# Proposed Improvements for

# PEDESTRIAN AND BICYCLE PATHWAY

## OAKTON COMMUNITY COLLEGE
## 1600 GOLF ROAD
## CITY OF DES PLAINES, ILLINOIS

## STANDARD SYMBOLS

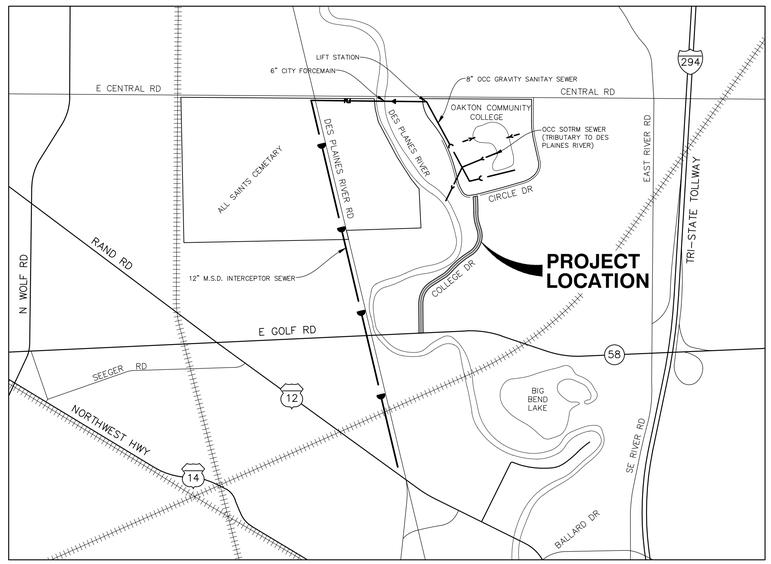
06-01-16

| EXISTING | | PROPOSED |
|---|---|---|
| | STORM SEWER | |
| | SANITARY SEWER | |
| | COMBINED SEWER | |
| FM | FORCEMAIN | FM |
| | DRAINTILE | |
| W | WATER MAIN | W |
| E | ELECTRIC | E |
| G | GAS | G |
| T | TELEPHONE | T |
| OH | OVERHEAD WIRES | OH |
| | SANITARY MANHOLE | |
| | STORM MANHOLE | |
| | CATCH BASIN | |
| | STORM INLET | |
| | CLEANOUT | |
| | HAY BALES | |
| | RIP RAP | |
| | VALVE IN VAULT | |
| | VALVE IN BOX | |
| | FIRE HYDRANT | |
| | BUFFALO BOX | |
| | FLARED END SECTION | |
| | STREET LIGHT | |
| | SUMMIT / LOW POINT | S/L |
| 795.20 / 790.25 | RIM ELEVATION / INVERT ELEVATION | 795.25 / 790.20 |
| | DITCH OR SWALE | |
| | DIRECTION OF FLOW | |
| | OVERFLOW RELIEF SWALE | |
| 764 | 1 FOOT CONTOURS | 764 |
| | CURB AND GUTTER | |
| | DEPRESSED CURB AND GUTTER | |
| | REVERSE CURB AND GUTTER | |
| | SIDEWALK | |
| | DETECTABLE WARNINGS | |
| | PROPERTY LINE | |
| | EASEMENT LINE | |
| | SETBACK LINE | |
| | MAIL BOX | |
| | SIGN | |
| | TRAFFIC SIGNAL | |
| | POWER POLE | |
| | GUY WIRE | |
| | GAS VALVE | |
| | HANDHOLE | |
| E | ELECTRICAL EQUIPMENT | |
| T | TELEPHONE EQUIPMENT | |
| | CHAIN-LINK FENCE | |
| 792.80 | SPOT ELEVATION | 792.8 G |
| | BRUSH/TREE LINE | |
| 16" | DECIDUOUS TREE WITH TRUNK DIA. IN INCHES (TBR) | 16" |
| 25' | CONIFEROUS TREE WITH HEIGHT IN FEET (TBR) | 25' |
| S | SILT FENCE | S |
| | RETAINING WALL | |
| | WETLAND | |

