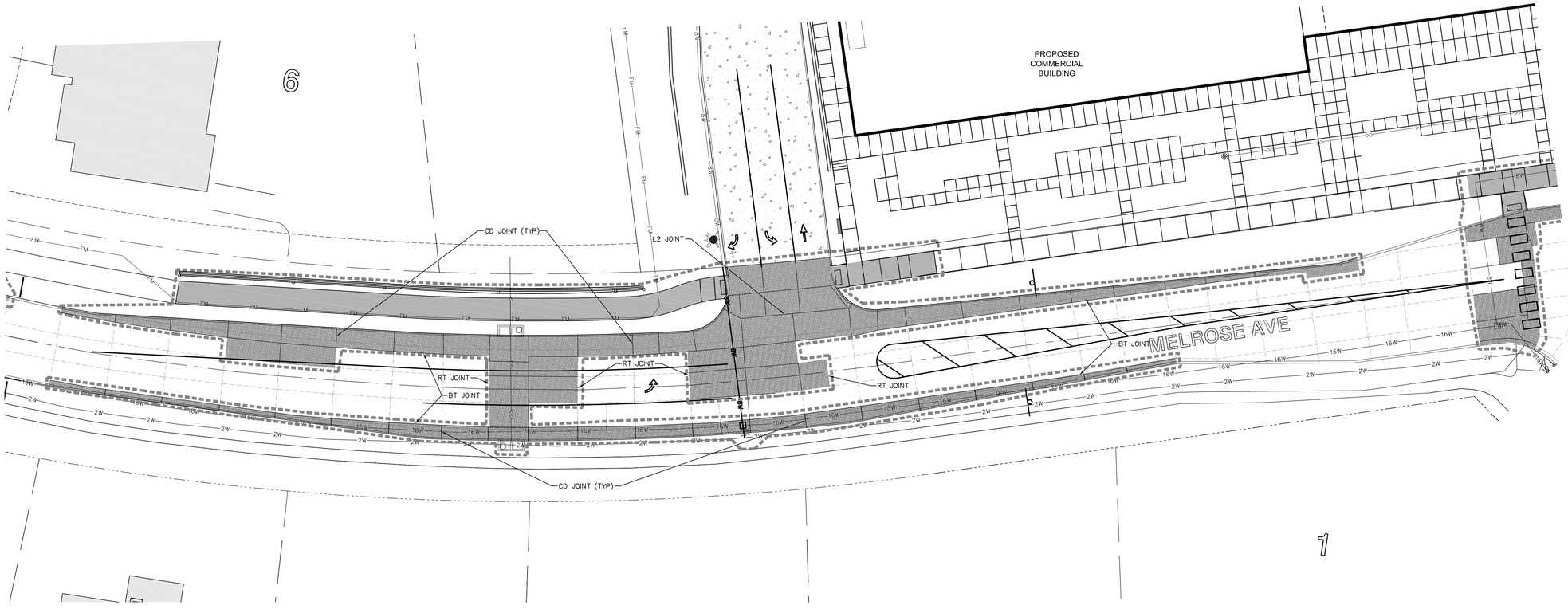
UNIVERSITY HEIGHTS
JOHNSON COUNTY
STATE OF IOWA

MMS CONSULTANTS, INC.

Date:	7-27-2015
Designed by: RLA	Field Book No.:
Drawn by: MAK	Scale: 1"=20'
Checked by: RLA	Sheet No.: 6
Project No.: IOWA CITY 5136012	of: 15

C:\13\5136012\Civil\5136012-COVER.dwg, 1/8/2016 4:36:47 PM, mak





0 2.5 10 15 20
GRAPHIC SCALE IN FEET
1"=20'

CIVIL ENGINEERS
LAND PLANNERS
LAND SURVEYORS
LANDSCAPE ARCHITECTS
ENVIRONMENTAL SPECIALISTS

1917 S. GILBERT ST.
IOWA CITY, IOWA 52240
(319) 351-8282
www.mmsconsultants.net

Date	Revision
08/07/15	90% CONSTRUCTION SET
10/27/15	PER CITY COMMENTS -JJR
11/04/15	PER CITY COMMENTS -JJR/MAK
01/08/15	PER CITY COMMENTS -PVA/MAK

