

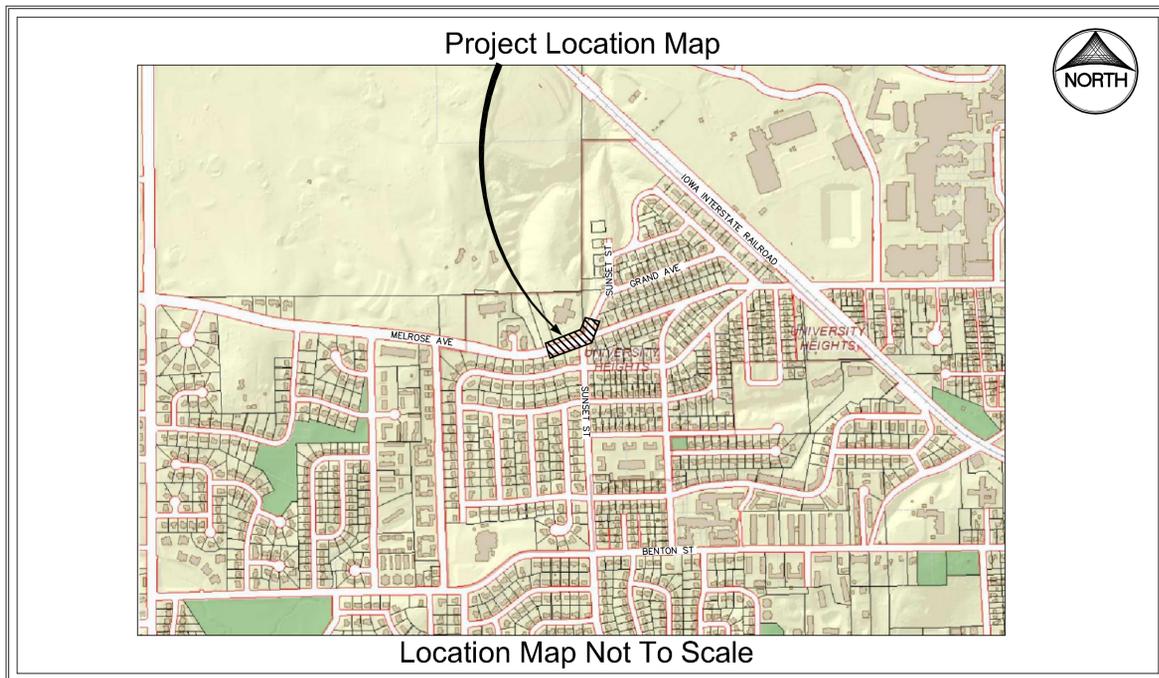
# ONE UNIVERSITY PLACE - PUBLIC IMPROVEMENTS

## UNIVERSITY HEIGHTS, IOWA



CIVIL ENGINEERS  
LAND PLANNERS  
LAND SURVEYORS  
LANDSCAPE ARCHITECTS  
ENVIRONMENTAL SPECIALISTS

1917 S. GILBERT ST.  
IOWA CITY, IOWA 52240  
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**UTILITIES**

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

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.

**STANDARD LEGEND AND NOTES**

---	PROPERTY &/OR BOUNDARY LINES	
---	CONGRESSIONAL SECTION LINES	
---	EXISTING RIGHT-OF-WAY 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	
---	RECORDED DIMENSIONS	
---	CURVE SEGMENT NUMBER	
(R)	22-1	
-EXIST-	-PROP-	
○	○	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
○	○	WATER LINES
○	○	ELECTRICAL LINES
○	○	TELEPHONE LINES
○	○	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.

Date	Revision
08/07/15	90% CONSTRUCTION SET
10/27/15	PER CITY COMMENTS -JUR
11/04/15	PER CITY COMMENTS -JRM/MAK
01/08/15	PER CITY COMMENTS -PVA/MAK
02/09/15	PER CITY COMMENTS -RLA/MAK
02/25/15	PER CITY COMMENTS -RLA/MAK

BENCHMARK INFORMATION		HORIZONTAL CONTROL			
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 22.82' EAST/NORTHEAST OF A POWER POLE WITH A TRANSFORMER. ELEVATION: 776.60 (NAVD 88) DATUM	POINT	NORTHING	EASTING	DESCRIPTION
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	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 TAPER'S 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.

### Sheet Index

1.	COVER SHEET
2.	DETAILS
3.	DETAILS AND OFFSITE TEMPORARY SIDEWALK GRADING
4.	DEMOLITION PLAN
5.	GRADING AND EROSION CONTROL PLAN
6.	SITE RESTORATION PLAN
7.	RETAINING WALL PLAN
8.	UTILITY PLAN
9.	ELECTRICAL PLAN
10.	DIMENSION PLAN
11.	PAVEMENT JOINTING PLAN
12.	STRIPING AND SIGNAGE PLAN
13.	TRAFFIC CONTROL PLAN: PHASE 1
14.	TRAFFIC CONTROL PLAN: PHASE 2 & 7
15.	TRAFFIC CONTROL PLAN: PHASE 3A
16.	TRAFFIC CONTROL PLAN: PHASE 3B
17.	TRAFFIC CONTROL PLAN: PHASE 3C
18.	TRAFFIC CONTROL PLAN: PHASE 4
19.	TRAFFIC CONTROL PLAN: PHASE 5
20.	TRAFFIC CONTROL PLAN: PHASE 6
21.	TRAFFIC CONTROL PLAN: WESTBOUND DETOUR ROUTE FOR PHASES 1 AND 3
22.	TRAFFIC SIGNAL NOTES AND LEGEND
23.	TRAFFIC SIGNAL QUANTITIES
24.	TRAFFIC SIGNAL PLAN
25.	TRAFFIC SIGNAL WIRING DIAGRAM
26.	TRAFFIC SIGNAL DETAILS

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.

JUSTIN H. CAMPBELL, P.E. Iowa Lic. No. 19546

My license renewal date is December 31, 20\_\_.

Pages or sheets covered by this seal:

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.

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

My license renewal date is December 31, 20\_\_.

Pages or sheets covered by this seal:

### 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

IOWA CITY Project No: 5136012

of 26







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### DEMOLITION PLAN

### ONE UNIVERSITY PLACE PUBLIC IMPROVEMENTS

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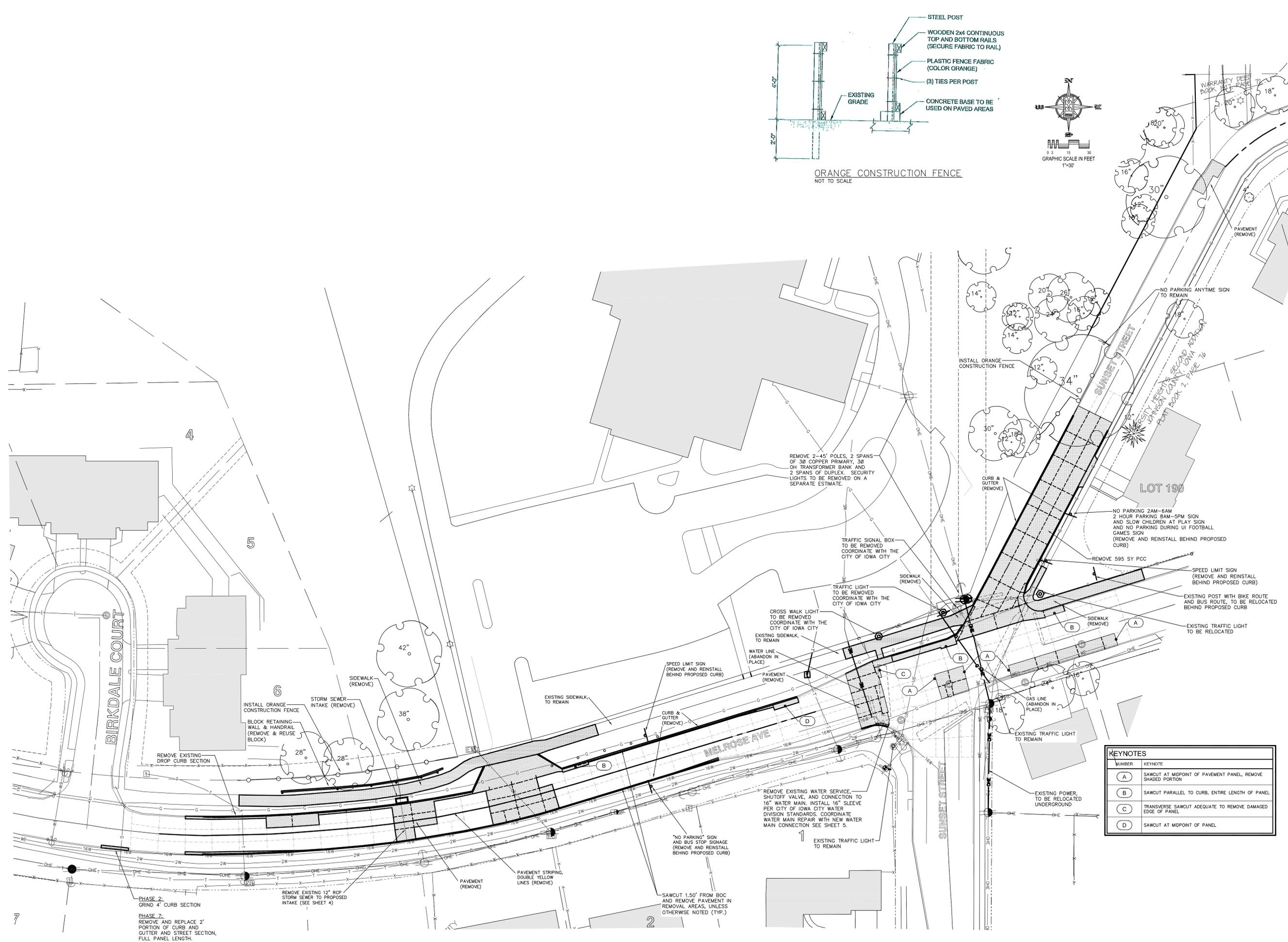
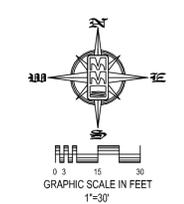
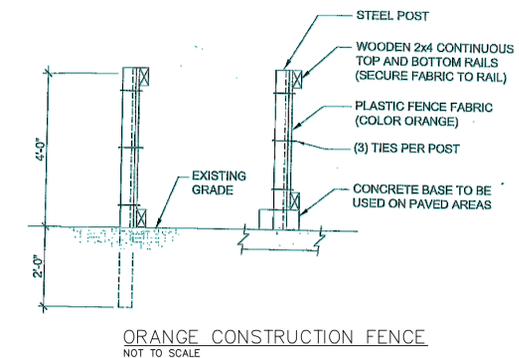
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Checked by: RLA Sheet No:

Project No: 4

IOWA CITY

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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



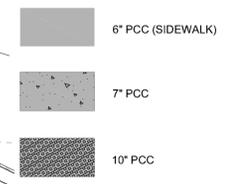
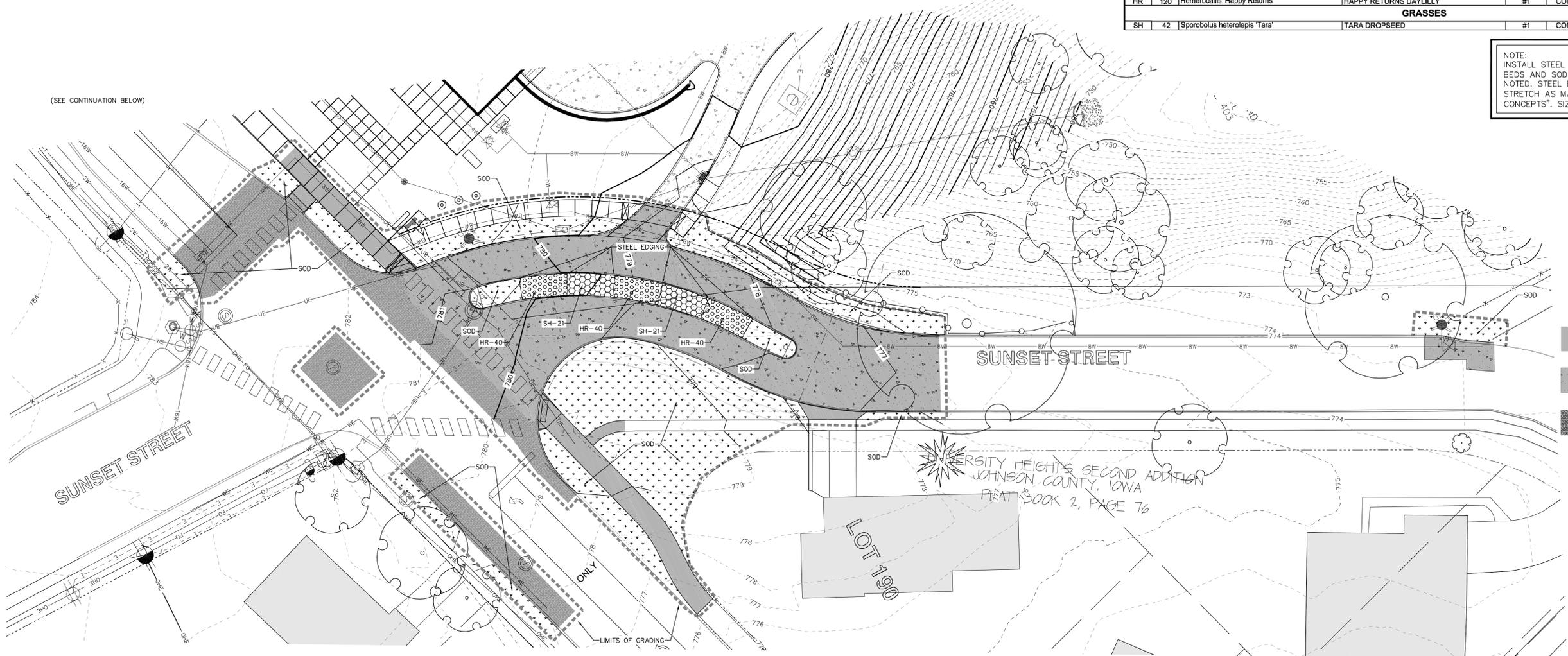


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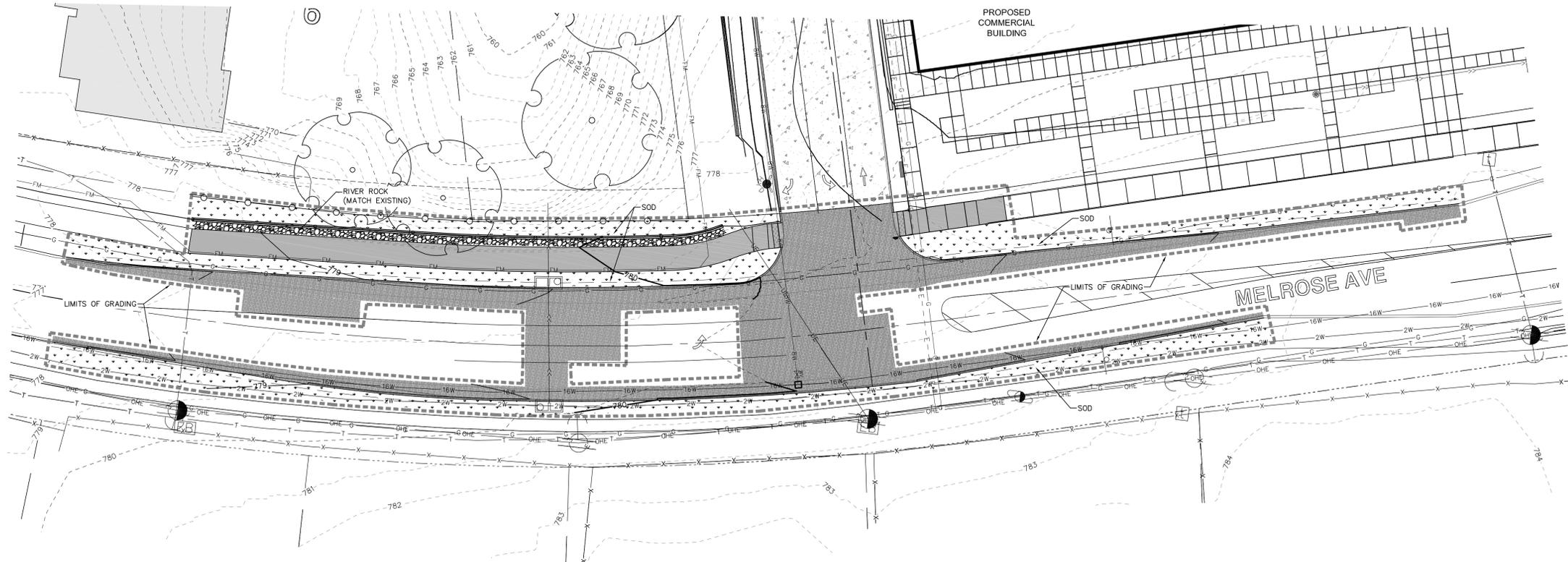
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PLANT SCHEDULE						
KEY	QTY.	BOTANICAL NAME	COMMON NAME	SIZE	ROOT	SPACING & REMARKS
<b>PERENNIALS</b>						
HR	120	Hemerocallis 'Happy Returns'	HAPPY RETURNS DAYLILLY	#1	CONT.	1'-8" O.C.
<b>GRASSES</b>						
SH	42	Sporobolus heterolepis 'Tara'	TARA DROPSEED	#1	CONT.	2'-6" O.C.