## ABBREVIATIONS

06-01-16

| | | | | | |
|---|---|---|---|---|---|
| ADJ | ADJUST | F/L | FLOW LINE | R.O.W. | RIGHT-OF-WAY |
| AGG. | AGGREGATE | FM | FORCE MAIN | RCP | REINFORCED CONCRETE PIPE |
| ARCH | ARCHITECT | G | GROUND | REM | REMOVAL |
| B.A.M. | BITUMINOUS AGGREGATE MIXTURE | G/F | GRADE AT FOUNDATION | REV | REVERSE |
| B-B | BACK TO BACK | GW | GUY WIRE | RR | RAILROAD |
| B/C | BACK OF CURB | HDWL | HEADWALL | RT | RIGHT |
| B/P | BOTTOM OF PIPE | HH | HANDHOLE | SAN | SANITARY |
| B/W | BACK OF WALK | HWL | HIGH WATER LEVEL | SF | SQUARE FOOT |
| B-BOX | BUFFALO BOX | HYD. | HYDRANT | SHLD. | SHOULDER |
| BIT. | BITUMINOUS | INL | INLET | SL | STREET LIGHT |
| BM | BENCHMARK | INV. | INVERT | SMH | SANITARY MANHOLE |
| B.O. | BY OTHERS | IP | IRON PIPE | ST | STORM |
| C.E. | COMMERCIAL ENTRANCE | LT | LEFT | STA. | STATION |
| CB | CATCH BASIN | MAX. | MAXIMUM | STD | STANDARD |
| ℄ | CENTERLINE | MB | MAILBOX | SW | SIDEWALK |
| CMP | CORRUGATED METAL PIPE | M/E | MEET EXISTING | SY | SQUARE YARDS |
| CNTRL | CONTROL | MH | MANHOLE | TBR | TO BE REMOVED |
| C.O. | CLEANOUT | MIN. | MINIMUM | T | TELEPHONE |
| CONC. | CONCRETE | NWL | NORMAL WATER LEVEL | T-A | TYPE A |
| CY | CUBIC YARD | P.E. | PRIVATE ENTRANCE | T/C | TOP OF CURB |
| D | DITCH | PC | POINT OF CURVATURE | T/F | TOP OF FOUNDATION |
| DIA. | DIAMETER | PCC | POINT OF COMPOUND CURVE | T/P | TOP OF PIPE |
| DIP | DUCTILE IRON PIPE | PGL | PROFILE GRADE LINE | T/W | TOP OF WALK |
| DIWM | DUCTILE IRON WATER MAIN | PI | POINT OF INTERSECTION | T/WALL | TOP OF WALL |
| DS | DOWNSPOUT | P.L. | PROPERTY LINE | TEMP | TEMPORARY |
| DT | DRAIN TILE | PP | POWER POLE | TRANS | TRANSFORMER |
| E | ELECTRIC | PROP. | PROPOSED | V.B. | VALVE BOX |
| E-E | EDGE TO EDGE | PT | POINT OF TANGENCY | VCP | VITRIFIED CLAY PIPE |
| ELEV. | ELEVATION | PVC | POLYVINYL CHLORIDE PIPE | V.V. | VALVE VAULT |
| E/P | EDGE OF PAVEMENT | PVC | POINT OF VERTICAL CURVATURE | WL | WATER LEVEL |
| EX. | EXISTING | PVI | POINT OF VERTICAL INTERSECTION | WM | WATER MAIN |
| F.E. | FIELD ENTRANCE | PVT | POINT OF VERTICAL TANGENCY | | |
| F-F | FACE TO FACE | P | PAVEMENT | | |
| F.F. | FINISHED FLOOR | P.U.D.E. | PUBLIC UTILITY & DRAINAGE EASEMENT | | |
| FES | FLARED END SECTION | R | RADIUS | | |




## LOCATION MAP

N.T.S.

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| 4 | TYPICAL SECTIONS |
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| 6 | DEMOLITION PLAN – CENTER |
| 7 | DEMOLITION PLAN – NORTH |
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| 9 | PLAN AND PROFILE – COLLEGE DRIVE STA. 5+00 TO 10+00 |
| 10 | PLAN AND PROFILE – COLLEGE DRIVE STA. 10+00 TO 15+00 |
| 11 | PLAN AND PROFILE – COLLEGE DRIVE STA. 15+00 TO 20+00 |
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OWNER:
OAKTON COMMUNITY COLLEGE
1600 GOLF ROAD
DES PLAINES, IL. 60016
(847) 635-1600

### NOTE:

THE BOUNDARY LINES AND TOPOGRAPHY FOR THIS PROJECT ARE BASED ON A FIELD SURVEY COMPLETED BY MANHARD CONSULTING, LTD. ON APRIL 02, 2020. THE CONTRACTOR SHALL VERIFY THE EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY MANHARD CONSULTING AND THE CLIENT IN WRITING OF ANY DIFFERING CONDITIONS.

### DRAINAGE CERTIFICATION

I, DANIEL MILETIC, HEREBY CERTIFY THAT ADEQUATE STORM WATER STORAGE AND DRAINAGE CAPACITY HAS BEEN PROVIDED FOR THIS DEVELOPMENT, SUCH THAT SURFACE WATER FROM THE DEVELOPMENT WILL NOT BE DIVERTED ONTO AND CAUSE DAMAGE TO ADJACENT PROPERTY FOR STORMS UP TO AND INCLUDING THE ONE HUNDRED (100) YEAR EVENT, AND THAT THE DESIGN PLANS ARE IN COMPLIANCE WITH ALL APPLICABLE STATE, COUNTY, AND VILLAGE ORDINANCES.

### BENCHMARKS:

**REFERENCE BENCHMARK:**
CITY OF DES PLAINES BENCHMARK#65: CHISELED SQUARE ON TOP OF HEADWALL ON THE SOUTH SIDE OF CENTRAL ROAD AND THE WEST SIDE OF DESPLAINES RIVER.