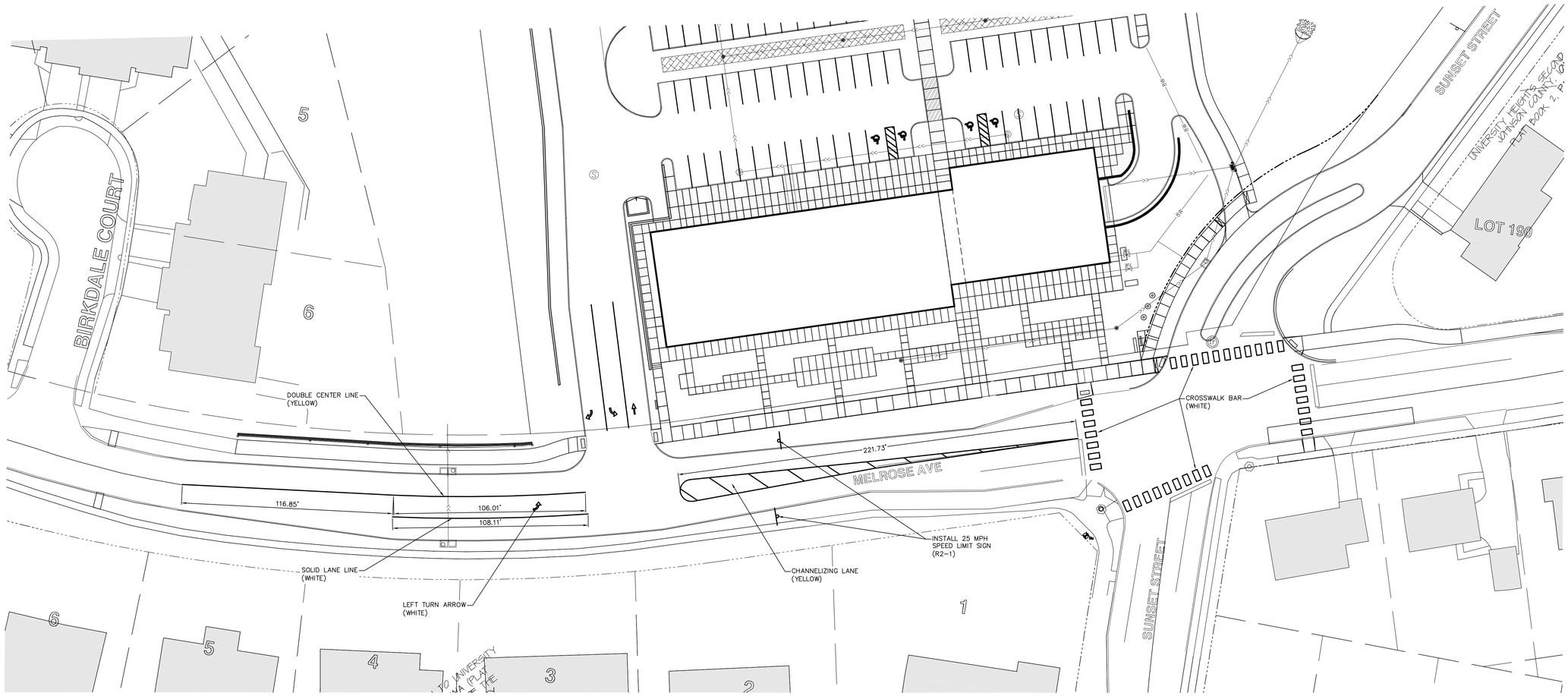
PAVEMENT JOINTING PLAN

ONE UNIVERSITY PLACE
PUBLIC IMPROVEMENTS

UNIVERSITY HEIGHTS
JOHNSON COUNTY
STATE OF IOWA

MMS CONSULTANTS, INC.

Date:	7-27-2015
Designed by: RLA	Field Book No:
Drawn by: MAK	Scale: 1"=20'
Checked by: RLA	Sheet No: 7
Project No: IOWA CITY 5136012	of: 15



NOTE: ALL PAVEMENT MARKINGS SHALL BE EXOPY MARKINGS

CIVIL ENGINEERS
LAND PLANNERS
LAND SURVEYORS
LANDSCAPE ARCHITECTS
ENVIRONMENTAL SPECIALISTS

1917 S. GILBERT ST.
IOWA CITY, IOWA 52240
(319) 351-8282
www.mmsconsultants.net

Date	Revision
08/07/15	90% CONSTRUCTION SET
10/27/15	PER CITY COMMENTS -JJR
11/04/15	PER CITY COMMENTS -JJR/MAK
01/08/15	PER CITY COMMENTS -PVA/MAK

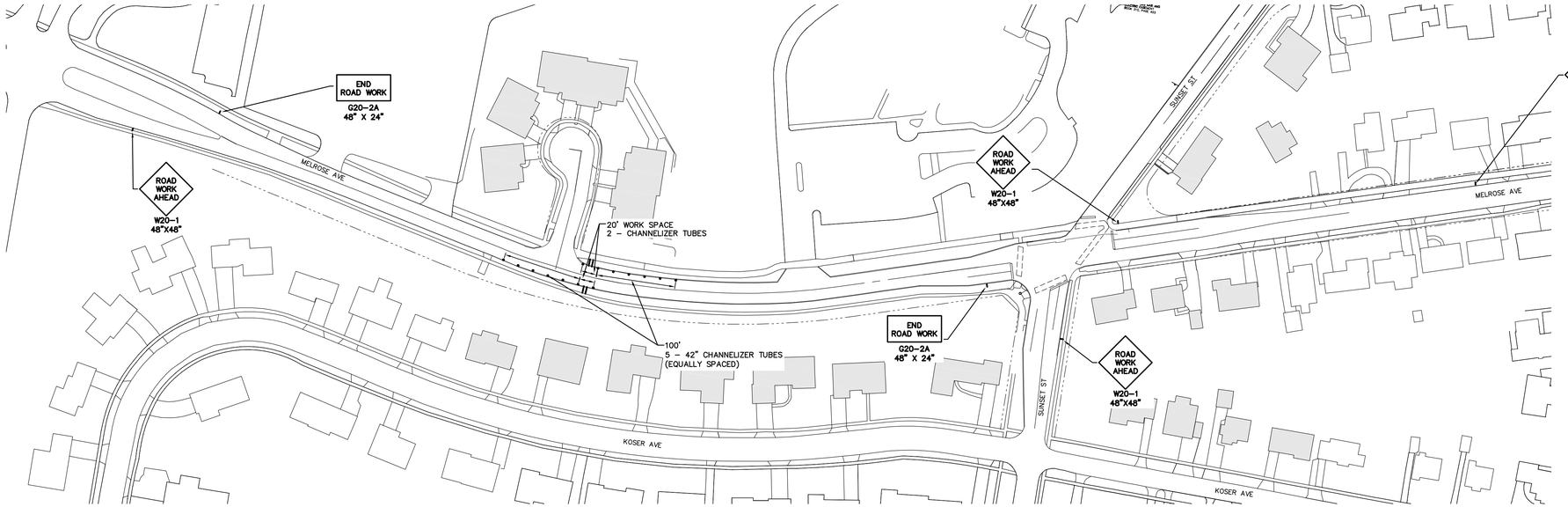
STRIPING AND SIGNAGE PLAN

ONE UNIVERSITY PLACE
PUBLIC IMPROVEMENTS

UNIVERSITY HEIGHTS
JOHNSON COUNTY
STATE OF IOWA

MMS CONSULTANTS, INC.

Date:	7-27-2015
Designed by: RLA	Field Book No.:
Drawn by: MAK	Scale: 1"=30'
Checked by: RLA	Sheet No.: 8
Project No.: IOWA CITY 5136012	of: 15



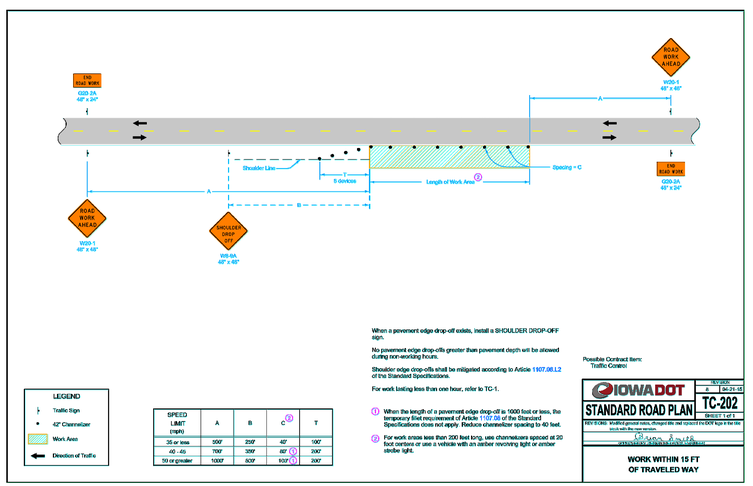
PHASE 1 NOTES:
1. PHASE 1 SHALL BE COMPLETED PRIOR TO STARTING PHASE 2.
2. PHASE 7 MAY COMMENCE FOLLOWING COMPLETION OF PHASE 4.
3. TWO-WAY TRAFFIC ON MELROSE SHALL BE MAINTAINED AT ALL TIMES
4. WORK MAY NOT OCCUR SIMULTANEOUSLY AT NORTH SIDE OF MELROSE AVENUE AND SOUTH SIDE OF MELROSE AVENUE.
5. TRAFFIC CONTROL FOR THIS STAGE SHALL CONFORM TO IDOT STANDARD ROAD PLAN TC-202.
6. TRAFFIC CONTROL MEASURES SHALL BE IN PLACE AT ALL TIMES.