NOTE:  
 INSTALL STEEL EDGING BETWEEN ALL PLANT  
 BEDS AND SOD/SEED AREAS UNLESS OTHERWISE  
 NOTED. STEEL EDGING SHALL BE BORDER  
 STRETCH AS MANUFACTURED BY "BORDER  
 CONCEPTS", SIZE 1/8"x6". COLOR: BLACK.



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**SITE RESTORATION PLAN**

**ONE UNIVERSITY PLACE PUBLIC IMPROVEMENTS**

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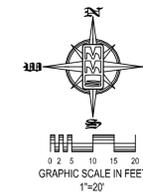
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Checked By: RLA Sheet No: 6

Project No: IOWA CITY 5136012 of 26

GRAPHIC SCALE IN FEET  
 1"=20'

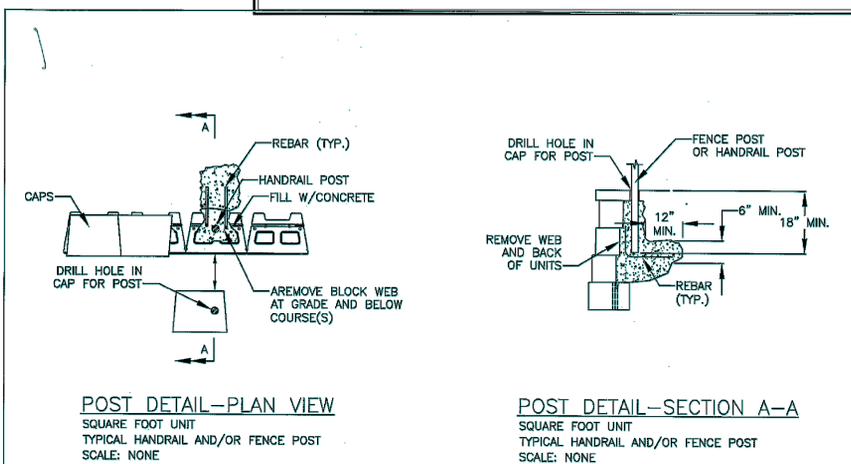
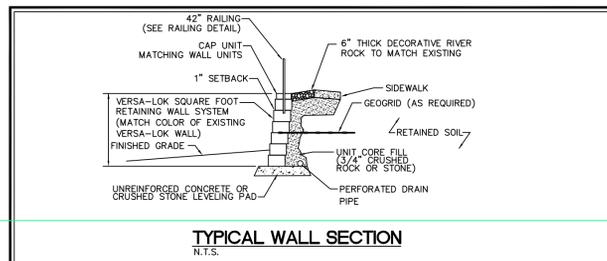
0 2.5 5 10 15 20



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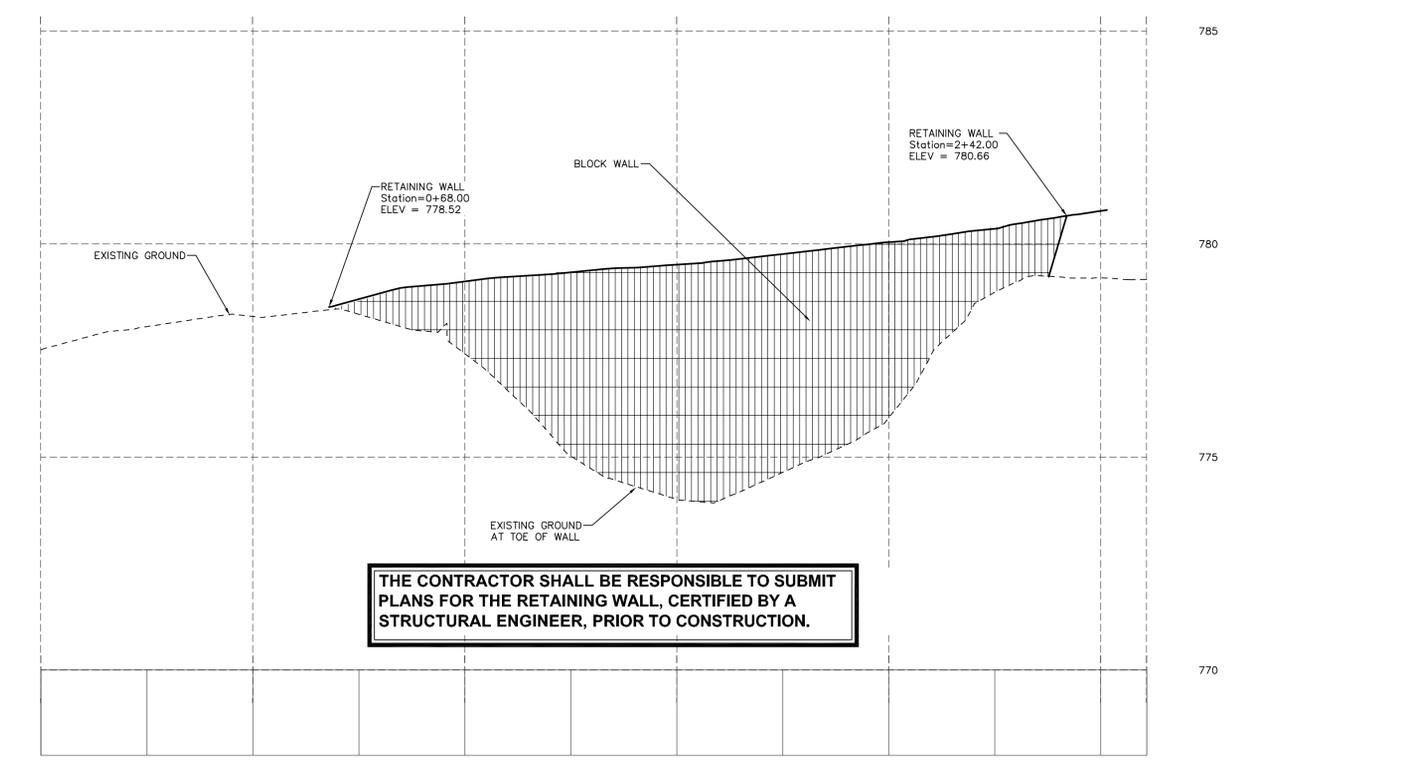
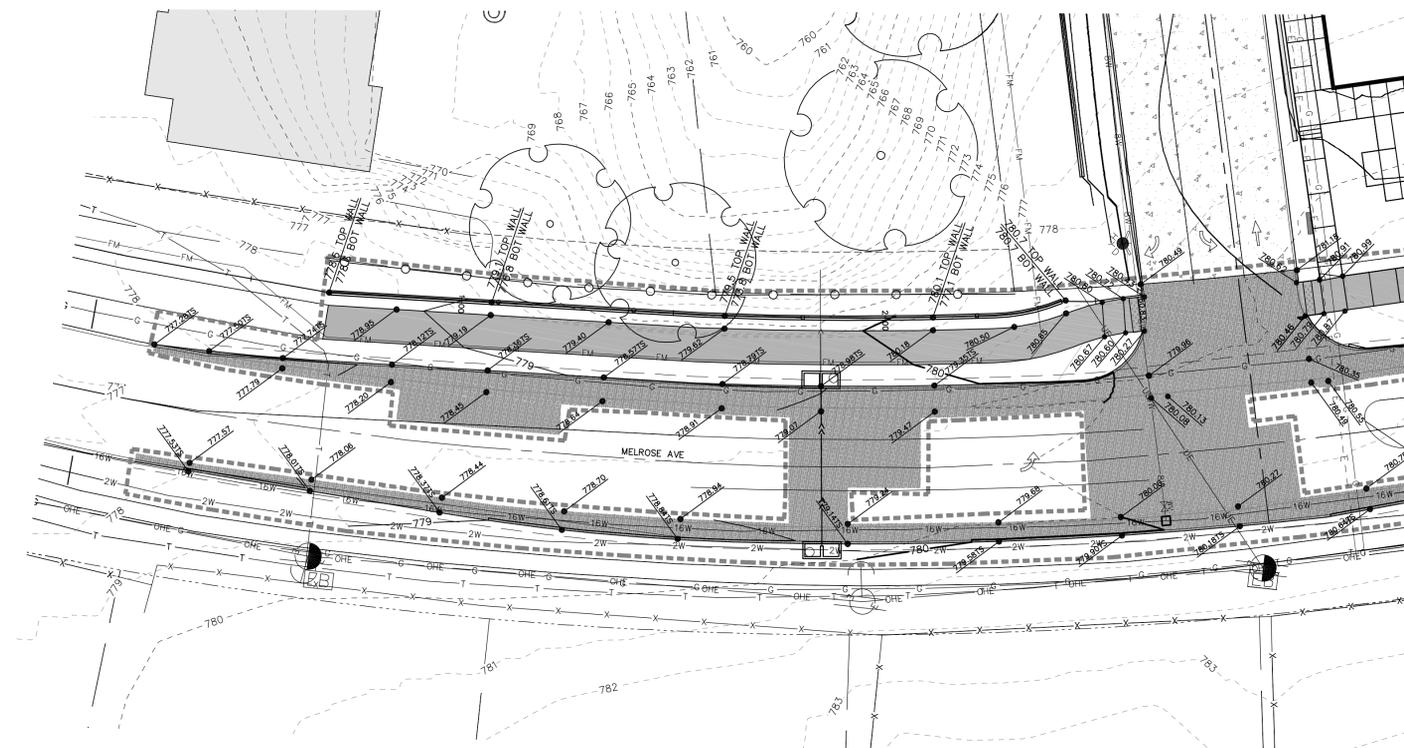
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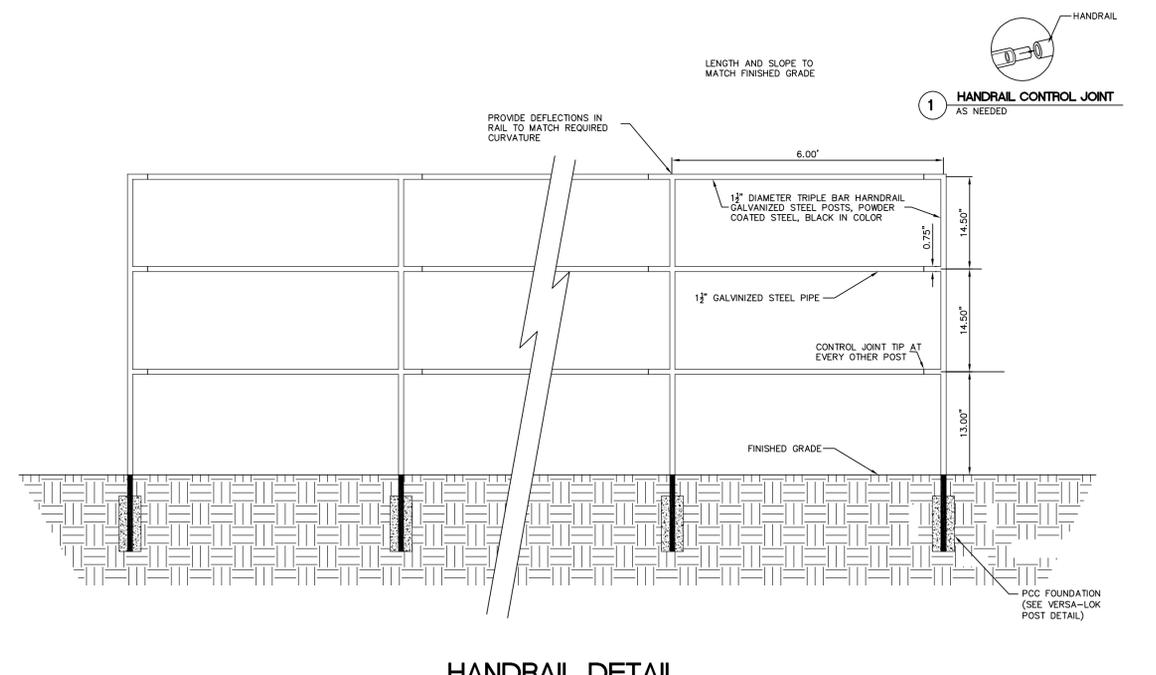
THESE PRELIMINARY DETAILS ARE INTENDED AS AN AID IN DESIGNING ATTRACTIVE, DURABLE, PERMANENT WALLS WITH VERSA-LOK UNITS. FINAL DETERMINATION OF THE SUITABILITY OF ANY INFORMATION OR MATERIAL FOR THE USE CONTAINED AND ITS MANNER OF USE IS THE SOLE RESPONSIBILITY OF THE USER. A FINAL PROJECT SPECIFIC DESIGN SHOULD BE PREPARED BY A QUALIFIED, LICENSED, PROFESSIONAL ENGINEER.



NAME	DATE
VERSA-LOK SQUARE FOOT DETAILS	1/27/04
POST DETAIL	10/00/07



THE CONTRACTOR SHALL BE RESPONSIBLE TO SUBMIT PLANS FOR THE RETAINING WALL, CERTIFIED BY A STRUCTURAL ENGINEER, PRIOR TO CONSTRUCTION.