ELEVATION=639.60 DATUM=NAVD88

**SITE BENCHMARK #1:**
CUT BOX IN CONCRETE AT THE SOUTH END OF THE WEST HEADWALL OF A CULVERT ON COLLEGE DRIVE.

ELEVATION= 633.05 DATUM=NAVD88

**SITE BENCHMARK #3:**
CUT CROSS IN SOUTHERLY CURB RETURN OF ENTRANCE TO BASEBALL FIELDS LOCATED APPROXIMATELY 390' NORTHERLY OF THE CENTERLINE OF GOLF ROAD AND APPROXIMATELY 25 FEET WESTERLY OF THE CENTER OF PAVEMENT FOR COLLEGE DRIVE.

ELEVATION= 640.86 DATUM=NAVD88

### UTILITY CONTACTS

| ELECTRIC | TELEPHONE |
|---|---|
| COMED<br>4712 REILAND DRIVE<br>JOLIET, ILLINOIS 60433<br>(630) 576-7094<br>CONTACT: | AT&T<br>65 N. WEBSTER STREET<br>JOLIET, ILLINOIS 60431<br>(770) 750-6181<br>CONTACT: JIM EVERETT |
| **GAS** | |
| NICOR GAS<br>1844 FERRY ROAD<br>NAPERVILLE, IL 60563<br>(630) 388-3830<br>CONTACT: CONSTANCE LANE | |
| **SEWER** | **WATER** |
| CITY OF DES PLAINES PUBLIC WORK AND ENGINEERING<br>1111 JOSEPH J. SCHWAB RD<br>DES PLAINES, IL 60016<br>(847) 391-5464<br>CONTACT: TIMOTHY OAKLEY P.E | CITY OF DES PLAINES PUBLIC WORK AND ENGINEERING<br>1111 JOSEPH J. SCHWAB RD<br>DES PLAINES, IL 60016<br>(847) 391-5464<br>CONTACT: TIMOTHY OAKLEY P.E. |

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| DATE | REVISIONS | DRAWN BY |
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| 02-09-22 | FINAL BID SET | NBA |
| 01-19-22 | REVISED FOR METAL CABLE GAURDRAIL | NBA |
| 11-10-21 | ISSUED FOR BIDS | NBA |

PEDESTRIAN AND BICYCLE PATHWAY
OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS
TITLE SHEET

| | |
|---|---|
| PROJ. MGR.: | DBM |
| PROJ. ASSOC.: | JWS |
| DRAWN BY: | REH |
| DATE: | 05-04-21 |
| SCALE: | N.T.S. |

SHEET 1 OF 30
OCCDPIL10

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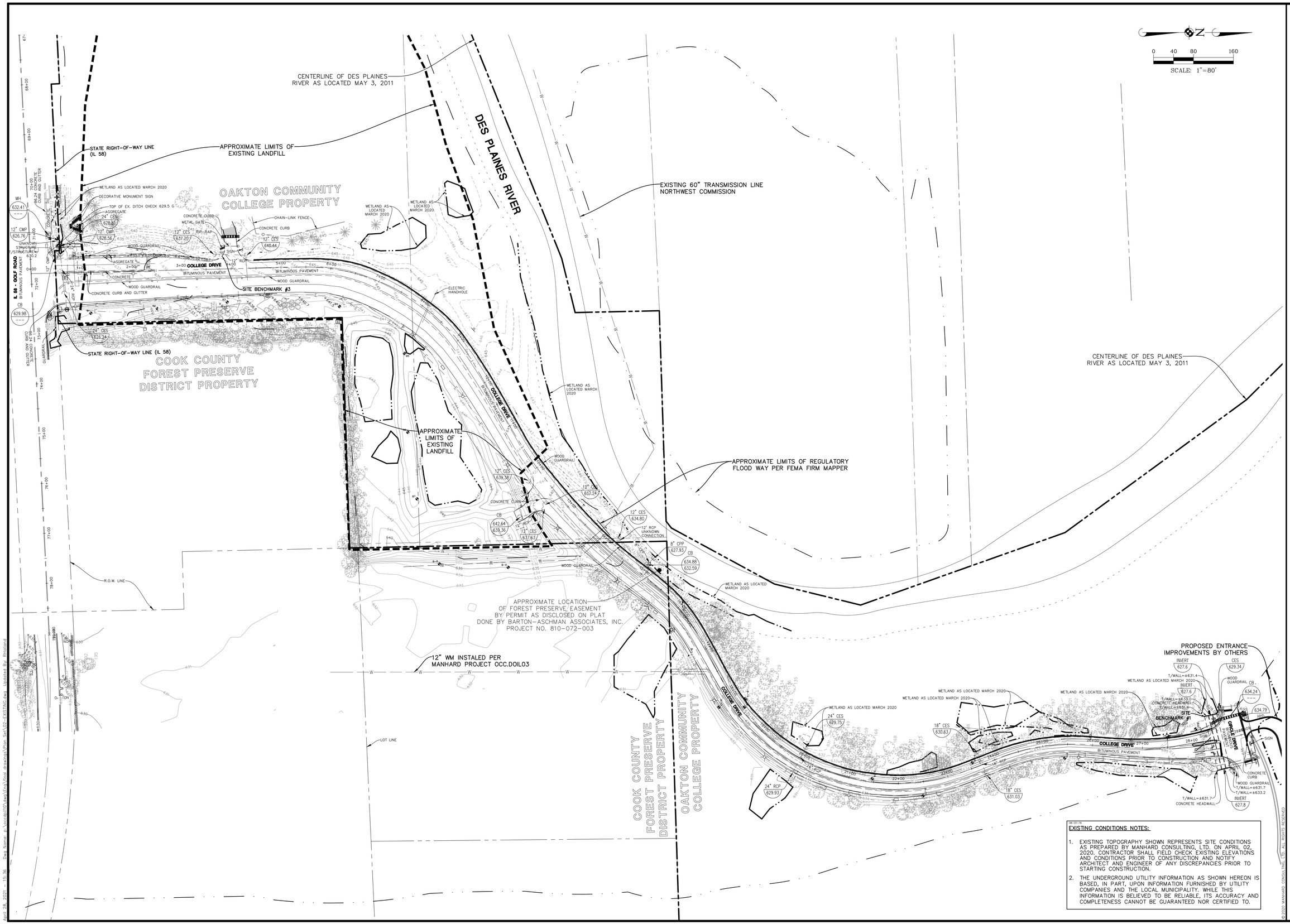