PHASE 1

TEMPORARY SIDEWALK CROSSING CONSTRUCTION.
2 WAY TRAFFIC ON MELROSE AVENUE MAINTAINED.

PHASE 7

REMOVAL OF TEMPORARY SIDEWALK CROSSING.



LEGEND
- Traffic Sign
- 42" Channelizer
- Work Area
- Direction of Traffic

SPEED LIMIT (mph)	A	B	C (1)	T
35 or less	550'	220'	40'	100'
40 - 45	700'	305'	80' (1)	300'
50 or greater	1000'	820'	160' (1)	300'

GENERAL TRAFFIC CONTROL NOTES:

1. TRAFFIC CONTROL FOR THIS PROJECT SHALL CONFORM TO THE MANUAL ON UNIFORM CONTROL DEVICES (MUTCD), LATEST VERSION.
2. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR.
3. TRAFFIC CONTROL MEASURES SHALL BE IN PLACE AT ALL TIMES THAT THE CONTRACTOR IS PERFORMING WORK.
4. A 'SIDEWALK CLOSED' SIGN ON A TYPE II BARRICADE SHALL BE POSTED ON SIDEWALKS PRIOR TO ANY PORTION OF REMOVED OR UNSUITABLE SIDEWALK.
5. TEMPORARY PORTABLE SAFETY FENCE AS SPECIFIED IN SECTION 00 74 13 ITEM 10.E SHALL BE PLACED AROUND ANY OPEN TRENCH DURING NON WORKING HOURS. TEMPORARY PORTABLE SAFETY FENCE SHALL BE PLACED BETWEEN ANY PEDESTRIAN ROUTE AND THE CONSTRUCTION LIMITS DURING PERIODS OF CONSTRUCTION ACTIVITY. IT IS NOT REQUIRED THAT THE SAFETY FENCE BE INSTALLED AND MAINTAINED ALONG THE ENTIRE LENGTH OF THE PROJECT THROUGHOUT THE DURATION OF CONSTRUCTION.

MMS
CIVIL ENGINEERS
LAND PLANNERS
LAND SURVEYORS
LANDSCAPE ARCHITECTS
ENVIRONMENTAL SPECIALISTS
1917 S. GILBERT ST.
IOWA CITY, IOWA 52240
(319) 351-8282
www.mmsconsultants.net

Date	Revision
08/07/15	90% CONSTRUCTION SET
10/27/15	PER CITY COMMENTS -JJR
11/04/15	PER CITY COMMENTS -JJR/MAK
01/08/15	PER CITY COMMENTS -PVA/MAK

TRAFFIC CONTROL PLAN: PHASE 1 & 7

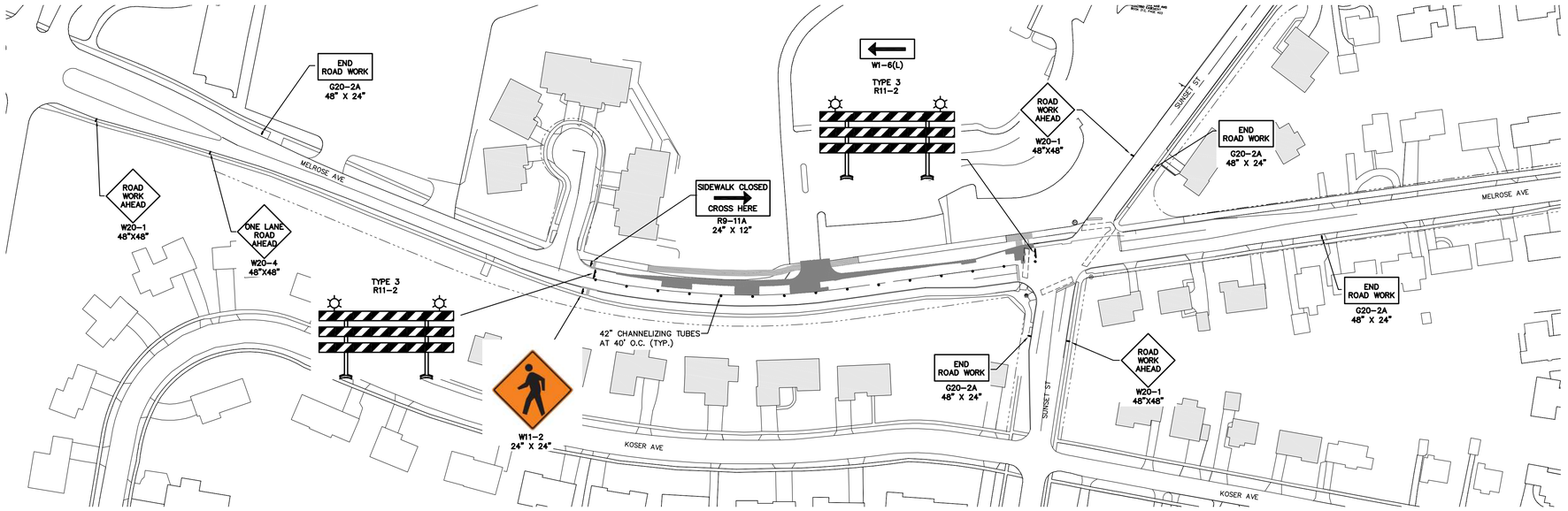
ONE UNIVERSITY PLACE
PUBLIC IMPROVEMENTS

UNIVERSITY HEIGHTS
JOHNSON COUNTY
STATE OF IOWA

MMS CONSULTANTS, INC.

Date:	7-27-2015
Designed by: RLA	Field Book No:
Drawn by: MAK	Scale: 1"=80'
Checked by: RLA	Sheet No: 9
Project No: IOWA CITY 5136012	of: 15

C:\MMS\Projects\5136012\Civil\Sheets\TC-202 Phase 1 & 7.dwg, 1/11/2016 2:20:21 PM, mak



PHASE 2

WESTBOUND MELROSE AVENUE IMPROVEMENTS:
EASTBOUND MELROSE AVENUE TRAFFIC MAINTAINED.
WESTBOUND MELROSE AVENUE TRAFFIC FOLLOWS DETOUR ROUTE (SEE SHEET 15).