RETAINING WALL PLAN AND PROFILE

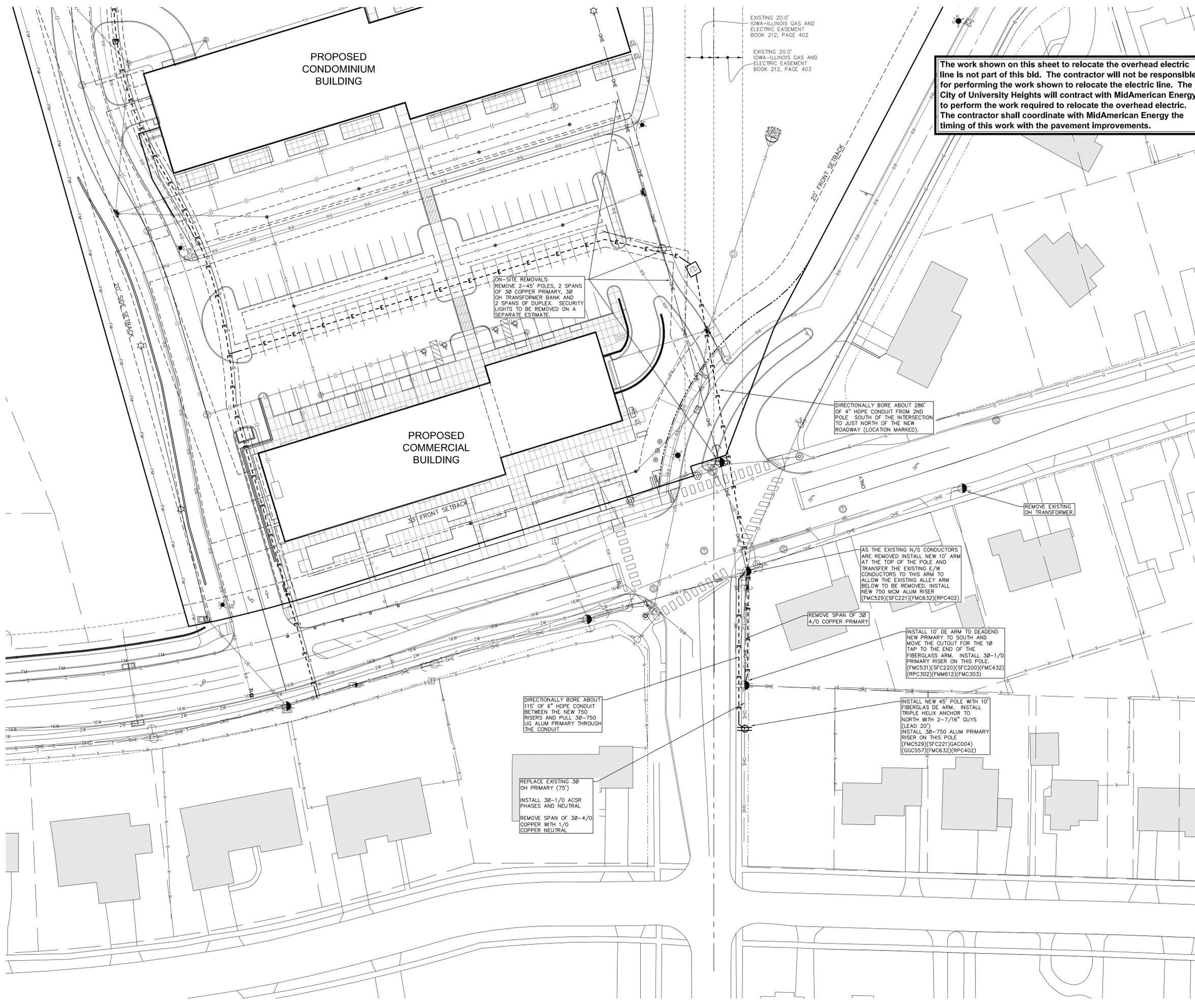
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JOHNSON COUNTY  
STATE OF IOWA

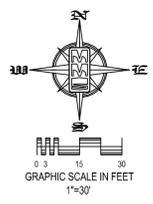
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Checked By:	RLA
Project No:	IOWA CITY 5136012
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Scale:	1"=20'
Sheet No:	7





The work shown on this sheet to relocate the overhead electric line is not part of this bid. The contractor will not be responsible for performing the work shown to relocate the electric line. The City of University Heights will contract with MidAmerican Energy to perform the work required to relocate the overhead electric. The contractor shall coordinate with MidAmerican Energy the timing of this work with the pavement improvements.



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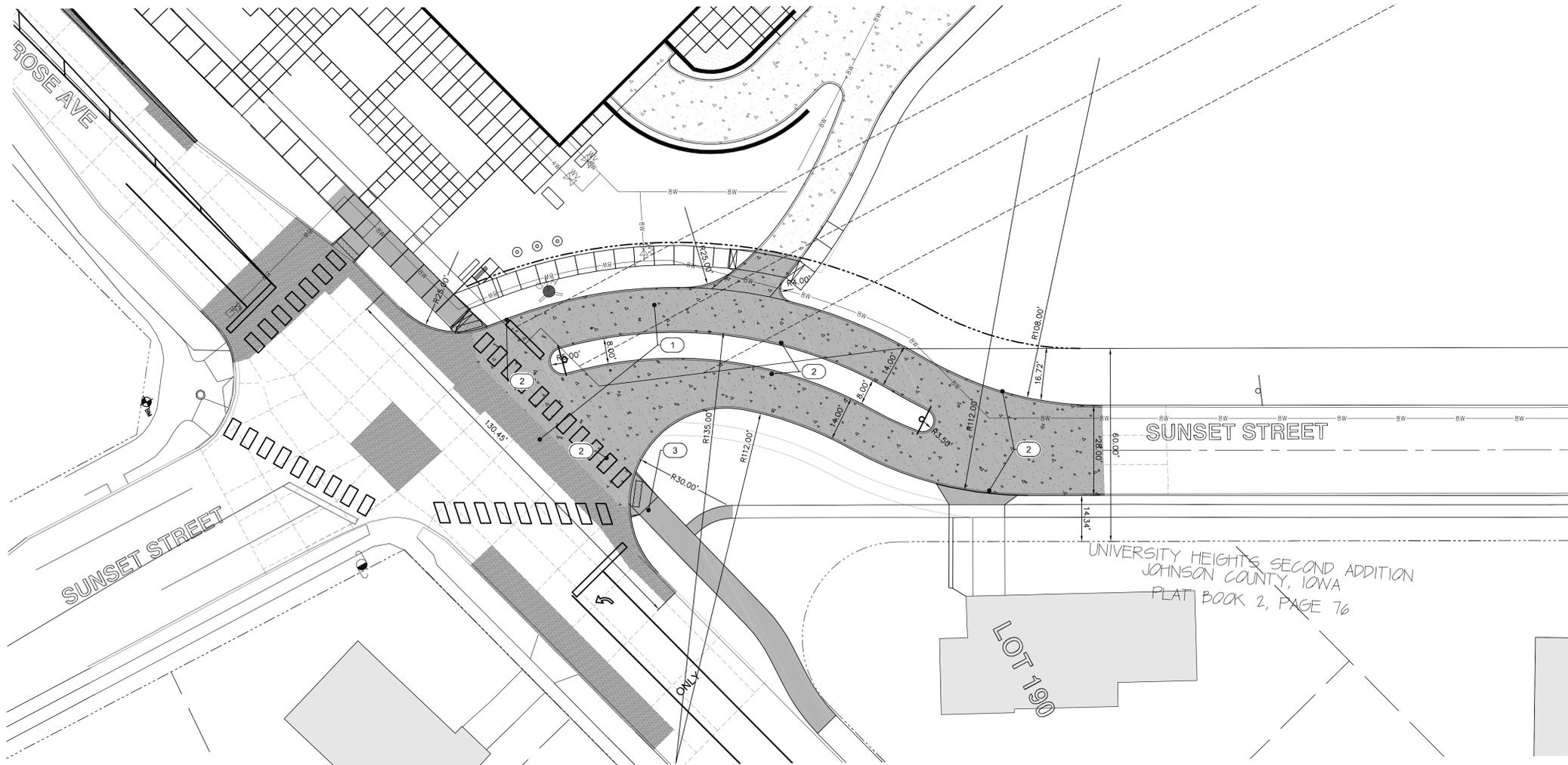
**ELECTRICAL PLAN**

**ONE UNIVERSITY PLACE PUBLIC IMPROVEMENTS**

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 JOHNSON COUNTY  
 STATE OF IOWA

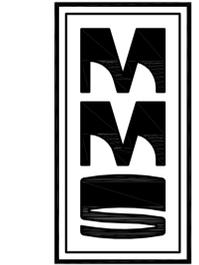
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KEYNOTES		
NUMBER	KEYNOTE	DETAIL
1	INSTALL DRIVE PER DETAIL (THICKNESS AND MATERIAL AS NOTED)	
2	INSTALL 6" STANDARD CURB	
3	INSTALL 6" P.C.C. SIDEWALK PER SPECIFICATIONS	
4	INSTALL CURB RAMP PER ADA REQUIREMENTS	
5	PROPOSED MODULAR BLOCK RETAINING WALL WITH HANDRAIL. BLOCK FROM EXISTING WALL CAN BE REUSED IF THE NEW BLOCK MATCHES THE COLOR. (GEOTECHNICAL ENGINEER SHALL CERTIFY WALL PLANS PRIOR TO CONSTRUCTION)	

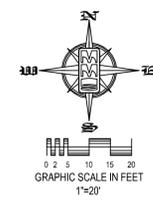
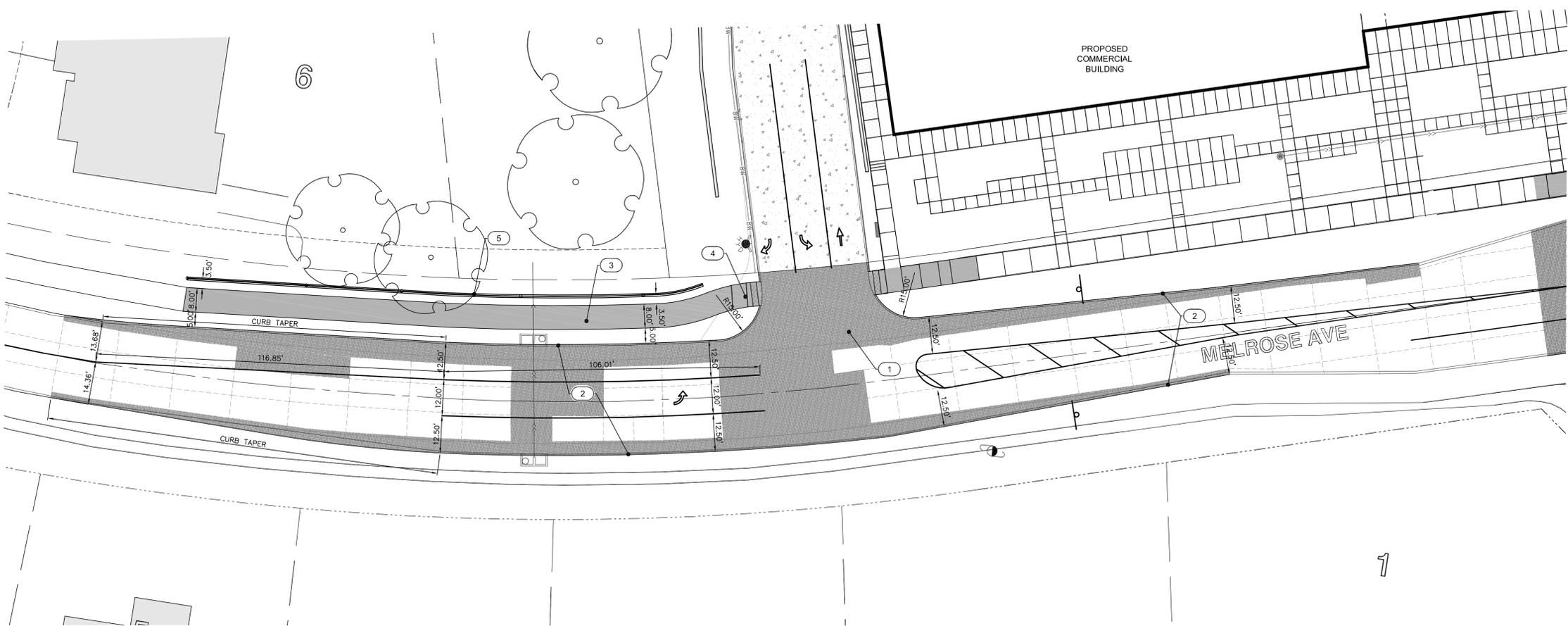
- 6" PCC (SIDEWALK)
- 7" PCC
- 10" PCC



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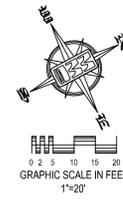
**DIMENSION PLAN**