EXISTING CONDITIONS NOTES:

1. EXISTING TOPOGRAPHY SHOWN REPRESENTS SITE CONDITIONS AS PREPARED BY MANHARD CONSULTING, LTD. ON APRIL 02, 2020. CONTRACTOR SHALL FIELD CHECK EXISTING ELEVATIONS AND CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION.
2. THE UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.

| DATE | REVISIONS | DRAWN BY |
|---|---|---|

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PEDESTRIAN AND BICYCLE PATHWAY

OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS

EXISTING CONDITIONS PLAN

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: REH
DATE: 05-04-21
SCALE: 1"=80'

SHEET 2 OF 30

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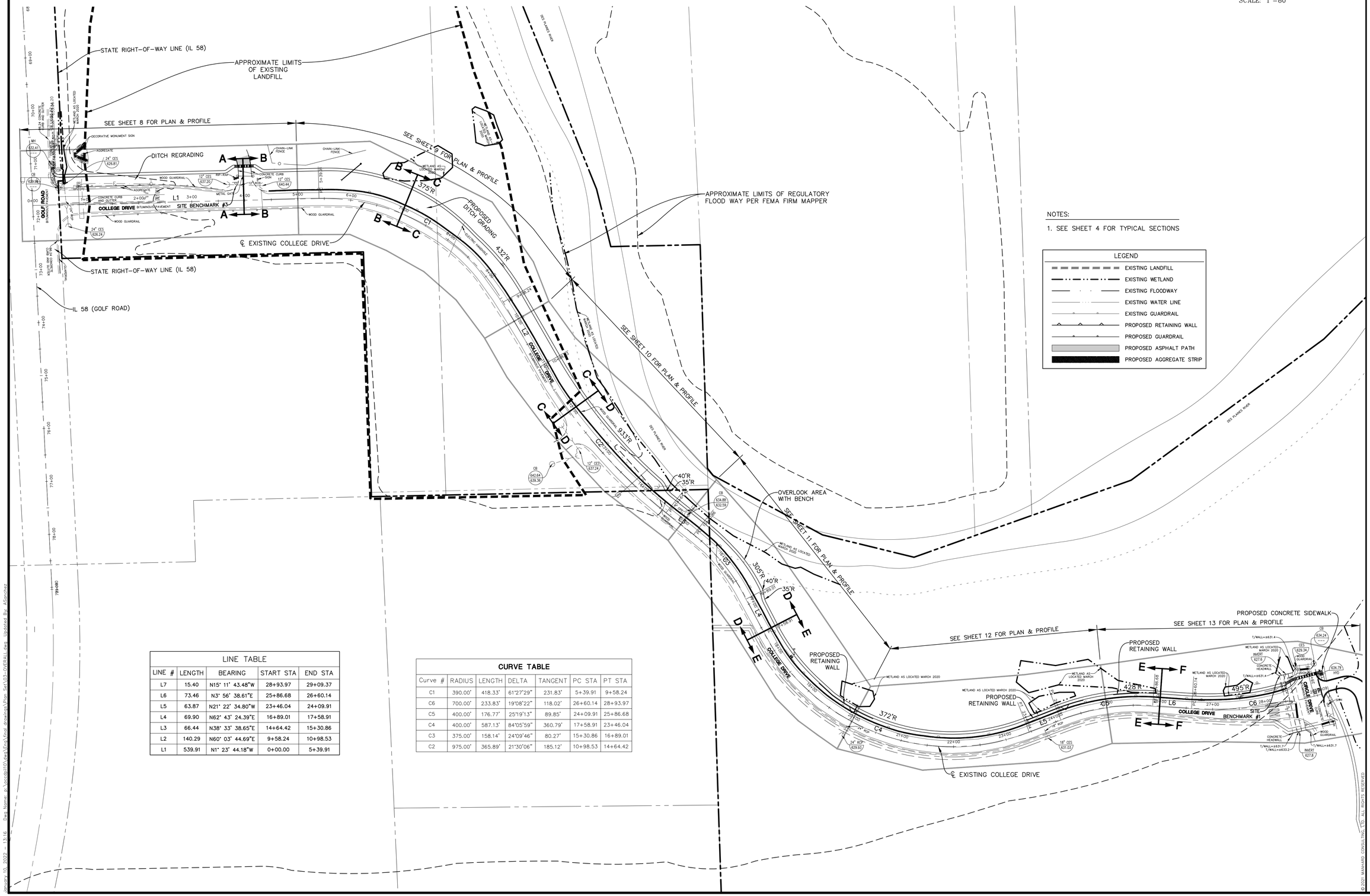