PHASE 2 NOTES:
1. PHASE 1 SHALL BE COMPLETED PRIOR TO STARTING PHASE 2.
2. PLACE TRAFFIC CONTROL DEVICES AS REQUIRED FOR PAVEMENT REMOVAL, UTILITY CONSTRUCTION, RETAINING WALL, SIDEWALK CONSTRUCTION AND REPLACEMENT OF NORTH PORTION OF MELROSE AVENUE.
3. TRAFFIC CONTROL MEASURES SHALL BE IN PLACE AT ALL TIMES UNTIL WESTBOUND LANE IS ACCEPTED FOR TRAFFIC.

GENERAL TRAFFIC CONTROL NOTES:

1. TRAFFIC CONTROL FOR THIS PROJECT SHALL CONFORM TO THE MANUAL ON UNIFORM CONTROL DEVICES (MUTCD), LATEST VERSION.
2. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR.
3. TRAFFIC CONTROL MEASURES SHALL BE IN PLACE AT ALL TIMES THAT THE CONTRACTOR IS PERFORMING WORK.
4. COORDINATE WITH THE IOWA CITY TRAFFIC ENGINEERING SUPERINTENDENT (PUBLIC WORKS DEPARTMENT) TO MODIFY OPERATION OF THE TRAFFIC SIGNALS AT THE MELROSE AVENUE – SUNSET STREET INTERSECTION TO PROVIDE ALTERNATING TRAFFIC MOVEMENT IN THE EAST – WEST DIRECTIONS DURING THIS PHASE OF TRAFFIC CONTROL.
5. A 'SIDEWALK CLOSED' SIGN ON A TYPE II BARRICADE SHALL BE POSTED ON SIDEWALKS PRIOR TO ANY PORTION OF REMOVED OR UNSUITABLE SIDEWALK.
6. TEMPORARY PORTABLE SAFETY FENCE AS SPECIFIED IN SECTION 00 74 13 ITEM 10.E SHALL BE PLACED AROUND ANY OPEN TRENCH DURING NON WORKING HOURS. TEMPORARY PORTABLE SAFETY FENCE SHALL BE PLACED BETWEEN ANY PEDESTRIAN ROUTE AND THE CONSTRUCTION LIMITS DURING PERIODS OF CONSTRUCTION ACTIVITY. IT IS NOT REQUIRED THAT THE SAFETY FENCE BE INSTALLED AND MAINTAINED ALONG THE ENTIRE LENGTH OF THE PROJECT THROUGHOUT THE DURATION OF CONSTRUCTION.

0 2 5 10 15 20
GRAPHIC SCALE IN FEET
1"=80'

CIVIL ENGINEERS
LAND PLANNERS
LAND SURVEYORS
LANDSCAPE ARCHITECTS
ENVIRONMENTAL SPECIALISTS
1917 S. GILBERT ST.
IOWA CITY, IOWA 52240
(319) 351-8282
www.mmsconsultants.net

Date	Revision
08/07/15	90% CONSTRUCTION SET
10/27/15	PER CITY COMMENTS -JJR
11/04/15	PER CITY COMMENTS -JJR/MAK
01/08/15	PER CITY COMMENTS -PVA/MAK

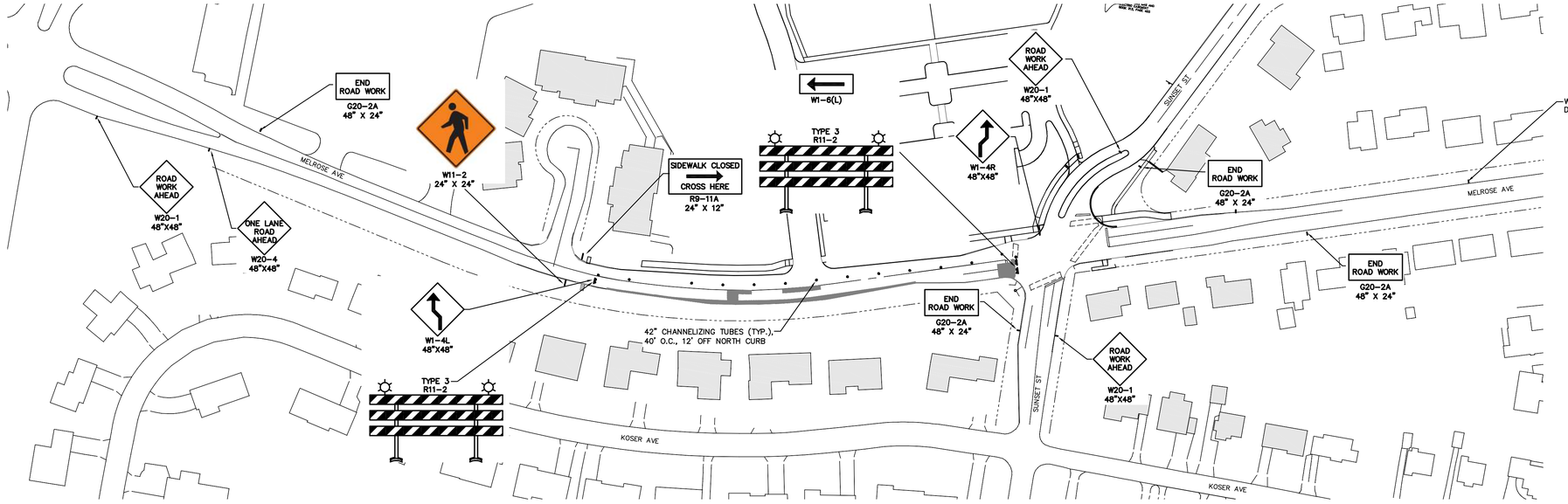
TRAFFIC CONTROL PLAN: PHASE 2

ONE UNIVERSITY PLACE PUBLIC IMPROVEMENTS

UNIVERSITY HEIGHTS
JOHNSON COUNTY
STATE OF IOWA

MMS CONSULTANTS, INC.

Date: 7-27-2015	
Designed by: RLA	Field Book No:
Drawn by: MAK	Scale: 1"=80'
Checked by: RLA	Sheet No: 10
Project No: IOWA CITY 5136012	of: 15



PHASE 3

EASTBOUND MELROSE IMPROVEMENTS:
EASTBOUND MELROSE AVENUE TRAFFIC DETOURED TO NORTH SIDE OF MELROSE AVENUE. WESTBOUND MELROSE AVENUE TRAFFIC FOLLOWS DETOUR ROUTE, SEE SHEET 15.

PHASE 3 NOTES:
1. PHASE 2 SHALL BE COMPLETED PRIOR TO STARTING PHASE 3.
2. PLACE TRAFFIC CONTROL DEVICES AS REQUIRED FOR PAVEMENT REMOVAL, UTILITY CONSTRUCTION AND REPLACEMENT OF SOUTH PORTION OF MELROSE AVENUE.
3. TRAFFIC CONTROL MEASURES SHALL BE IN PLACE AT ALL TIMES UNTIL EASTBOUND LANE IS ACCEPTED FOR TRAFFIC.