**ONE UNIVERSITY PLACE PUBLIC IMPROVEMENTS**

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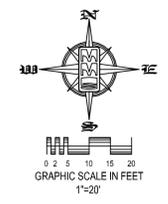
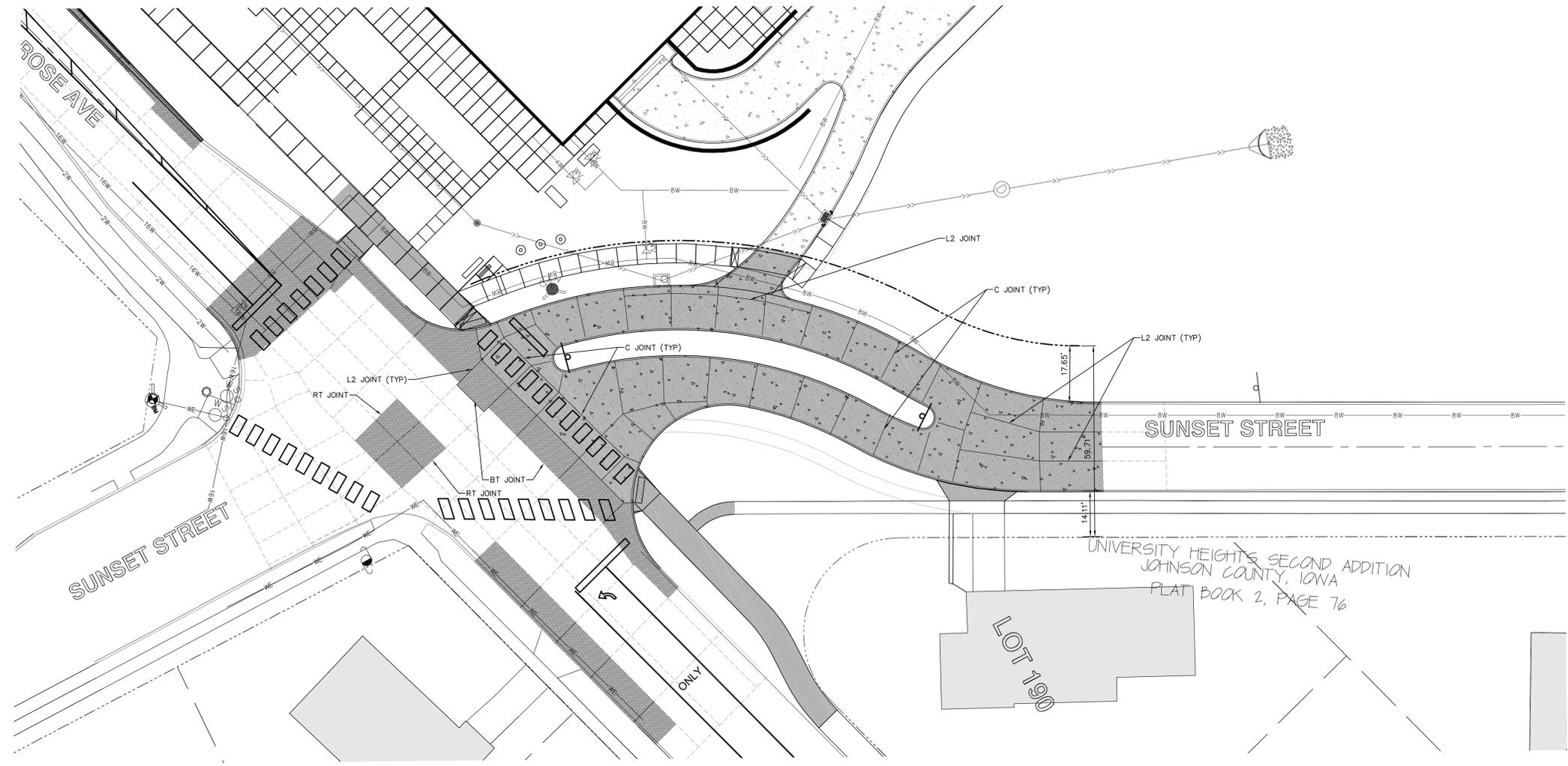
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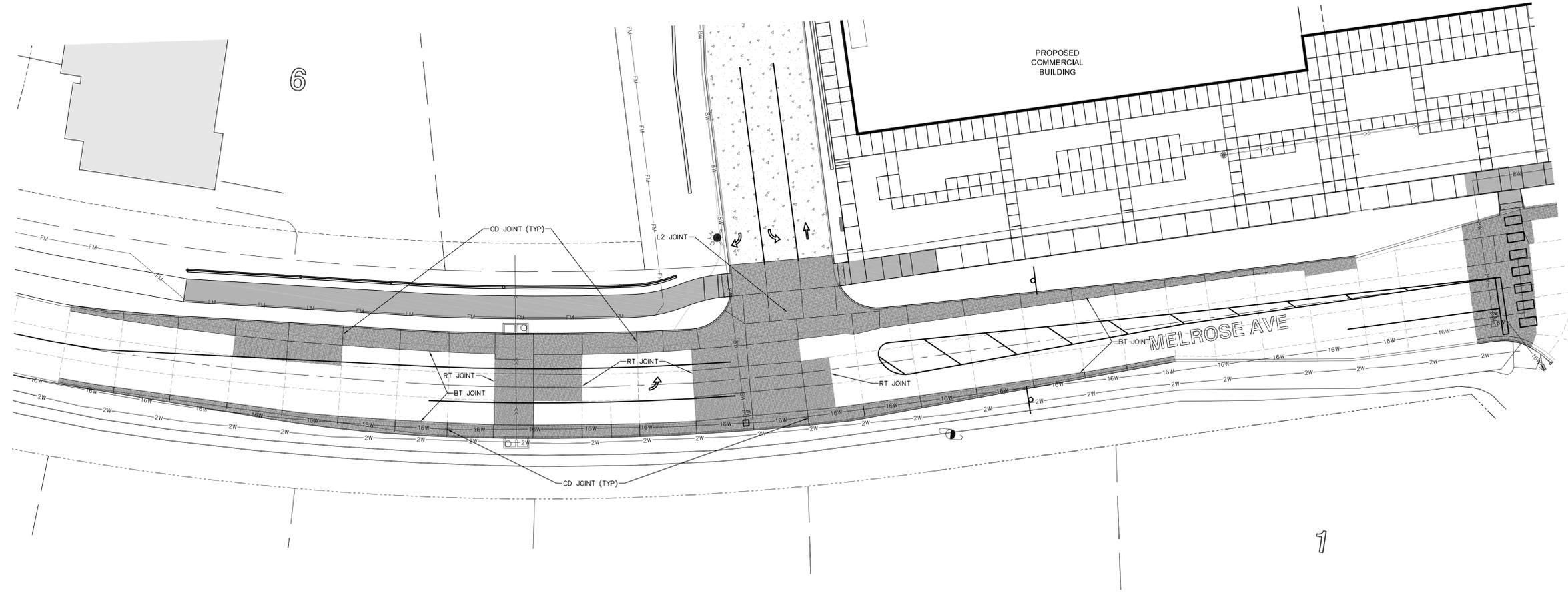
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**PAVEMENT  
 JOINTING  
 PLAN**

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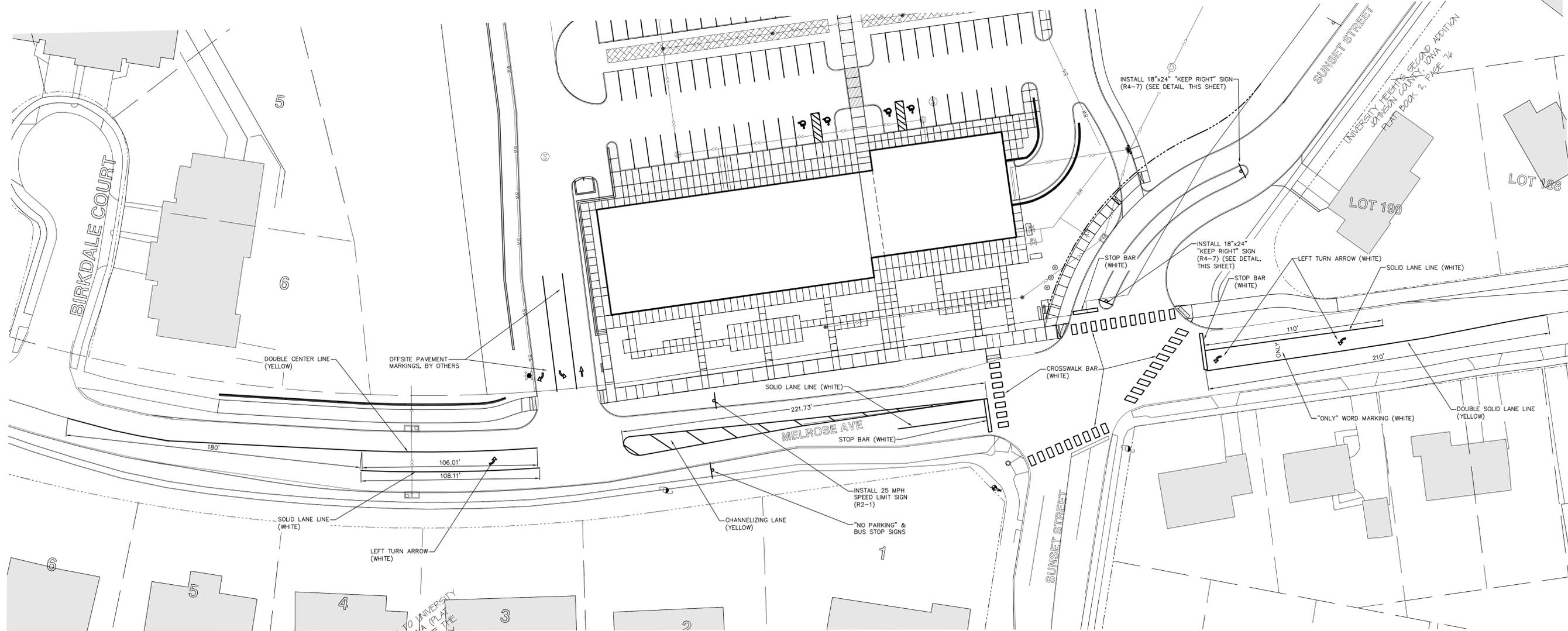
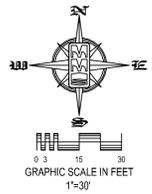
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NOTE: ALL PAVEMENT MARKINGS SHALL BE EXOPY MARKINGS



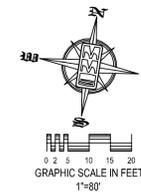
**STRIPING AND SIGNAGE PLAN**

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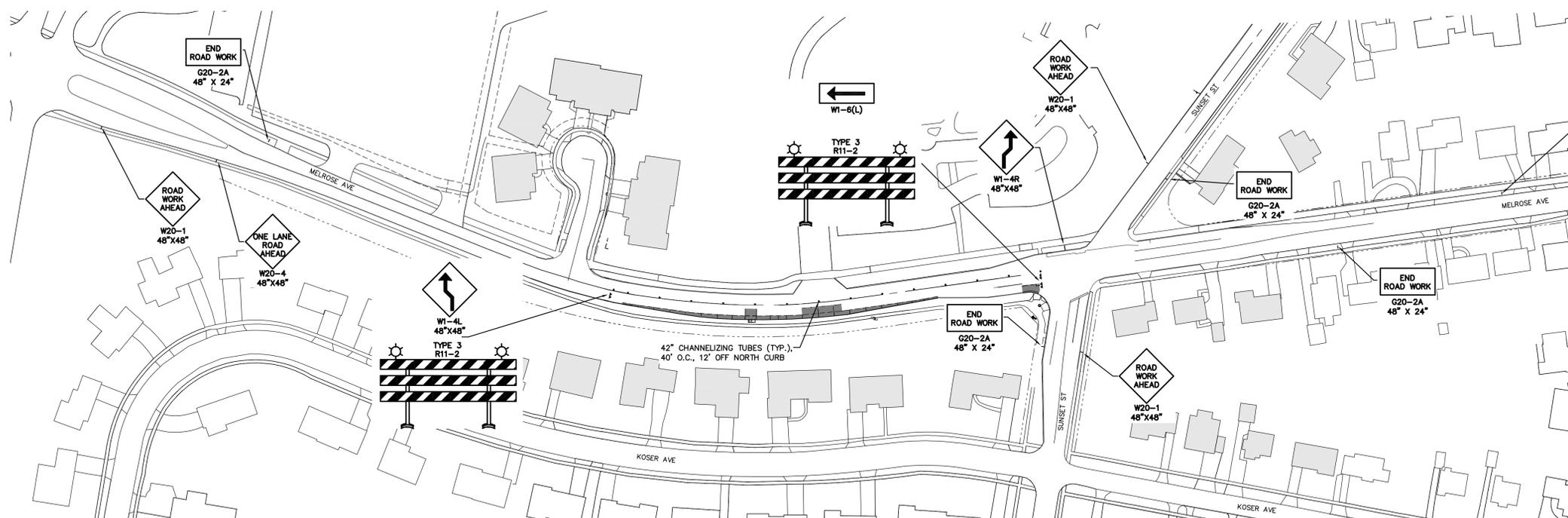
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**PHASE 1**

EASTBOUND MELROSE IMPROVEMENTS;  
EASTBOUND MELROSE AVENUE TRAFFIC  
DETOURED TO NORTH SIDE OF MELROSE AVENUE.  
WESTBOUND MELROSE AVENUE TRAFFIC FOLLOWS  
DETOUR ROUTE, SEE SHEET 21.

- PHASE 1 NOTES:**
1. PHASE 1 SHALL BE COMPLETED PRIOR TO STARTING PHASE 2.
  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.

**TRAFFIC CONTROL PLAN:  
PHASE 1**

**ONE UNIVERSITY PLACE  
PUBLIC IMPROVEMENTS**

UNIVERSITY HEIGHTS  
JOHNSON COUNTY  
STATE OF IOWA

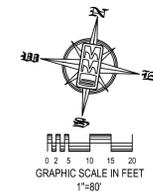
**GENERAL TRAFFIC CONTROL NOTES:**

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 CONSULTANTS, INC.**

Date:	7-27-2015
Designed by:	RLA
Drawn by:	MAK
Checked by:	RLA
Project No.:	IOWA CITY 5136012
Field Book No.:	
Scale:	1"=80'
Sheet No.:	13
of:	26

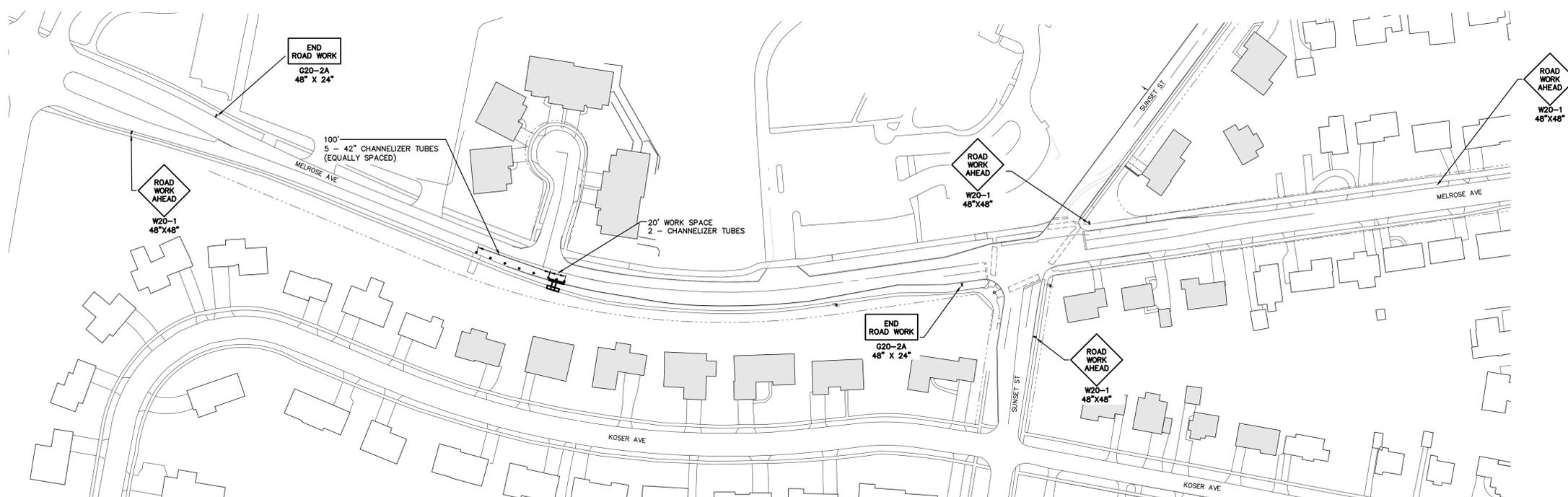
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LAND PLANNERS  
LAND SURVEYORS  
LANDSCAPE ARCHITECTS  
ENVIRONMENTAL SPECIALISTS

1917 S. GILBERT ST.  
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(319) 351-8282  
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Date	Revision
08/07/15	90% CONSTRUCTION SET
10/27/15	PER CITY COMMENTS -JUR
11/04/15	PER CITY COMMENTS -JRM/MAK
01/08/15	PER CITY COMMENTS -P/VA/MAK
02/09/15	PER CITY COMMENTS -RL/AMAK
02/25/15	PER CITY COMMENTS -RL/AMAK



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

**PHASE 7**  
REMOVAL OF TEMPORARY SIDEWALK CROSSING.

**TRAFFIC CONTROL PLAN: PHASE 2 & 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:

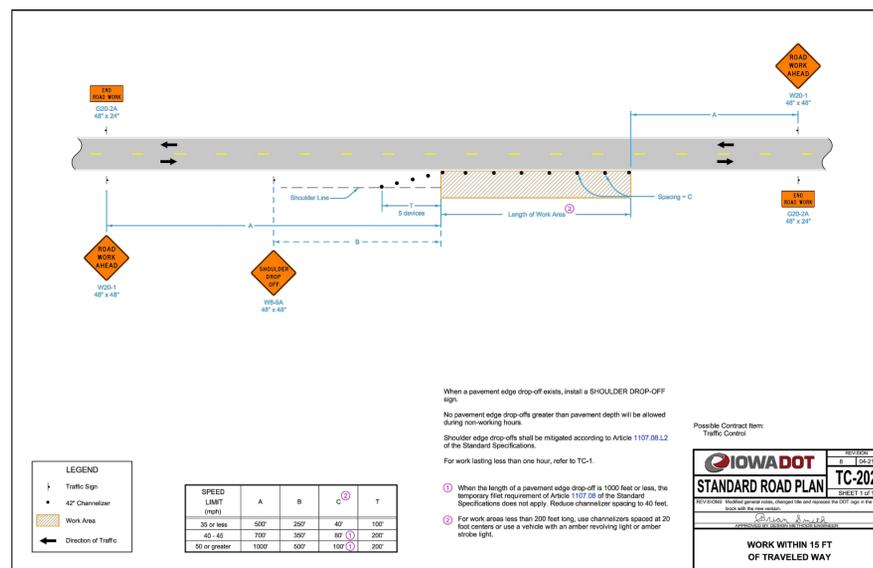
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Project No: 14