NOTES:

1. SEE SHEET 4 FOR TYPICAL SECTIONS

LEGEND

- EXISTING LANDFILL
- EXISTING WETLAND
- EXISTING FLOODWAY
- EXISTING WATER LINE
- EXISTING GUARDRAIL
- PROPOSED RETAINING WALL
- PROPOSED GUARDRAIL
- PROPOSED ASPHALT PATH
- PROPOSED AGGREGATE STRIP

LINE TABLE

| LINE # | LENGTH | BEARING | START STA | END STA |
|---|---|---|---|---|
| L7 | 15.40 | N15° 11' 43.48"W | 28+93.97 | 29+09.37 |
| L6 | 73.46 | N3° 56' 38.61"E | 25+86.68 | 26+60.14 |
| L5 | 63.87 | N21° 22' 34.80"W | 23+46.04 | 24+09.91 |
| L4 | 69.90 | N62° 43' 24.39"E | 16+89.01 | 17+58.91 |
| L3 | 66.44 | N38° 33' 38.65"E | 14+64.42 | 15+30.86 |
| L2 | 140.29 | N60° 03' 44.69"E | 9+58.24 | 10+98.53 |
| L1 | 539.91 | N1° 23' 44.18"W | 0+00.00 | 5+39.91 |

CURVE TABLE

| Curve # | RADIUS | LENGTH | DELTA | TANGENT | PC STA | PT STA |
|---|---|---|---|---|---|---|
| C1 | 390.00' | 418.33' | 61°27'29" | 231.83' | 5+39.91 | 9+58.24 |
| C6 | 700.00' | 233.83' | 19°08'22" | 118.02' | 26+60.14 | 28+93.97 |
| C5 | 400.00' | 176.77' | 25°19'13" | 89.85' | 24+09.91 | 25+86.68 |
| C4 | 400.00' | 587.13' | 84°05'59" | 360.79' | 17+58.91 | 23+46.04 |
| C3 | 375.00' | 158.14' | 24°09'46" | 80.27' | 15+30.86 | 16+89.01 |
| C2 | 975.00' | 365.89' | 21°30'06" | 185.12' | 10+98.53 | 14+64.42 |

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PEDESTRIAN AND BICYCLE PATHWAY

OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS

OVERALL PLAN AND ALIGNMENT

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: REH
DATE: 05-04-21
SCALE: 1"=80'

SHEET 3 OF 30

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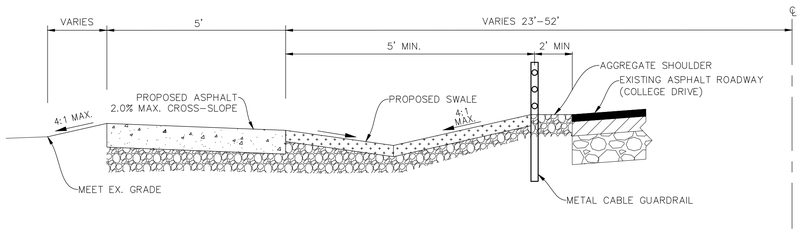


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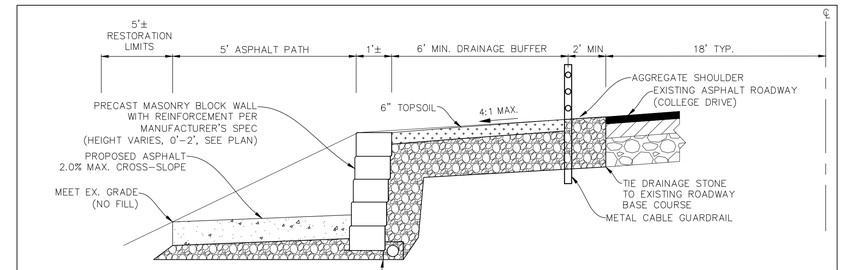
**TYPICAL SECTION B-B**