GENERAL TRAFFIC CONTROL NOTES:

1. TRAFFIC CONTROL FOR THIS PROJECT SHALL CONFORM TO THE MANUAL ON UNIFORM CONTROL DEVICES (MUTCD), LATEST VERSION.
2. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR.
3. TRAFFIC CONTROL MEASURES SHALL BE IN PLACE AT ALL TIMES THAT THE CONTRACTOR IS PERFORMING WORK.
4. COORDINATE WITH THE IOWA CITY TRAFFIC ENGINEERING SUPERINTENDENT (PUBLIC WORKS DEPARTMENT) TO MODIFY OPERATION OF THE TRAFFIC SIGNALS AT THE MELROSE AVENUE – SUNSET STREET INTERSECTION TO PROVIDE ALTERNATING TRAFFIC MOVEMENT IN THE EAST – WEST DIRECTIONS DURING THIS PHASE OF TRAFFIC CONTROL.
5. A 'SIDEWALK CLOSED' SIGN ON A TYPE II BARRICADE SHALL BE POSTED ON SIDEWALKS PRIOR TO ANY PORTION OF REMOVED OR UNSUITABLE SIDEWALK.
6. TEMPORARY PORTABLE SAFETY FENCE AS SPECIFIED IN SECTION 00 74 13 ITEM 10.E SHALL BE PLACED AROUND ANY OPEN TRENCH DURING NON WORKING HOURS. TEMPORARY PORTABLE SAFETY FENCE SHALL BE PLACED BETWEEN ANY PEDESTRIAN ROUTE AND THE CONSTRUCTION LIMITS DURING PERIODS OF CONSTRUCTION ACTIVITY. IT IS NOT REQUIRED THAT THE SAFETY FENCE BE INSTALLED AND MAINTAINED ALONG THE ENTIRE LENGTH OF THE PROJECT THROUGHOUT THE DURATION OF CONSTRUCTION.

0 2.5 10 15 20
GRAPHIC SCALE IN FEET
1"=80'

MMS
CIVIL ENGINEERS
LAND PLANNERS
LAND SURVEYORS
LANDSCAPE ARCHITECTS
ENVIRONMENTAL SPECIALISTS
1917 S. GILBERT ST.
IOWA CITY, IOWA 52240
(319) 351-8282
www.mmsconsultants.net

Date	Revision
08/07/15	90% CONSTRUCTION SET
10/27/15	PER CITY COMMENTS -JJR
11/04/15	PER CITY COMMENTS -JJR/MAK
01/08/15	PER CITY COMMENTS -PVA/MAK

TRAFFIC CONTROL PLAN: PHASE 3

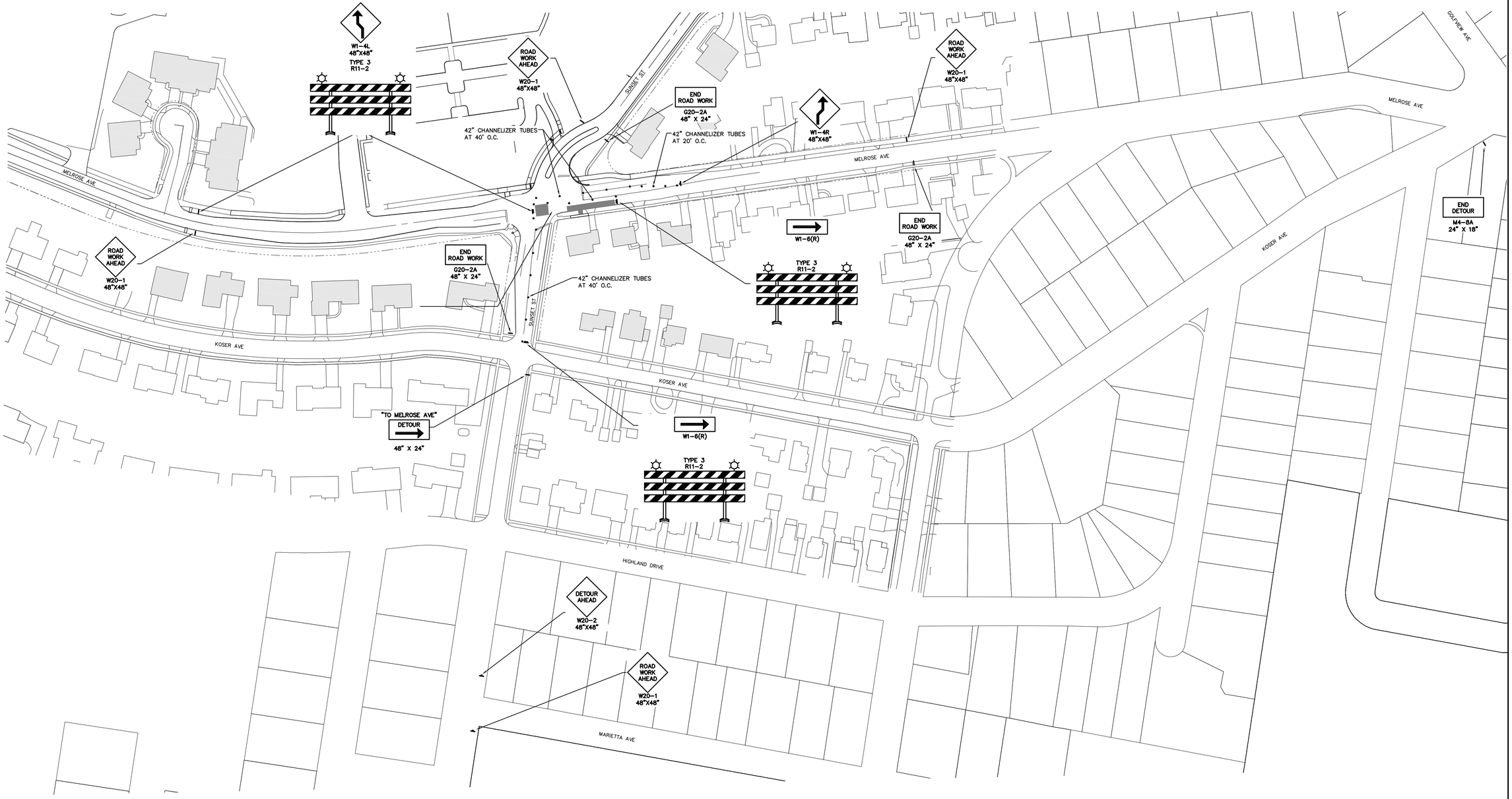
ONE UNIVERSITY PLACE
PUBLIC IMPROVEMENTS

UNIVERSITY HEIGHTS
JOHNSON COUNTY
STATE OF IOWA

MMS CONSULTANTS, INC.