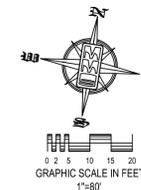
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5136012 of 26



**GENERAL TRAFFIC CONTROL NOTES:**

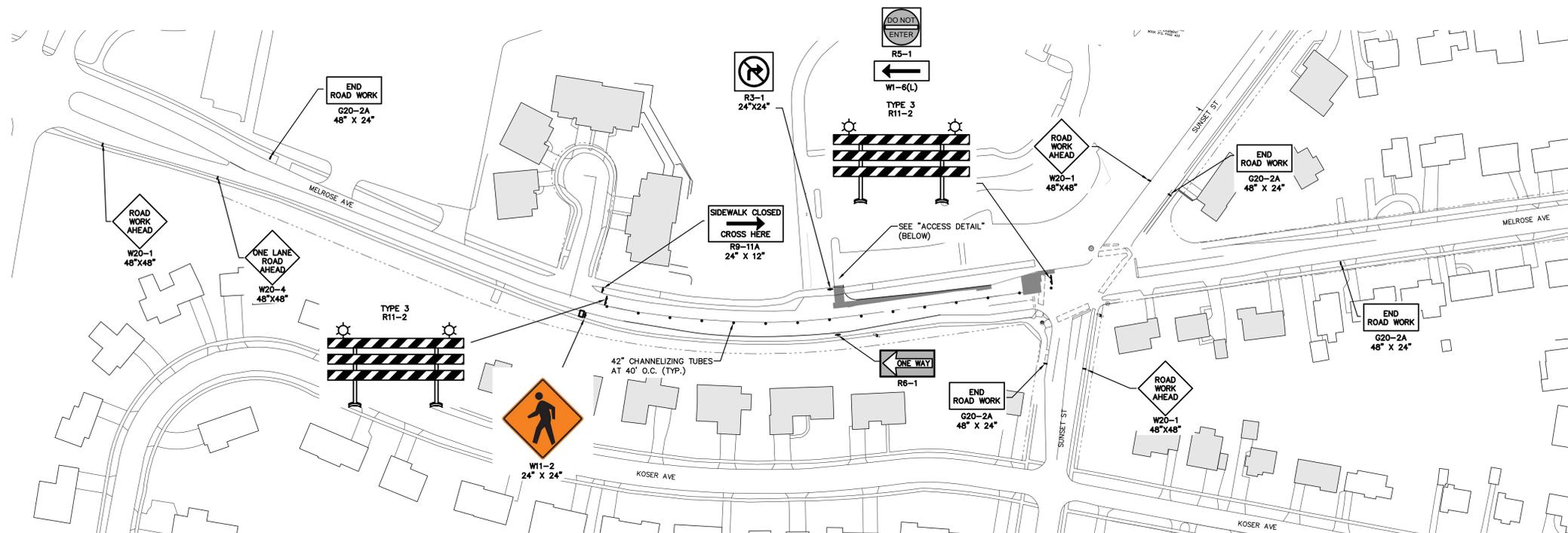
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2. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR.
3. TRAFFIC CONTROL MEASURES SHALL BE IN PLACE AT ALL TIMES THAT THE CONTRACTOR IS PERFORMING WORK.
4. A "SIDEWALK CLOSED" SIGN ON A TYPE II BARRICADE 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.



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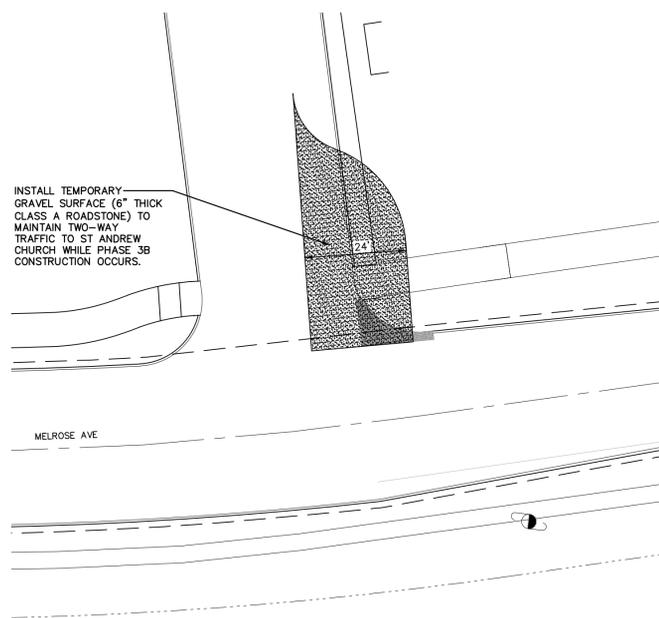
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01/08/15	PER CITY COMMENTS -P/AM/MAK
02/09/15	PER CITY COMMENTS -RL/AM/MAK
02/25/15	PER CITY COMMENTS -RL/AM/MAK



**PHASE 3A**

WESTBOUND MELROSE AVENUE IMPROVEMENTS: EAST OF ST ANDREW CHURCH DRIVEWAY.  
EASTBOUND MELROSE AVENUE TRAFFIC MAINTAINED.  
WESTBOUND MELROSE AVENUE TRAFFIC FOLLOWS DETOUR ROUTE, SEE SHEET 21.

- PHASE 3A NOTES:
1. PHASE 2 SHALL BE COMPLETED PRIOR TO STARTING PHASE 3A.
  2. PLACE TRAFFIC CONTROL DEVICES AS REQUIRED FOR PAVEMENT REMOVAL, UTILITY CONSTRUCTION, SIDEWALK CONSTRUCTION AND REPLACEMENT OF NORTH PORTION OF MELROSE AVENUE EAST OF THE ST ANDREW CHURCH DRIVEWAY.
  3. TRAFFIC CONTROL MEASURES SHALL BE MAINTAINED DURING THIS PHASE.
  4. TWO WAY TRAFFIC INTO ST ANDREW CHURCH SHALL BE MAINTAINED DURING THIS PHASE.



INSTALL TEMPORARY GRAVEL SURFACE (6" THICK CLASS A ROADSTONE) TO MAINTAIN TWO-WAY TRAFFIC TO ST ANDREW CHURCH WHILE PHASE 3B CONSTRUCTION OCCURS.

**TEMPORARY ACCESS AT ENTRANCE**

SCALE: 1"=20'

**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.

**TRAFFIC CONTROL PLAN: PHASE 3A**

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:

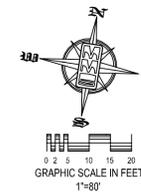
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Checked by: RLA Sheet No:

Project No: 15

IOWA CITY

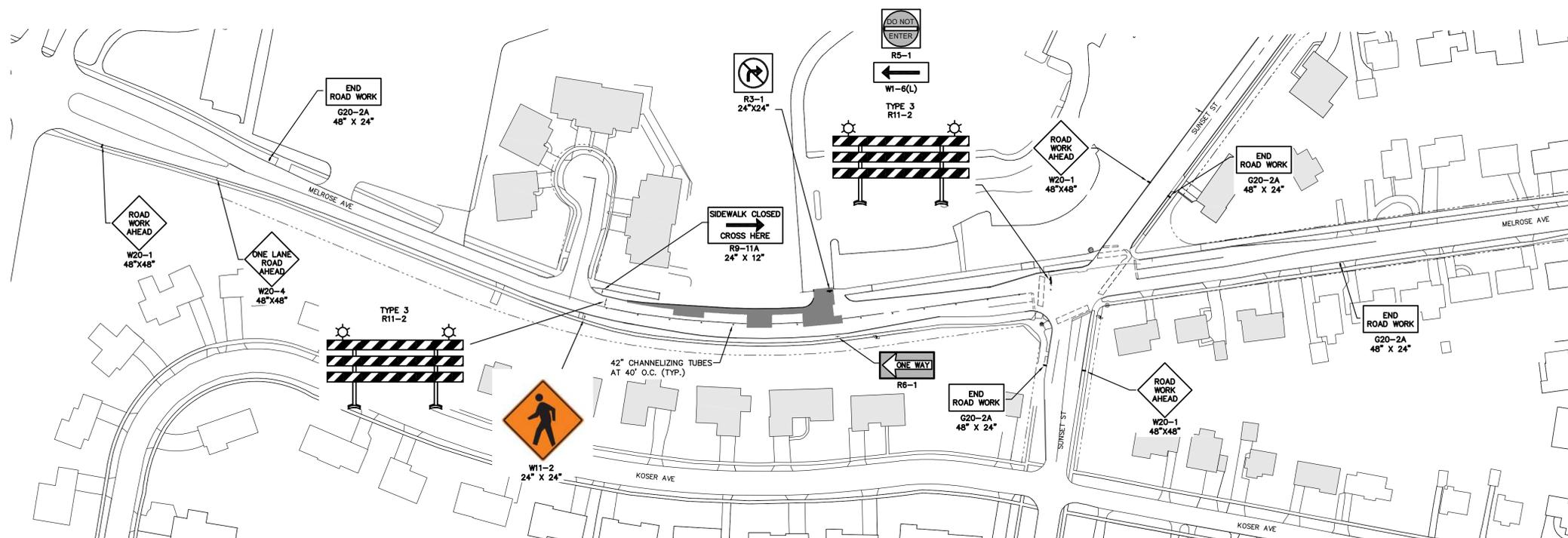
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01/08/16	PER CITY COMMENTS -P/MAK
02/09/16	PER CITY COMMENTS -RLA/MAK
02/25/16	PER CITY COMMENTS -RLA/MAK



### PHASE 3B

WESTBOUND MELROSE AVENUE IMPROVEMENTS, WEST OF ST ANDREW CHURCH DRIVEWAY.  
EASTBOUND MELROSE AVENUE TRAFFIC MAINTAINED.  
WESTBOUND MELROSE AVENUE TRAFFIC FOLLOWS DETOUR ROUTE (SEE SHEET 21).

- PHASE 3B NOTES:
1. PHASE 3A SHALL BE COMPLETED PRIOR TO STARTING PHASE 3B.
  2. PLACE TRAFFIC CONTROL DEVICES AS REQUIRED FOR PAVEMENT REMOVAL, UTILITY CONSTRUCTION, RETAINING WALL, SIDEWALK CONSTRUCTION AND REPLACEMENT OF NORTH PORTION OF MELROSE AVENUE WEST OF THE ST ANDREW CHURCH DRIVEWAY.
  3. TRAFFIC CONTROL MEASURES SHALL BE MAINTAINED DURING THIS PHASE.
  4. TWO WAY TRAFFIC INTO ST ANDREW CHURCH SHALL BE MAINTAINED DURING THIS PHASE.

#### 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.

TRAFFIC CONTROL PLAN:  
PHASE 3B

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:

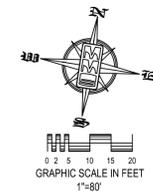
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Project No: 16

IOWA CITY

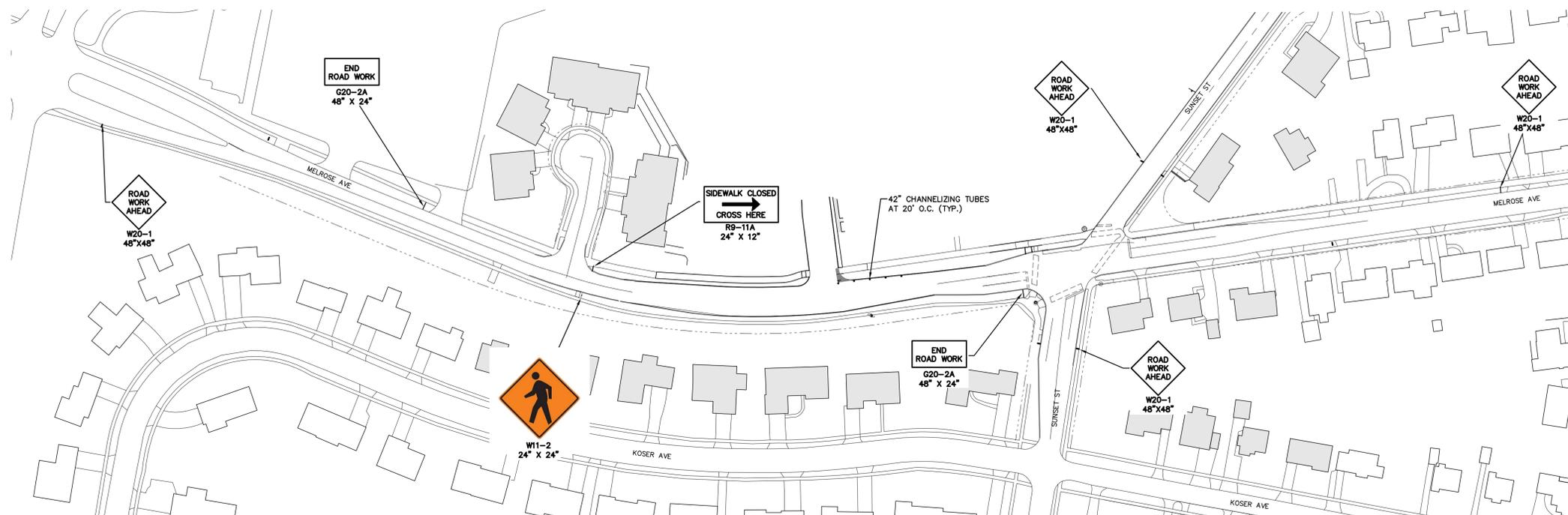
5136012 of 26



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02/09/15	PER CITY COMMENTS -RL/MAK
02/25/15	PER CITY COMMENTS -RL/MAK



**PHASE 3C**  
COMPLETION OF THE ST ANDREW CHURCH DRIVEWAY IMPROVEMENTS.  
2-WAY TRAFFIC ON MELROSE AVE MAINTAINED.

PHASE 3C NOTES:  
1. PHASE 3B SHALL BE COMPLETED PRIOR TO STARTING PHASE 3C.  
2. PLACE TRAFFIC CONTROL DEVICES AS REQUIRED FOR REMOVAL OF THE TEMPORARY GRAVEL DRIVEWAY AND PAVING THE REMAINING PORTION OF THE DRIVEWAY TO ST ANDREW CHURCH.  
3. TRAFFIC CONTROL MEASURES SHALL BE MAINTAINED DURING THIS PHASE.  
4. TWO WAY TRAFFIC INTO ST ANDREW CHURCH SHALL BE MAINTAINED DURING THIS PHASE.

**TRAFFIC CONTROL PLAN: PHASE 3C**

**ONE UNIVERSITY PLACE PUBLIC IMPROVEMENTS**

UNIVERSITY HEIGHTS JOHNSON COUNTY STATE OF IOWA

MMS CONSULTANTS, INC.