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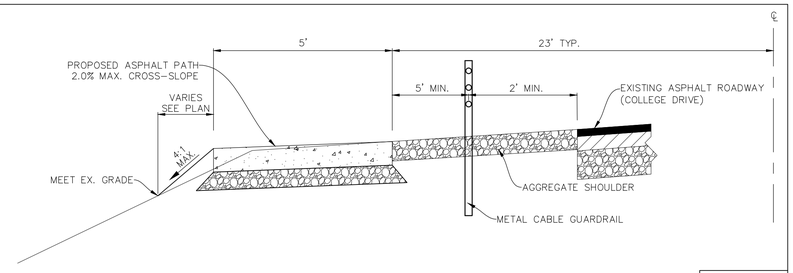
**TYPICAL SECTION E-E**

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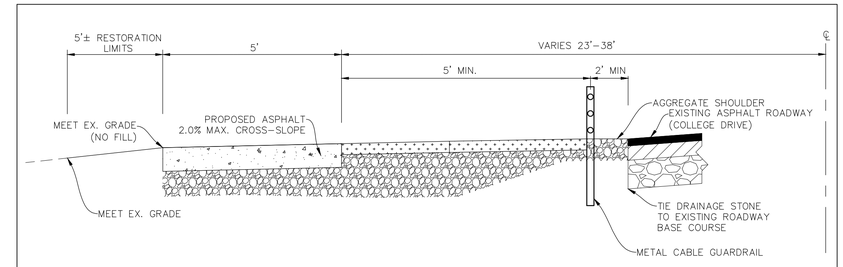
**TYPICAL SECTION C-C**

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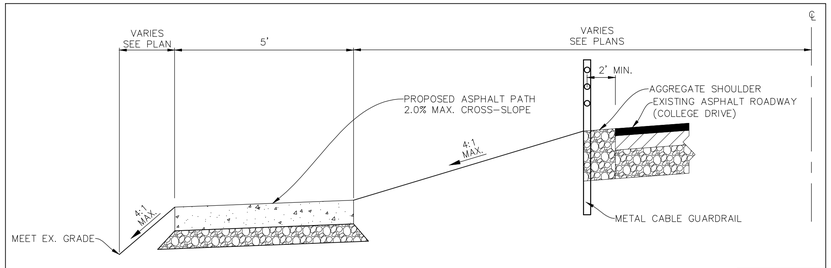


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**TYPICAL SECTION D-D**

| | DATE | REVISIONS | DRAWN BY |
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| 5 | - - | - - | - - |
| 6 | 01-19-22 | REVISED FOR METAL CABLE GAURDRAIL | NBA |
| 7 | 11-10-21 | ISSUED FOR BIDS | NBA |

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# PEDESTRIAN AND BICYCLE PATHWAY
# OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS
# TYPICAL SECTIONS

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: REH
DATE: 05-04-21
SCALE: N.T.S.

SHEET 4 OF 30

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| TAG # | SPECIES | NOTES |
|---|---|---|
| 11 | | |
| 13 | | |
| 14 | | |
| 22 | | |
| 86 | RED OAK | POOR CONDITION |
| 90 | BLACK CHERRY | |
| 96 | SUGAR MAPLE | |
| 97 | BLACK CHERRY | |
| 98 | BASSWOOD | |
| 104 | BLACK CHERRY | |
| 121 | AMERICAN ELM | |
| 123 | AMERICAN ELM | |
| 132 | SUGAR MAPLE | |
| 138 | SUGAR MAPLE | |
| 139 | SUGAR MAPLE | |
| 142 | AMERICAN ELM | |
| 153 | SUGAR MAPLE | |
| 162 | CATALPA | |
| 163 | AMERICAN ELM | |
| 177? | AMERICAN ELM | POSSIBLY PRUNE AND KEEP |
| 181 | AMERICAN ELM | |
| 182 | BITTERNUT HICKORY | |
| 192 | SUGAR MAPLE | |
| 193 | RED OAK | |
| 211 | BASSWOOD | |
| 219 | SUGAR MAPLE | |
| 220 | SUGAR MAPLE | |
| 221 | RED OAK | |
| 222 | SUGAR MAPLE | |
| 223 | SUGAR MAPLE | |
| 224 | SUGAR MAPLE | |
| 242 | RED OAK | |

06-01-16

## DEMOLITION LEGEND

- PAVEMENT AND BASE TO BE REMOVED
- FENCE, RETAINING WALL, RAILROAD TIES, POLES, CURB AND GUTTER, ETC. TO BE REMOVED
- UTILITY STRUCTURE TO BE REMOVED
- UTILITY LINE REMOVAL, FILL OR ABANDONMENT (REFER TO SPECIFICATIONS)
- TREE TO BE REMOVED
- (TBR) TO BE REMOVED
- (TR) TO REMAIN

06-01-16

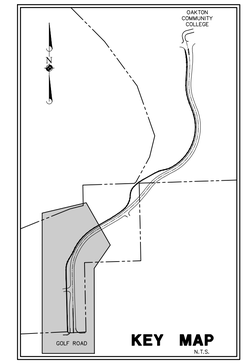
**EXISTING CONDITIONS AND DEMOLITION NOTES:**