Date:	7-27-2015
Designed by: RLA	Field Book No:
Drawn by: MAK	Scale: 1"=80'
Checked by: RLA	Sheet No: 11
Project No: IOWA CITY 5136012	of: 15

S:\IOWA CITY\5136012\CAD\Sheets\5136012-C07.dwg, 1/5/2016 4:37:07 PM, mak



0 2.5 10 15 20
GRAPHIC SCALE IN FEET
1"=80'

PHASE 4 NOTES:
1. PHASE 3 SHALL BE COMPLETED PRIOR TO STARTING PHASE 4.
2. PLACE TRAFFIC CONTROL DEVICES AS REQUIRED FOR PAVEMENT REMOVAL OF SOUTH PORTION OF MELROSE AVENUE, PAVEMENT REPLACEMENT AND SIDEWALK INSTALLATION.
3. TWO-WAY TRAFFIC ON MELROSE SHALL BE MAINTAINED DURING THIS PHASE OF WORK.
4. TRAFFIC CONTROL MEASURES SHALL BE IN PLACE AT ALL TIMES UNTIL THE EASTBOUND LANE IS ACCEPTED FOR TRAFFIC.

PHASE 4

EASTBOUND MELROSE AVENUE EAST OF SUNSET STREET IMPROVEMENTS:
WESTBOUND MELROSE AVENUE TRAFFIC USE RIGHT TURN LANE.
EASTBOUND MELROSE AVENUE TRAFFIC USE THROUGH LANE.

GENERAL TRAFFIC CONTROL NOTES:

1. TRAFFIC CONTROL FOR THIS PROJECT SHALL CONFORM TO THE MANUAL ON UNIFORM CONTROL DEVICES (MUTCD), LATEST VERSION.
2. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR.
3. TRAFFIC CONTROL MEASURES SHALL BE IN PLACE AT ALL TIMES THAT THE CONTRACTOR IS PERFORMING WORK.
4. COORDINATE WITH THE IOWA CITY TRAFFIC ENGINEERING SUPERINTENDENT (PUBLIC WORKS DEPARTMENT) TO MODIFY OPERATION OF THE TRAFFIC SIGNALS AT THE MELROSE AVENUE – SUNSET STREET INTERSECTION TO PROVIDE ALTERNATING TRAFFIC MOVEMENT IN THE EAST – WEST DIRECTIONS DURING THIS PHASE OF TRAFFIC CONTROL.
5. A 'SIDEWALK CLOSED' SIGN ON A TYPE II BARRICADE SHALL BE POSTED ON SIDEWALKS PRIOR TO ANY PORTION OF REMOVED OR UNSUITABLE SIDEWALK.
6. TEMPORARY PORTABLE SAFETY FENCE AS SPECIFIED IN SECTION 00 74 13 ITEM 10.E SHALL BE PLACED AROUND ANY OPEN TRENCH DURING NON WORKING HOURS. TEMPORARY PORTABLE SAFETY FENCE SHALL BE PLACED BETWEEN ANY PEDESTRIAN ROUTE AND THE CONSTRUCTION LIMITS DURING PERIODS OF CONSTRUCTION ACTIVITY. IT IS NOT REQUIRED THAT THE SAFETY FENCE BE INSTALLED AND MAINTAINED ALONG THE ENTIRE LENGTH OF THE PROJECT THROUGHOUT THE DURATION OF CONSTRUCTION.

MMS
CIVIL ENGINEERS
LAND PLANNERS
LAND SURVEYORS
LANDSCAPE ARCHITECTS
ENVIRONMENTAL SPECIALISTS
1917 S. GILBERT ST.
IOWA CITY, IOWA 52240
(319) 351-8282
www.mmsconsultants.net

Date	Revision
08/07/15	90% CONSTRUCTION SET
10/27/15	PER CITY COMMENTS -JJR
11/04/15	PER CITY COMMENTS -JJR/MAK
01/08/15	PER CITY COMMENTS -PVA/MAK

TRAFFIC CONTROL PLAN: PHASE 4

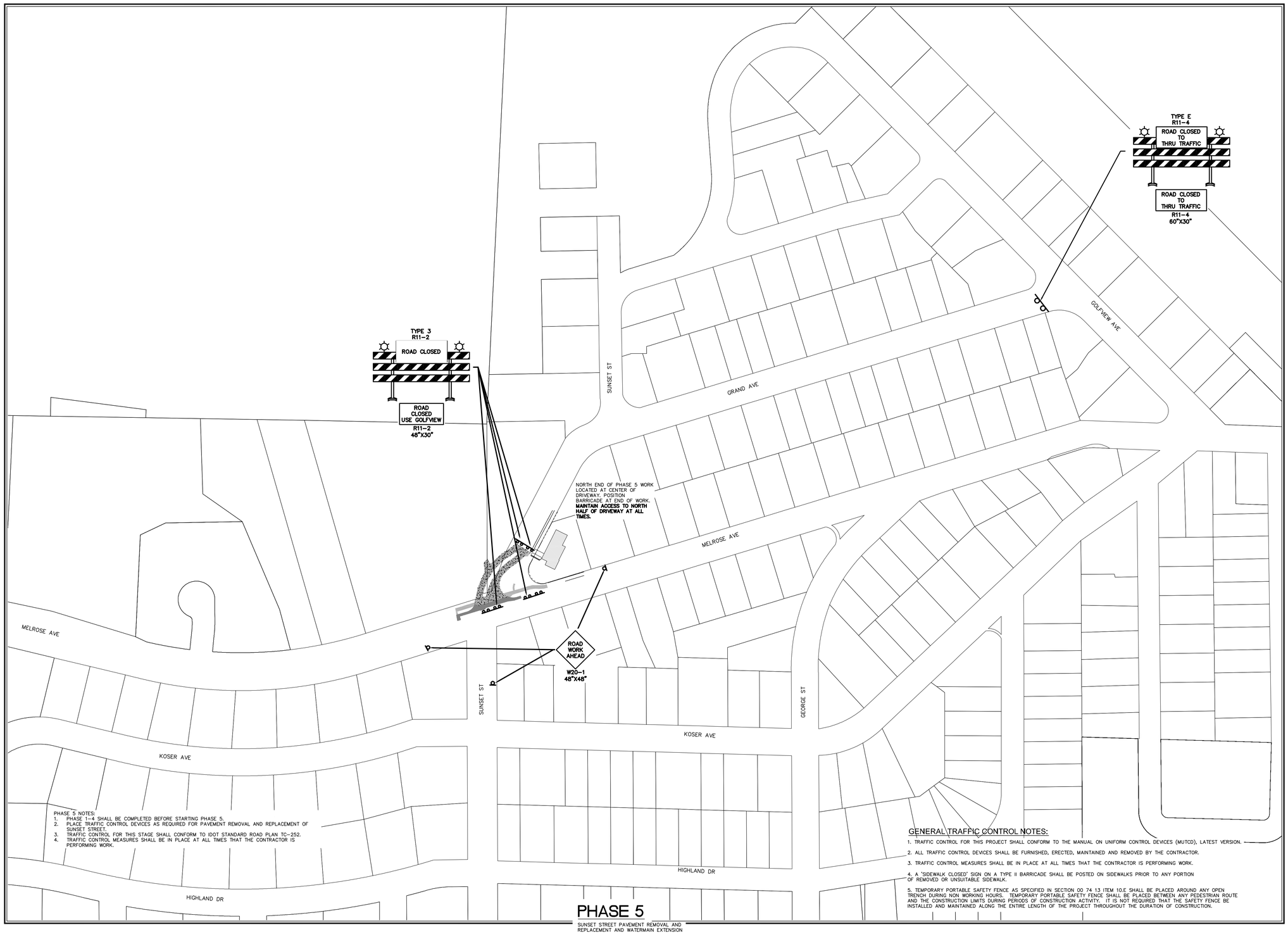
ONE UNIVERSITY PLACE
PUBLIC IMPROVEMENTS