Date: 7-27-2015

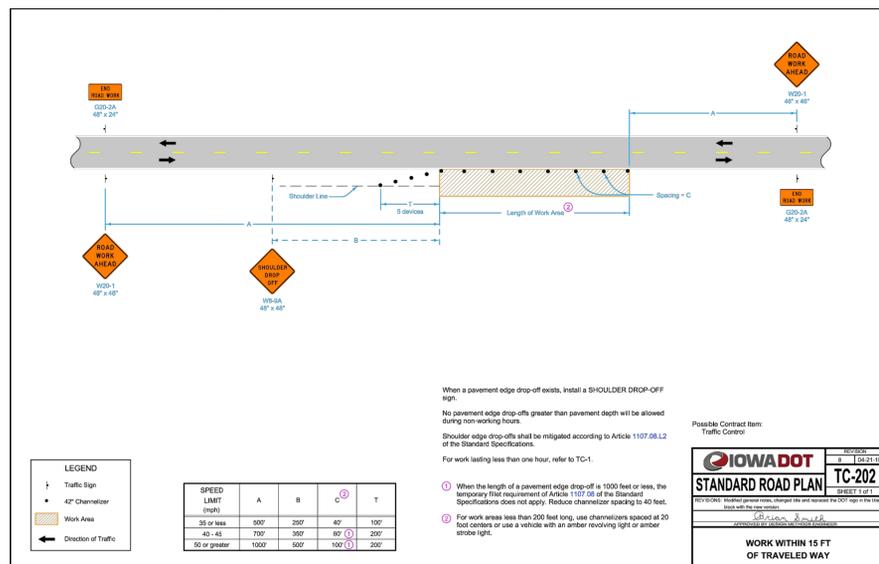
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Checked by: RLA Sheet No:

Project No: IOWA CITY 17

5136012 of 26



**GENERAL TRAFFIC CONTROL NOTES:**

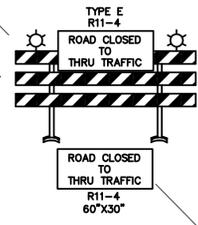
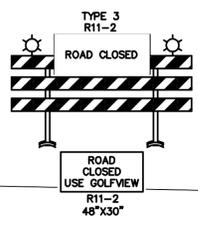
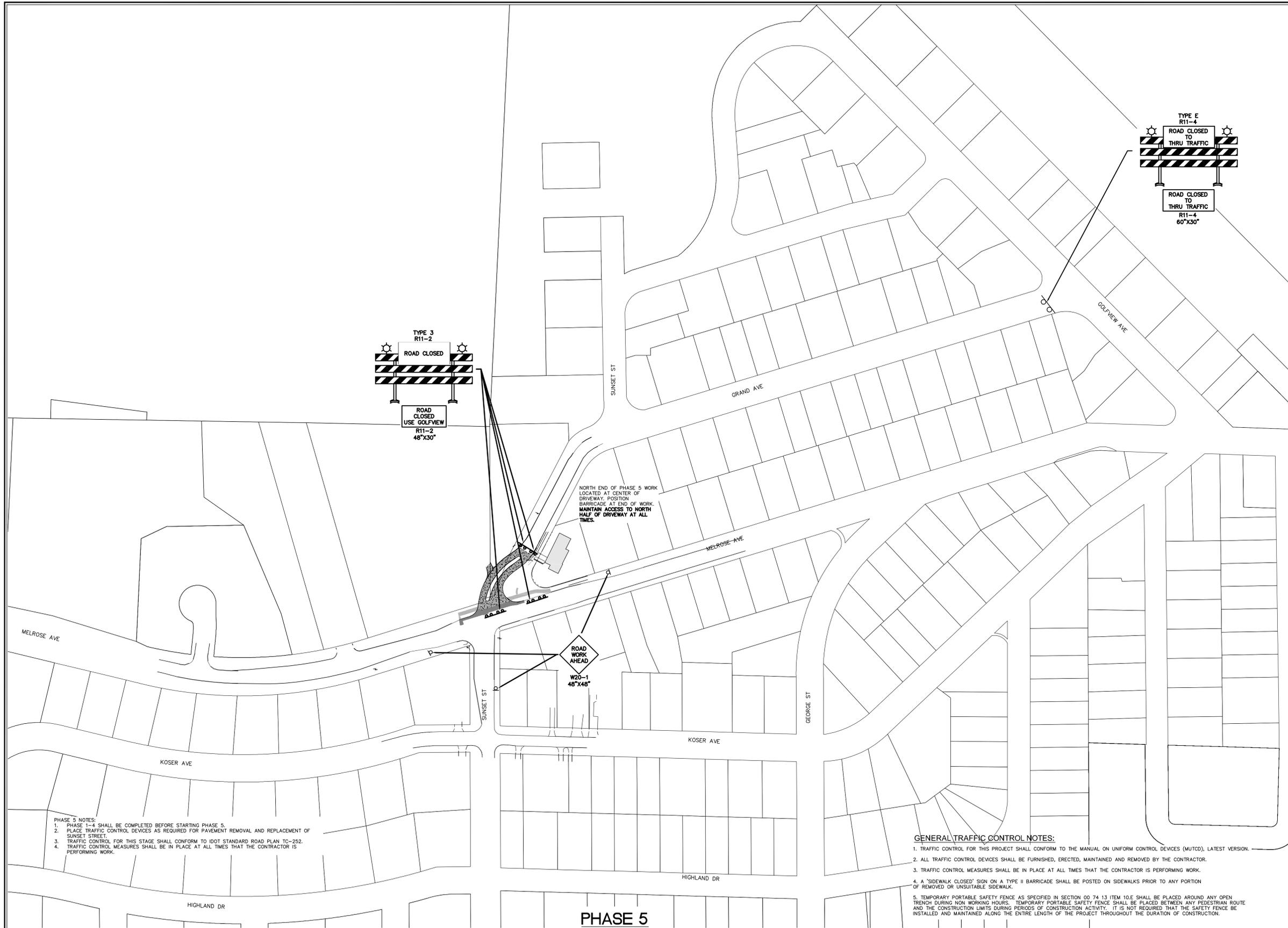
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- A 'SIDEWALK CLOSED' SIGN ON A TYPE II BARRICADE SHALL BE POSTED ON SIDEWALKS PRIOR TO ANY PORTION OF REMOVED OR UNSUITABLE SIDEWALK.
- TEMPORARY PORTABLE SAFETY FENCE AS SPECIFIED IN SECTION 00 74 13 ITEM 10.E SHALL BE PLACED AROUND ANY OPEN TRENCH 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.





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NORTH END OF PHASE 5 WORK  
 LOCATED AT CENTER OF  
 DRIVEWAY. POSITION  
 BARRICADE AT END OF WORK.  
 MAINTAIN ACCESS TO NORTH  
 HALF OF DRIVEWAY AT ALL  
 TIMES.

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:  
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**PHASE 5**  
 SUNSET STREET PAVEMENT REMOVAL AND REPLACEMENT AND WATERMAIN EXTENSION

**TRAFFIC CONTROL PLAN: PHASE 5**

**ONE UNIVERSITY PLACE PUBLIC IMPROVEMENTS**

UNIVERSITY HEIGHTS  
 JOHNSON COUNTY  
 STATE OF IOWA

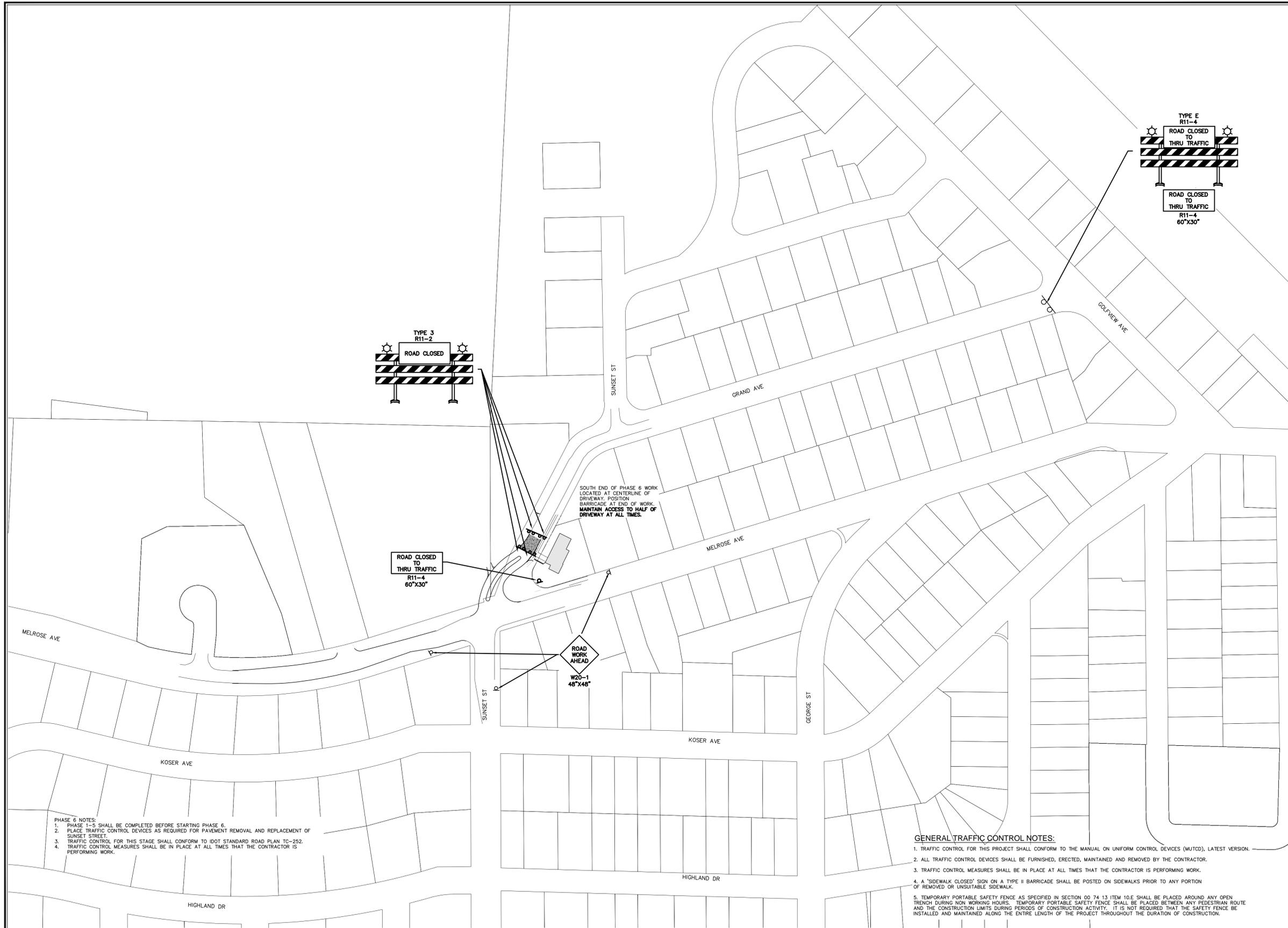
MMS CONSULTANTS, INC.	
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PHASE 6 NOTES:  
1. PHASE 1-5 SHALL BE COMPLETED BEFORE STARTING PHASE 6.  
2. PLACE TRAFFIC CONTROL DEVICES AS REQUIRED FOR PAVEMENT REMOVAL AND REPLACEMENT OF SUNSET STREET.  
3. TRAFFIC CONTROL FOR THIS STAGE SHALL CONFORM 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:  
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**PHASE 6**  
SUNSET STREET PAVEMENT REMOVAL AND REPLACEMENT AND WATERMAIN EXTENSION

**TRAFFIC CONTROL PLAN: PHASE 6**

ONE UNIVERSITY PLACE  
PUBLIC IMPROVEMENTS

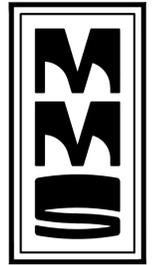
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Checked by:	RLA
Sheet No:	20
Project No:	5136012
IOWA CITY	of 26



**DETOUR ROUTE**

- 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:**
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01/08/15	PER CITY COMMENTS -PVA/MAK
02/09/15	PER CITY COMMENTS -RLA/MAK
02/25/15	PER CITY COMMENTS -RLA/MAK

**TRAFFIC CONTROL PLAN:  
 WESTBOUND  
 DETOUR ROUTE  
 FOR PHASES 1  
 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:

Project No: IOWA CITY **21**

5136012 of 26

**GENERAL NOTES**

1. THE CITY OF IOWA CITY TRAFFIC SIGNALIZATION SPECIFICATIONS APPLY TO THIS PROJECT.
2. THE LOCATION OF ALL UTILITIES ON THE PLANS ARE TAKEN FROM EXISTING PUBLIC RECORDS. THE EXACT LOCATION AND ELEVATION OF ALL PUBLIC UTILITIES MUST BE DETERMINED BY THE CONTRACTOR. IT SHALL BE THE DUTY OF THE CONTRACTOR TO ASCERTAIN WHETHER ANY ADDITIONAL FACILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNDERGROUND UTILITIES AND SHALL NOT BE SEPARATELY COMPENSATED FOR DELAYS OR EXTRA COST.
3. THE MEANS OF THE WORK AND THE SAFETY OF THE CONTRACTOR'S EMPLOYEES ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
4. IOWA CODE 480, UNDERGROUND FACILITIES INFORMATION, REQUIRES VERBAL NOTICE TO IOWA ONE CALL, 1-800-292-8989, NOT LESS THAN 48 HOURS BEFORE EXCAVATING, EXCLUDING WEEKENDS AND LEGAL HOLIDAYS.
5. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES AT CRITICAL LOCATIONS TO VERIFY EXACT HORIZONTAL LOCATION AND ELEVATION.
6. THE LATEST MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES SHALL APPLY TO THIS PROJECT.
7. ALL QUANTITIES SHOWN IN THE PLANS AND SPECIFICATIONS ARE FOR INFORMATIONAL AND ESTIMATING PURPOSES ONLY. THE CONTRACTORS BID FOR THIS PROJECT SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY TO PROVIDE A COMPLETE AND FUNCTIONAL TRAFFIC SIGNAL INSTALLATION.
8. CONTRACTOR SHALL FURNISH A SCHEDULE OF UNIT PRICES FOR ESTIMATED TRAFFIC SIGNAL QUANTITIES.
9. THE CONTRACTOR SHALL INSTALL ONE SIGNAL CABLE FROM EACH SIGNAL HEAD TO THE BASE OF THE POLE. A 5-CONDUCTOR CABLE SHALL BE USED FOR 3-SECTION HEADS AND PEDESTRIAN SIGNAL HEADS, A 7-CONDUCTOR SHALL BE USED FOR 4 OR 5 SECTION SIGNAL HEADS, AND A 2-CONDUCTOR CABLE SHALL BE USED FOR PEDESTRIAN PUSH BUTTONS PER SIGNAL POLE.
10. THE LOCATIONS OF ALL FOOTINGS, HANDHOLES, CONDUIT, AND DETECTOR ZONES ARE TO BE COORDINATED WITH THE ENGINEER AND ARE SUBJECT TO ADJUSTMENT IN THE FIELD BY THE ENGINEER.
11. ALL MAST-ARM MOUNTED VEHICLE SIGNAL HEADS SHALL COME FURNISHED WITH BACK-PLATES.
12. ALL STREETLIGHT LUMINAIRE ARMS SHALL BE LOCATED AT 180 DEGREES TO THE POLE ACCESS HANDHOLE (PARALLEL WITH MAST-ARM) UNLESS OTHERWISE NOTED. LUMINAIRES SHALL HAVE A 30' MOUNTING HEIGHT. STREET LIGHTS SHALL BE LEOTEK LED GREEN KING COBRA.
13. RUNS FOR CAMERA POWER/FOCUS AND COAXIAL CABLE SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE CAMERA TO THE CONTROLLER.
14. THE NORTHING AND EASTING LISTED ON THE SIGNAL PLANS ARE TO THE CENTER OF THE ITEM UNLESS OTHERWISE NOTED.
15. ALL MAST ARM MOUNTED SIGNAL HEADS, TRAFFIC SIGNS, AND STREET NAME SIGNS SHALL BE MOUNTED USING A UNIVERSALLY ADJUSTABLE MOUNTING BRACKET.
16. THE TRAFFIC SIGNAL CABINET SHALL BE MOUNTED ON A 24 INCH HIGH ALUMINUM RISER.
17. THE VIDEO DETECTION UNITS SHALL BE MOUNTED USING A UNIVERSALLY ADJUSTABLE MOUNTING BRACKET. VIDEO DETECTION UNITS MOUNTED ON THE MAST ARM SHALL USE AN EXTENSION POLE WITH ASTRO BRACKET CLAMP KIT. VIDEO DETECTION UNITS MOUNTED ON LUMINAIRES SHALL BE MOUNTED DIRECTLY TO THE LUMINAIRE ARM.
18. ELECTRICAL SERVICE FOR STREET LIGHTING IS 120 VAC, SINGLE PHASE. STREET LIGHTING SHALL BE ON SEPARATE 120 V CIRCUIT FROM THE TRAFFIC SIGNALS. THE STREET LIGHTING WILL BE CONTROLLED BY A CABINET-MOUNTED PE PHOTOCCELL WITH WATER-TIGHT ENTRY. A SERVICE SURGE BREAKER SHALL BE INSTALLED FOR ALL INCOMING POWER.
19. TRAFFIC SIGNAL POLES, MAST ARMS, AND LUMINAIRE EXTENSIONS SHALL HAVE A GALVANIZED FINISH.
20. CONTROLLER SHALL BE EAGLE M52 FIBER READY. FURNISH AND INSTALL PATCH CORDS, DISTRIBUTION PANELS, AND MISCELLANEOUS CABINET EQUIPMENT. CONTROLLER SHALL BE INTERCONNECTED TO THE EXISTING CONTROLLER AT THE NORTHGATE DRIVE AND HIGHWAY 1 INTERSECTION WITH FIBER OPTIC CABLE AS SHOWN ON THE PLANS. THE CITY OF IOWA CITY'S TRAFFIC DEPARTMENT WILL PERFORM FINAL CABINET WIRING ONCE EQUIPMENT AND CABLING ARE INSTALLED.
21. ALL PVC CONDUIT SHALL BE SCHEDULE 80 OR DIRECTIONAL BORED HDPE CONDUIT.
22. THE CONTRACTOR HAS THE OPTION TO TRENCH OR BORE CONDUIT, HOWEVER, PAVEMENT SHALL NOT BE DISTURBED DURING CONSTRUCTION UNLESS NOTED ON THE PLANS. AREAS DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
23. ALL SIGNAL INDICATIONS SHALL BE LED IN ACCORDANCE WITH MOST RECENT ITE SPECIFICATIONS.
24. INSTALL A #6 A.W.G. BARE COPPER GROUND WIRE BETWEEN THE GROUND RODS IN THE SIGNAL FOOTINGS AND THE CONTROLLER CABINET TO FORM A CONTINUOUSLY GROUNDED SYSTEM. THE GROUND WIRE SHALL BE INSTALLED IN ALL CONDUITS.
25. PROVIDE 48 HOURS NOTICE TO CITY OF UNIVERSITY HEIGHTS ENGINEER AND CITY OF IOWA CITY TRAFFIC ENGINEERING DEPARTMENT BEFORE PLACING TRAFFIC SIGNALS INTO OPERATION.
26. FURNISH AND INSTALL BATTERY BACK-UP SYSTEM INCLUDING ALL ACCESSORIES AND CABINET. SYSTEM SHALL PROVIDE 4 HOURS OF FULL COLOR OPERATION AND 8 HOURS OF FLASHING OPERATION.
27. VEHICLE DETECTION SHALL BE ITERIS VANTAGE VECTOR VIDEO / RADAR. TWO ADDITIONAL ITERIS VANTAGE VIDEO CAMERAS WILL BE USED FOR MAST ARM APPLICATIONS AS SHOWN ON THE DRAWINGS.

**TRAFFIC CONTROL NOTES**

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES OUTSIDE THE CONSTRUCTION LIMITS RESULTING FROM NEGLIGENCE.
2. THE CONTRACTOR SHALL COORDINATE TEMPORARY DISRUPTION OF UTILITY SERVICES WITH THE CITY OF IOWA CITY, AND/OR AFFECTED UTILITY COMPANIES WHEN RELOCATING EXISTING FACILITIES OR CONNECTING TO THE EXISTING FACILITIES.
3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE POWER SERVICE LOCATION WITH THE POWER SERVICE PROVIDER PRIOR TO CONDUIT/CIRCUIT INSTALLATION. THE SERVICE SHALL BE UNDER GROUND INSTALLATION.
4. CONTRACTOR TO RECEIVE DELIVERY OF TRAFFIC SIGNAL POLES ASSUMES RESPONSIBILITY FOR DELIVERY, STORAGE, PROTECTION, AND INSTALLATION IN THE FIELD. CONSTRUCTION MATERIALS MAY BE STORED ON SITE AS DIRECTED BY THE ENGINEER.
6. EXISTING TRAFFIC SIGNAL SHALL BE USED FOR TRAFFIC CONTROL THROUGHOUT CONSTRUCTION.
7. CONSTRUCTION OF TRAFFIC SIGNAL EQUIPMENT SHALL BE COORDINATED WITH TRAFFIC CONTROL SEQUENCING. THE FOLLOWING AREAS MAY BE COMPLETED DURING SPECIFIC SEQUENCES:
  - PHASE 3 - SOUTHWEST QUADRANT
  - PHASE 4 - SOUTHEAST QUADRANT
  - PHASE 5 AND/OR PHASE 6 - NORTHWEST AND NORTHEAST QUADRANT
8. ANY TRAFFIC SIGNAL WORK NOT IMPACTING TRAFFIC MAY BE COMPLETED DURING ANY TRAFFIC SEQUENCE. ANY CHANGES BY THE CONTRACTOR TO THE TRAFFIC CONTROL SEQUENCING ARE SUBJECT TO APPROVAL FROM THE CITY OF UNIVERSITY HEIGHTS.
9. TRAFFIC CONTROL SEQUENCING TRAFFIC CONTRACTOR SHALL BAG COMPLETED TRAFFIC SIGNALS UNTIL NOTIFIED BY THE ENGINEER TO ACTIVATE THE INTERSECTION.

**LEGEND**

TRAFFIC SIGNAL	
PLAN MARK	DESCRIPTION
	TRAFFIC SIGNAL W/ BACKPLATE
	PEDESTRIAN SIGNAL
	MAST ARM (LENGTH)
	LUMINAIRE
	HANDHOLE
	CONTROLLER
	SIGNAL BASE
	PEDESTRIAN SIGNAL BASE
	REMOTE PUSHBUTTON BASE
	VIDEO DETECTION
	DETECTION ZONE
	MAST ARM / POST MOUNTED SIGN
	GROUND MOUNTED SIGN
	CONDUIT



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**TRAFFIC SIGNAL NOTES AND LEGEND**

ONE UNIVERSITY PLACE  
 PUBLIC IMPROVEMENTS

UNIVERSITY HEIGHTS  
 JOHNSON COUNTY  
 STATE OF IOWA

MMS CONSULTANTS, INC.

Date: 02.02.16

Designed by: CDB/EAV Field Book No:

Drawn by: EAV Scale:

Checked by: JHC Sheet No:

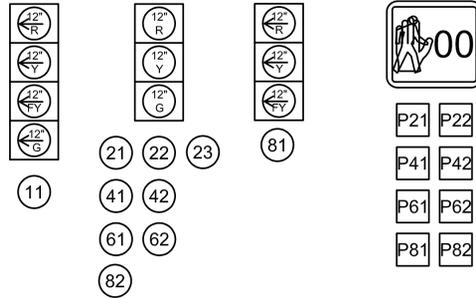
Project No: 5136012

of 26

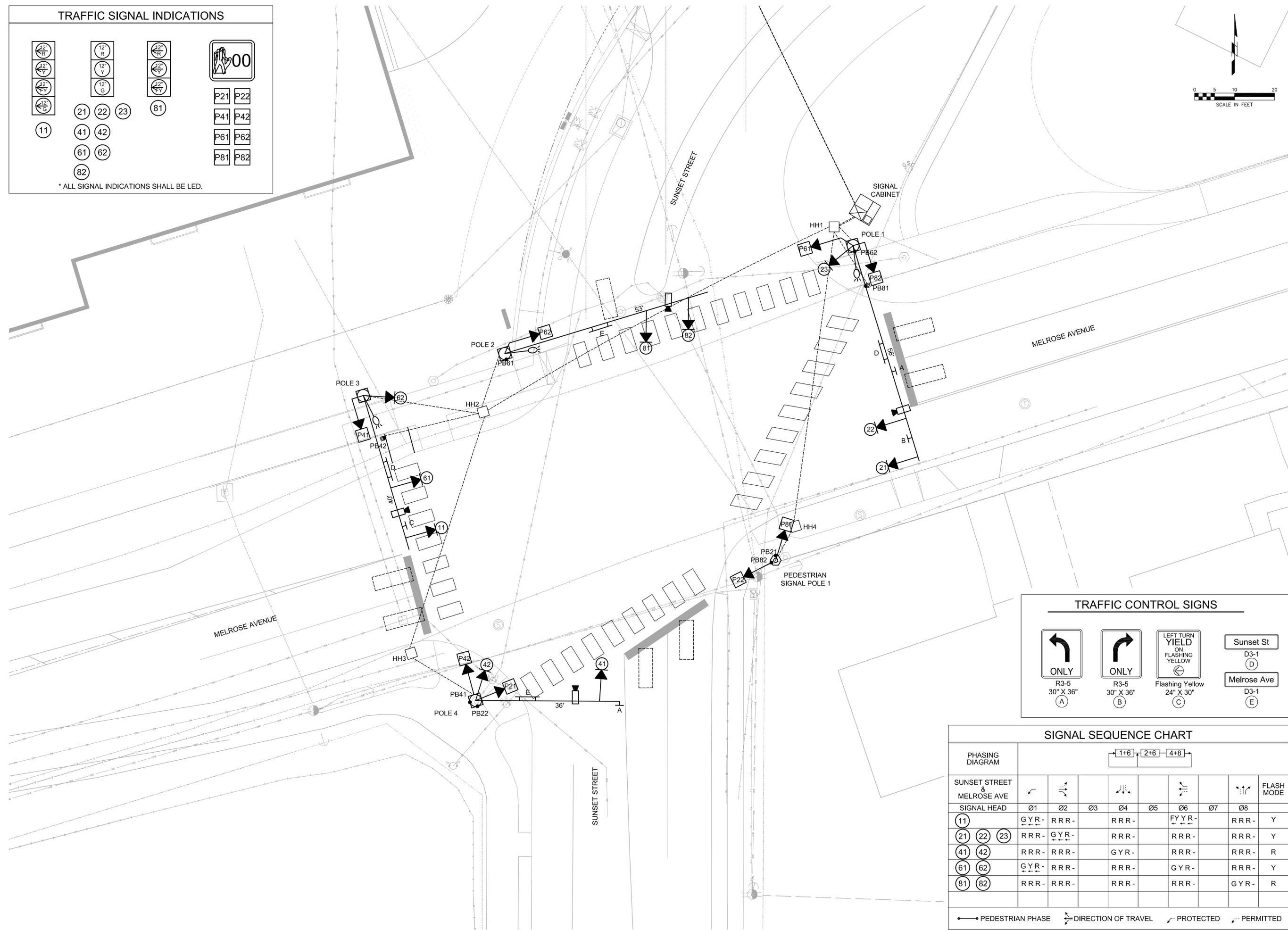
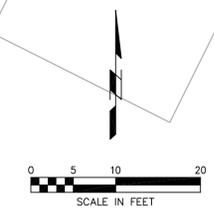
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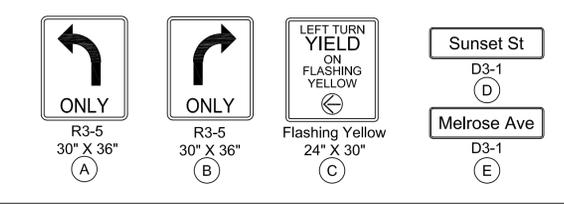
TRAFFIC SIGNAL INDICATIONS



\* ALL SIGNAL INDICATIONS SHALL BE LED.

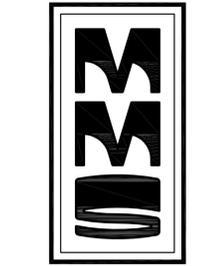


TRAFFIC CONTROL SIGNS



SIGNAL SEQUENCE CHART

PHASING DIAGRAM	SIGNAL HEAD								FLASH MODE
	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	
(11)	GYR	RRR		RRR		FYR		RRR	Y
(21) (22) (23)	RRR	GYR		RRR		RRR		RRR	Y
(41) (42)	RRR	RRR		GYR		RRR		RRR	R
(61) (62)	GYR	RRR		RRR		GYR		RRR	Y
(81) (82)	RRR	RRR		RRR		RRR		GYR	R