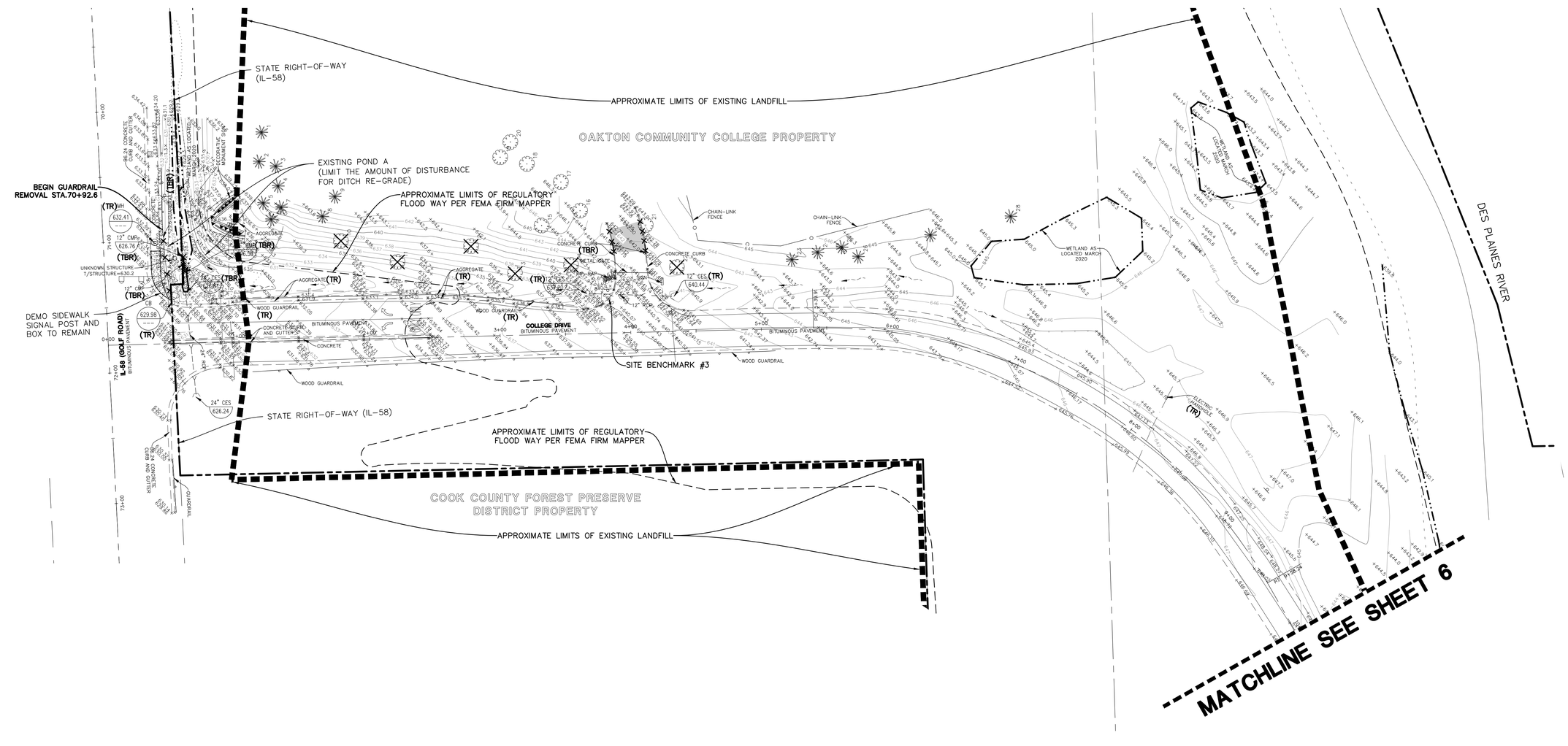
1. EXISTING CONDITIONS AND DEMOLITION PLAN REPRESENT SITE CONDITIONS AS OF APRIL 02, 2020. CONTRACTOR SHALL INSPECT SITE PRIOR TO BIDDING WORK TO VERIFY ACTUAL FIELD CONDITIONS AS PORTIONS OF THE DEMOLITION WORK MAY HAVE SINCE BEEN COMPLETED. CONTRACTOR SHALL BE RESPONSIBLE TO COMPLETE ALL DEMOLITION WORK AS PER PLANS TO PREPARE THE SITE FOR CONSTRUCTION OF PROPOSED IMPROVEMENTS.
2. THE UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS BASED, IN PART, UPON INFORMATION FURNISHED BY UTILITY COMPANIES AND THE LOCAL MUNICIPALITY. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, ITS ACCURACY AND COMPLETENESS CANNOT BE GUARANTEED NOR CERTIFIED TO.
3. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION, REMOVAL AND DISPOSAL (IN A LOCATION APPROVED BY ALL JURISDICTIONAL GOVERNING ENTITIES) OF ALL STRUCTURES, PADS, WALLS, FLUMES, FOUNDATIONS, ROAD, PARKING LOTS, DRIVES, DRAINAGE STRUCTURES, UTILITIES, ETC., SUCH THAT THE IMPROVEMENTS SHOWN ON THESE PLANS CAN BE CONSTRUCTED. ALL DEMOLITION WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS. ALL FACILITIES TO BE REMOVED SHALL BE UNDERCUT TO SUITABLE MATERIAL AND BROUGHT TO GRADE WITH SUITABLE COMPACTED FILL MATERIAL PER THE SPECIFICATIONS.
4. REFER TO SPECIFICATIONS SHEET FOR DEMOLITION NOTES.