UNIVERSITY HEIGHTS
JOHNSON COUNTY
STATE OF IOWA

MMS CONSULTANTS, INC.

Date:	7-27-2015
Designed by: RLA	Field Book No.:
Drawn by: MAK	Scale: 1"=80'
Checked by: RLA	Sheet No.: 12
Project No.: IOWA CITY 5136012	of: 15

K:\Civil\Projects\IowaCity\5136012-ONE\Sheets\5136012-CNST.dwg, 1/12/2016 4:27:01 PM, mak



PHASE 5 NOTES:
1. PHASE 1-4 SHALL BE COMPLETED BEFORE STARTING PHASE 5.
2. PLACE TRAFFIC CONTROL DEVICES AS REQUIRED FOR PAVEMENT REMOVAL AND REPLACEMENT OF SUNSET STREET.
3. TRAFFIC CONTROL FOR THIS STAGE SHALL CONFORM TO IDOT STANDARD ROAD PLAN TC-252.
4. TRAFFIC CONTROL MEASURES SHALL BE IN PLACE AT ALL TIMES THAT THE CONTRACTOR IS PERFORMING WORK.

GENERAL TRAFFIC CONTROL NOTES:

1. TRAFFIC CONTROL FOR THIS PROJECT SHALL CONFORM TO THE MANUAL ON UNIFORM CONTROL DEVICES (MUTCD), LATEST VERSION.
2. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR.
3. TRAFFIC CONTROL MEASURES SHALL BE IN PLACE AT ALL TIMES THAT THE CONTRACTOR IS PERFORMING WORK.
4. A 'SIDEWALK CLOSED' SIGN ON A TYPE II BARRICADE SHALL BE POSTED ON SIDEWALKS PRIOR TO ANY PORTION OF REMOVED OR UNSUITABLE SIDEWALK.
5. TEMPORARY PORTABLE SAFETY FENCE AS SPECIFIED IN SECTION 00 74 13 ITEM 10.E SHALL BE PLACED AROUND ANY OPEN TRENCH DURING NON WORKING HOURS. TEMPORARY PORTABLE SAFETY FENCE SHALL BE PLACED BETWEEN ANY PEDESTRIAN ROUTE AND THE CONSTRUCTION LIMITS DURING PERIODS OF CONSTRUCTION ACTIVITY. IT IS NOT REQUIRED THAT THE SAFETY FENCE BE INSTALLED AND MAINTAINED ALONG THE ENTIRE LENGTH OF THE PROJECT THROUGHOUT THE DURATION OF CONSTRUCTION.

PHASE 5

SUNSET STREET PAVEMENT REMOVAL AND REPLACEMENT AND WATERMAIN EXTENSION

MMS
CIVIL ENGINEERS
LAND PLANNERS
LAND SURVEYORS
LANDSCAPE ARCHITECTS
ENVIRONMENTAL SPECIALISTS
1917 S. GILBERT ST.
IOWA CITY, IOWA 52240
(319) 351-8282
www.mmsconsultants.net

Date	Revision
08/07/15	90% CONSTRUCTION SET
10/27/15	PER CITY COMMENTS -JJR
11/04/15	PER CITY COMMENTS -JJR/MAK
01/08/15	PER CITY COMMENTS -PVA/MAK

TRAFFIC CONTROL PLAN: PHASE 5

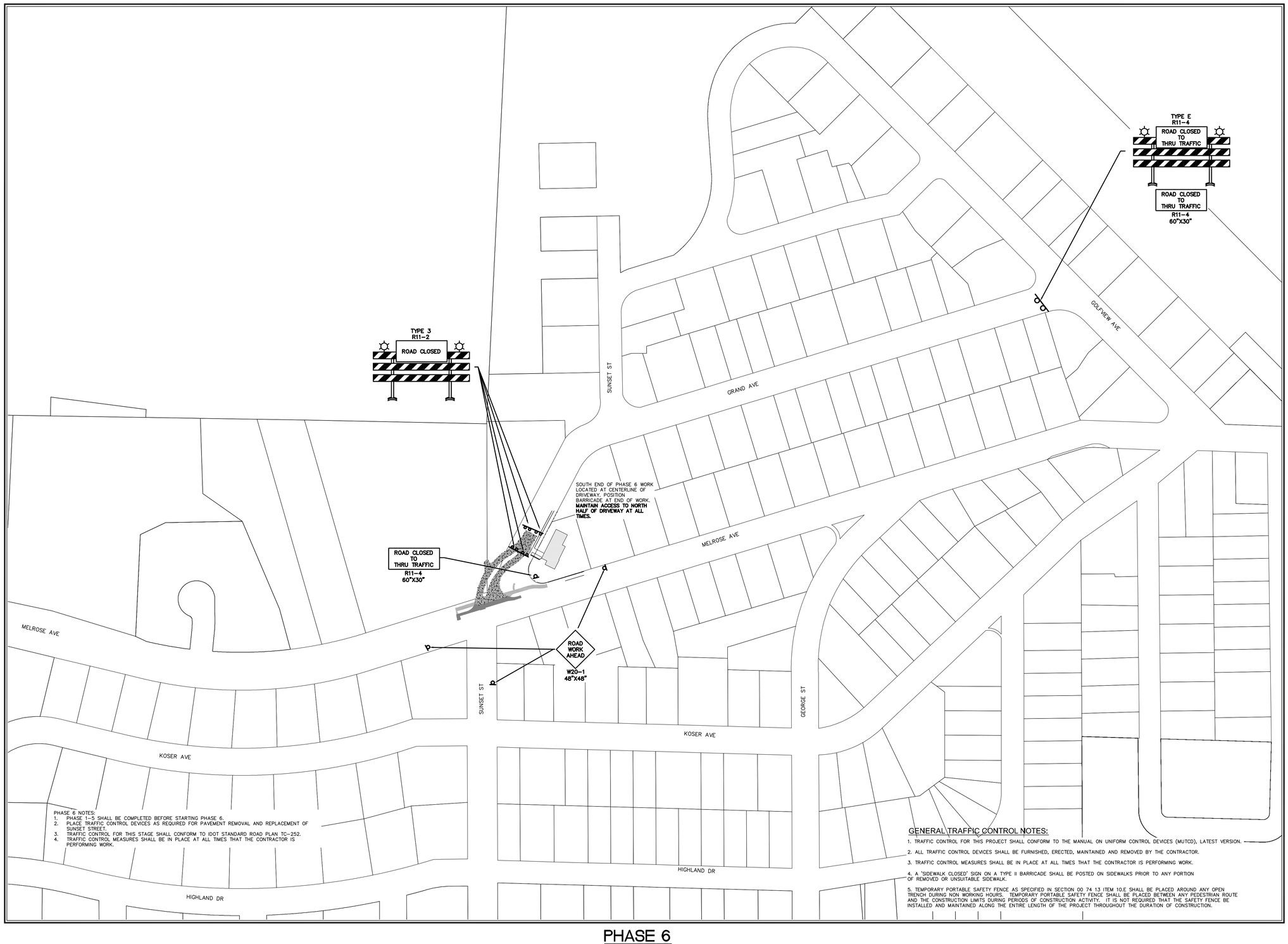
ONE UNIVERSITY PLACE
PUBLIC IMPROVEMENTS