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TRAFFIC SIGNAL PLAN

ONE UNIVERSITY PLACE  
PUBLIC IMPROVEMENTS

UNIVERSITY HEIGHTS  
JOHNSON COUNTY  
STATE OF IOWA

MMS CONSULTANTS, INC.  
Date: 02.02.16  
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Project No: IOWA CITY 5136012  
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Sheet No: 24  
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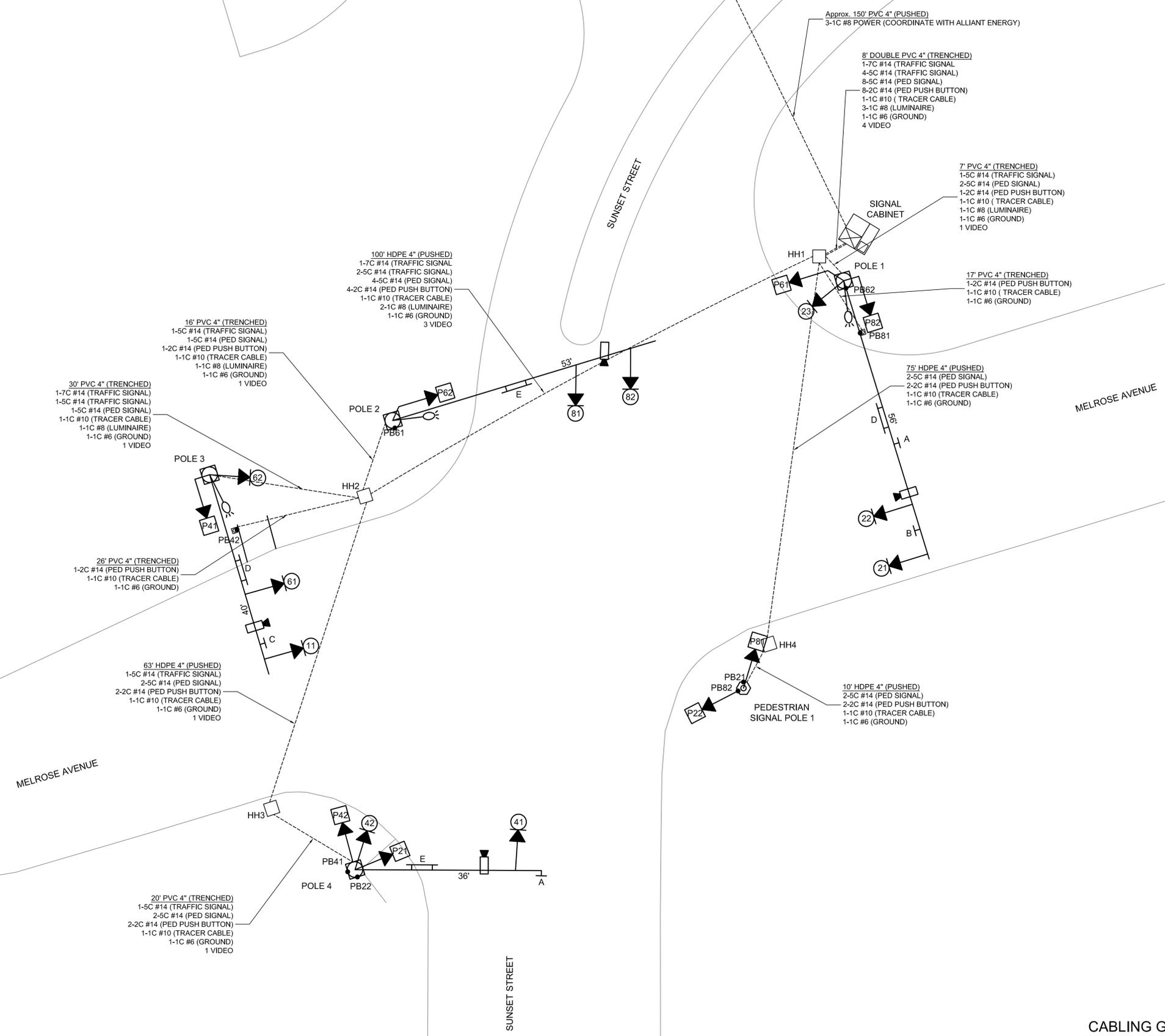
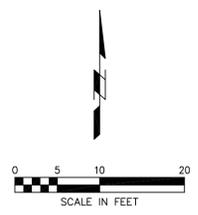
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**CABLING GUIDE**

- NO. 14 7C SIG - 4 & 5 SECTION TRAFFIC SIGNAL HEAD
- NO. 14 5C SIG - 3 SECTION TRAFFIC SIGNAL HEAD
- NO. 14 5C PED - PEDESTRIAN SIGNAL HEAD
- NO. 14 2C PB - PEDESTRIAN PUSHBUTTON
- NO. 10 1C TR - TRACER CABLE
- NO. 8 1C LUM - LUMINAIRE
- NO. 8 1C PWR - POWER CABLE
- NO. 6 1C GR - BONDED GROUND
- 12SM / 12MM F.O. - FIBER OPTIC INTERCONNECT
- VIDEO - VIDEO TRAFFIC DETECTION
- PZT CAM - OBSERVATION CAMERA

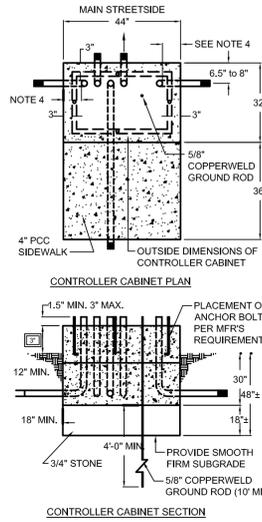
**TRAFFIC SIGNAL WIRING DIAGRAM**

ONE UNIVERSITY PLACE  
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UNIVERSITY HEIGHTS  
 JOHNSON COUNTY  
 STATE OF IOWA

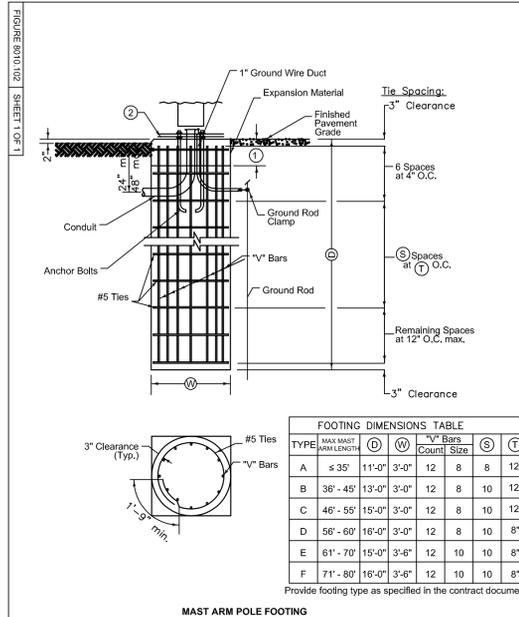
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of	26

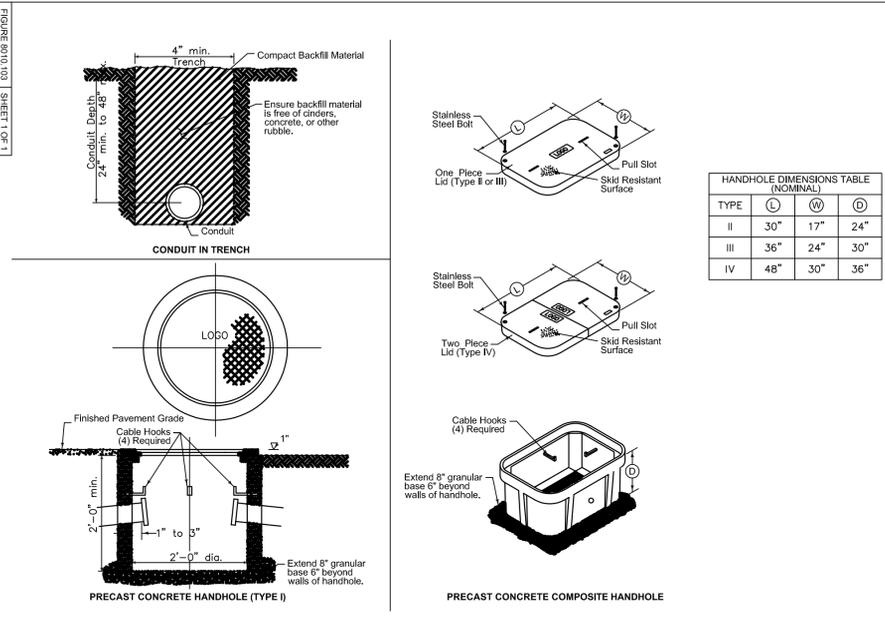


- notes:
- Unused stubs will be threaded and capped with threaded metal pipe caps.
  - All used stubs will have metal grounding bushing with #6 wire.
  - Min. clearance between conduits will be 2".
  - Min. clearance from sides will be 10".
  - Unused stubs will extend out beyond the base not less than 18".
  - All stubs extending up to the surface of the base shall not be less than 1.5" and not be more than 3" above the surface of the base.
  - Pipes and caps shall be in place with an approved tie bar before the base is poured.
  - All stubs extending above and below the base shall have the pipes capped before pouring the base, except where the pipe stub is to be used, those stubs used shall be connected to the conduit network and capped on the ends extending up to the surface of the base before the base is poured.
  - Exposed concrete surfaces shall be cured using white-pigmented curing compound or plastic film meeting the requirements of section 4105 and 4106 of the standard specifications for highway and bridge construction.
  - Conduit connected to the conduit system shall be connected by a threaded coupling such as that supplied with conduit or a 3 piece union connector or an approved equivalent, no set screw type connector will be allowed.
  - Provide (2) 2" conduit stubs for future use.

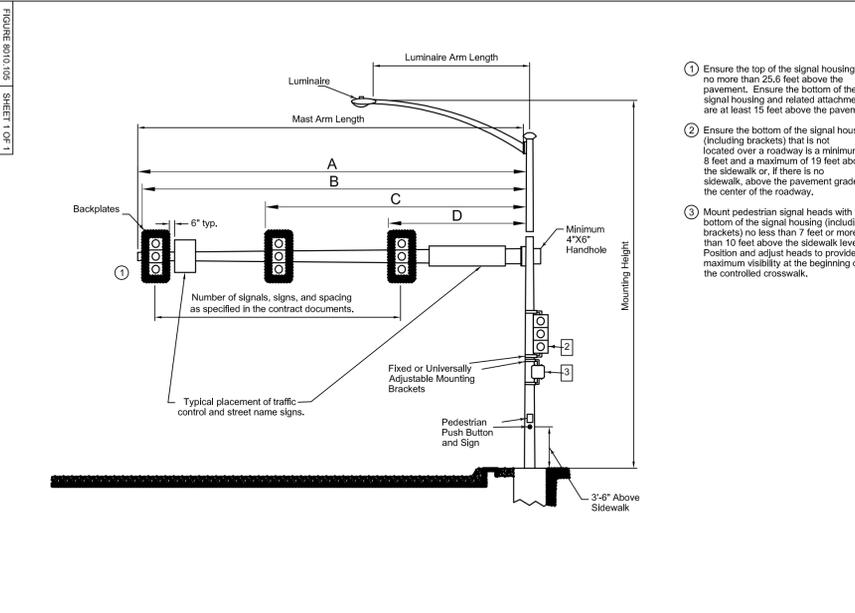
1 CONTROLLER CABINET BASE  
NO SCALE



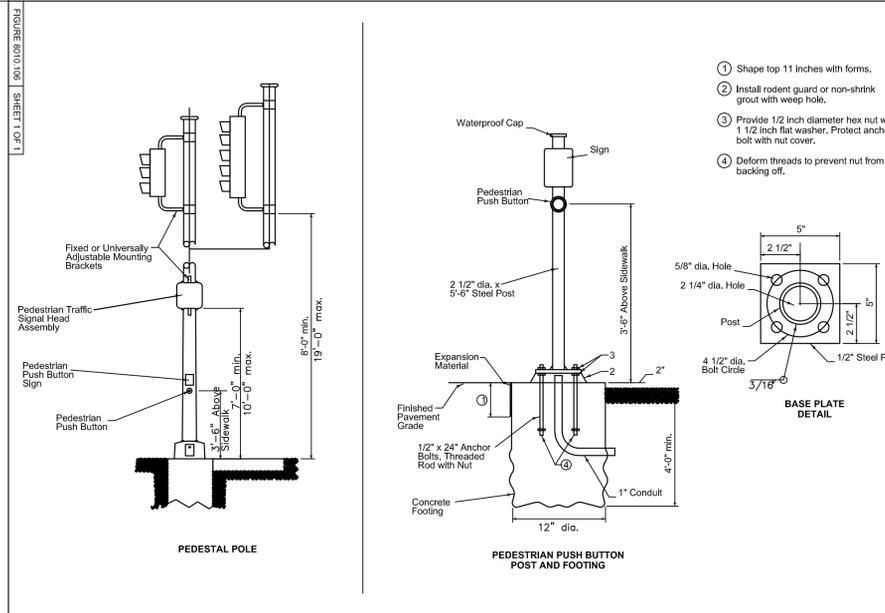
2 POLE FOOTING DETAILS  
NO SCALE



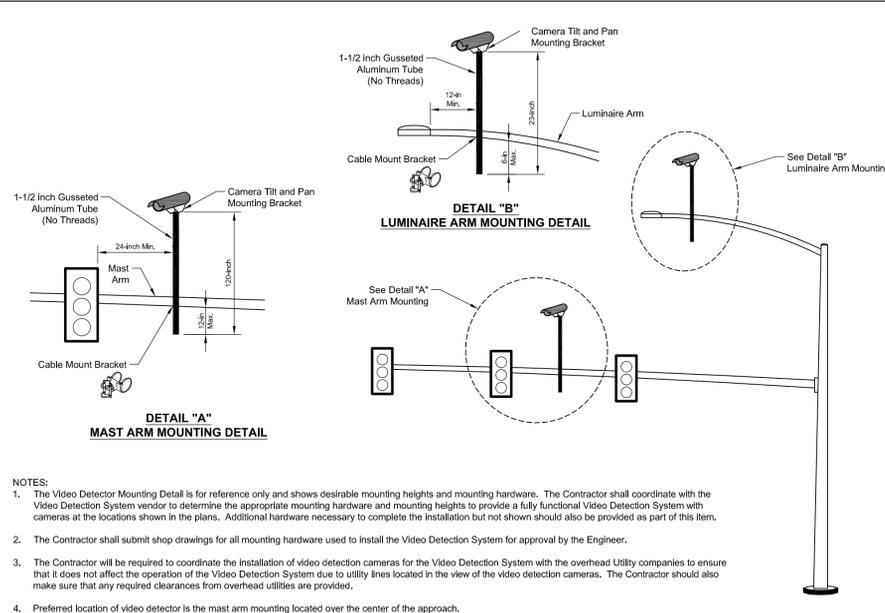
3 CONDUIT AND HANDHOLES  
NO SCALE



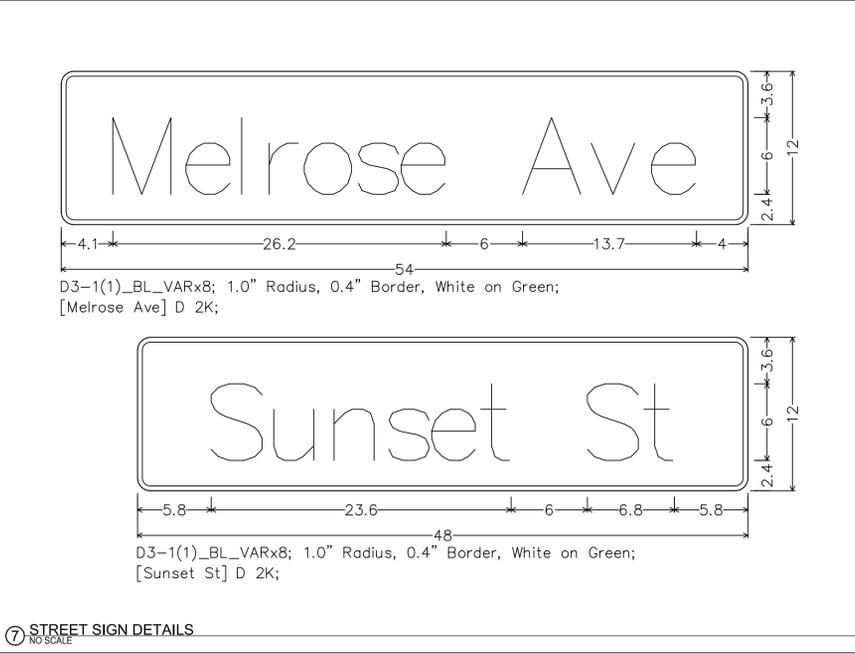
4 MAST ARM POLE DETAILS  
NO SCALE



5 PEDESTAL POLE AND PEDESTRIAN POST DETAILS  
NO SCALE



6 PEDESTAL POLE AND PEDESTRIAN POST DETAILS  
NO SCALE



7 STREET SIGN DETAILS  
NO SCALE



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TRAFFIC SIGNAL DETAILS

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