UNIVERSITY HEIGHTS
JOHNSON COUNTY
STATE OF IOWA

MMS CONSULTANTS, INC.

Date:	7-27-2015
Designed by: RLA	Field Book No:
Drawn by: MAK	Scale: N/A
Checked by: RLA	Sheet No: 13
Project No: IOWA CITY 5136012	of 15

S:\IA\IOWA CITY\5136012\CAD\SHEETS\TRAFFIC CONTROL PLAN.dwg, 1/13/2016 2:26:1 PM, mak



PHASE 6

SUNSET STREET PAVEMENT REMOVAL AND REPLACEMENT AND WATERMAIN EXTENSION

MMS
CIVIL ENGINEERS
LAND PLANNERS
LAND SURVEYORS
LANDSCAPE ARCHITECTS
ENVIRONMENTAL SPECIALISTS
1917 S. GILBERT ST.
IOWA CITY, IOWA 52240
(319) 351-8282
www.mmsconsultants.net

Date	Revision
08/07/15	90% CONSTRUCTION SET
10/27/15	PER CITY COMMENTS -JJR
11/04/15	PER CITY COMMENTS -JJR/MAK
01/08/15	PER CITY COMMENTS -PVA/MAK

TRAFFIC CONTROL PLAN: PHASE 6

ONE UNIVERSITY PLACE
PUBLIC IMPROVEMENTS

UNIVERSITY HEIGHTS
JOHNSON COUNTY
STATE OF IOWA

MMS CONSULTANTS, INC.

Date: 7-27-2015	
Designed by: RLA	Field Book No:
Drawn by: MAK	Scale: N/A
Checked by: RLA	Sheet No: 14
Project No: IOWA CITY 5136012	of: 15

S:\1\51\36\02\Civil\Sheets\Phase 6.dwg, 1/8/2016 8:37:21 PM, mak

DETOUR NOTES:
1. PHASE 1-4 SHALL BE COMPLETED BEFORE STARTING PHASE 5.
2. PLACE TRAFFIC CONTROL DEVICES AS REQUIRED FOR PAVEMENT REMOVAL AND REPLACEMENT OF SUNSET STREET.
3. TRAFFIC CONTROL FOR THIS STAGE SHALL CONFORM TO IDOT STANDARD ROAD PLAN TC-252.
4. TRAFFIC CONTROL MEASURES SHALL BE IN PLACE AT ALL TIMES THAT THE CONTRACTOR IS PERFORMING WORK.

GENERAL TRAFFIC CONTROL NOTES:

1. TRAFFIC CONTROL FOR THIS PROJECT SHALL CONFORM TO THE MANUAL ON UNIFORM CONTROL DEVICES (MUTCD), LATEST VERSION.
2. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR.
3. TRAFFIC CONTROL MEASURES SHALL BE IN PLACE AT ALL TIMES THAT THE CONTRACTOR IS PERFORMING WORK.
4. A 'SIDEWALK CLOSED' SIGN ON A TYPE II BARRICADE SHALL BE POSTED ON SIDEWALKS PRIOR TO ANY PORTION OF REMOVED OR UNSUITABLE SIDEWALK.
5. TEMPORARY PORTABLE SAFETY FENCE AS SPECIFIED IN SECTION 00 74 13 ITEM 10.E SHALL BE PLACED AROUND ANY OPEN TRENCH DURING NON WORKING HOURS. TEMPORARY PORTABLE SAFETY FENCE SHALL BE PLACED BETWEEN ANY PEDESTRIAN ROUTE AND THE CONSTRUCTION LIMITS DURING PERIODS OF CONSTRUCTION ACTIVITY. IT IS NOT REQUIRED THAT THE SAFETY FENCE BE INSTALLED AND MAINTAINED ALONG THE ENTIRE LENGTH OF THE PROJECT THROUGHOUT THE DURATION OF CONSTRUCTION.

DETOUR ROUTE

CIVIL ENGINEERS
LAND PLANNERS
LAND SURVEYORS
LANDSCAPE ARCHITECTS
ENVIRONMENTAL SPECIALISTS
1917 S. GILBERT ST.
IOWA CITY, IOWA 52240
(319) 351-8282
www.mmsconsultants.net

Date	Revision
08/07/15	90% CONSTRUCTION SET
10/27/15	PER CITY COMMENTS -JJR
11/04/15	PER CITY COMMENTS -JJR/MAK
01/08/15	PER CITY COMMENTS -PVA/MAK

TRAFFIC CONTROL PLAN: WESTBOUND DETOUR ROUTE FOR PHASES 2 AND 3

ONE UNIVERSITY PLACE PUBLIC IMPROVEMENTS

UNIVERSITY HEIGHTS
JOHNSON COUNTY
STATE OF IOWA

MMS CONSULTANTS, INC.

Date: 7-27-2015	
Designed by: RLA	Field Book No:
Drawn by: MAK	Scale: 1"=200'
Checked by: RLA	Sheet No: 15
Project No: IOWA CITY 5136012	of: 15