N

0 20 40 80

SCALE: 1"=40'

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| 12-23-22 | REVISED FOR BIDS | NBA |
| 11-10-21 | ISSUED FOR BIDS | NBA |


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# PEDESTRIAN AND BICYCLE PATHWAY

# OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS

# DEMOLITION PLAN - SOUTH

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: REH
DATE: 05-04-21
SCALE: 1"=40'

SHEET 5 OF 30

OCCDPIL10

ISSUED FOR BID

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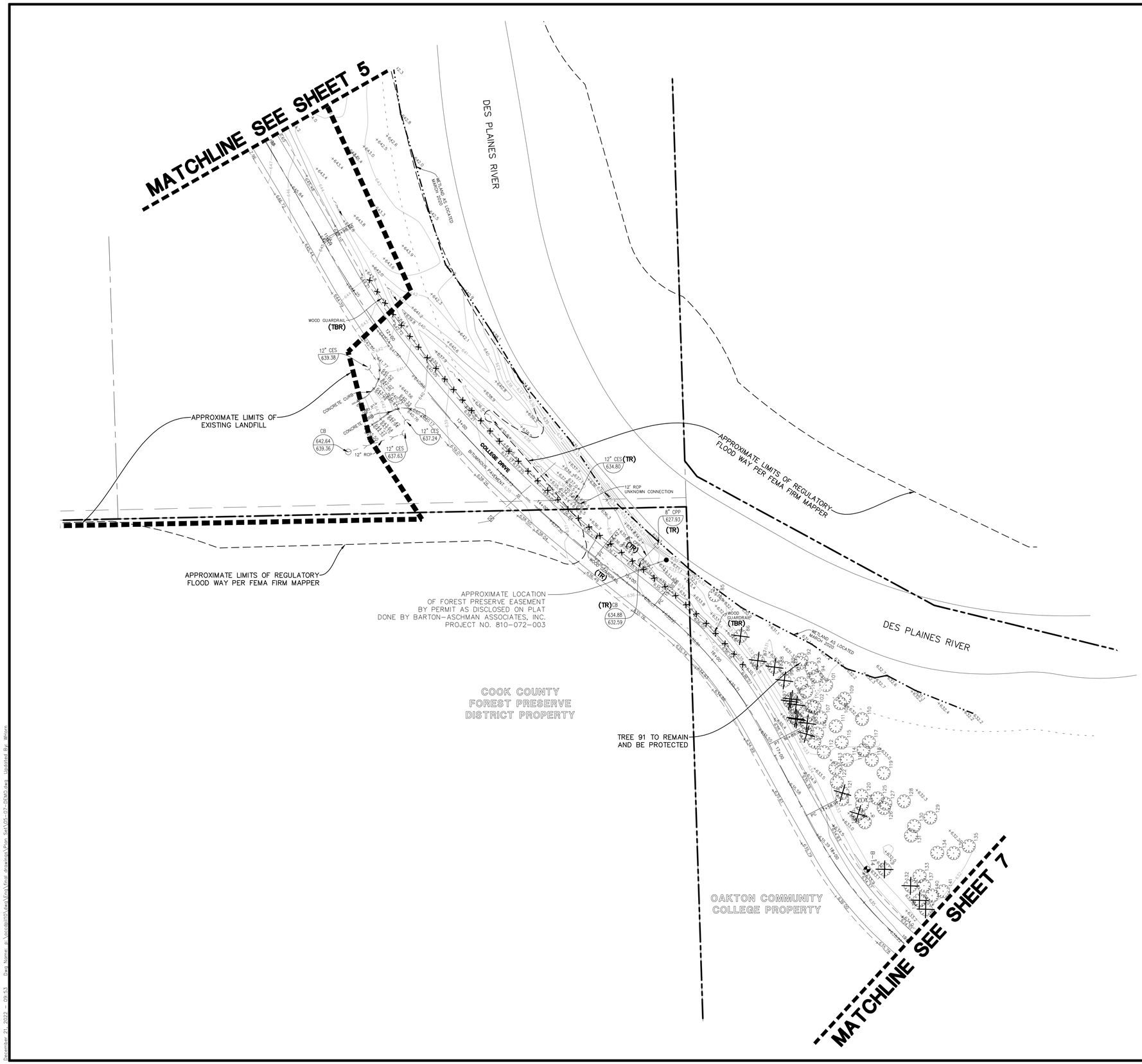
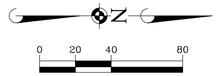
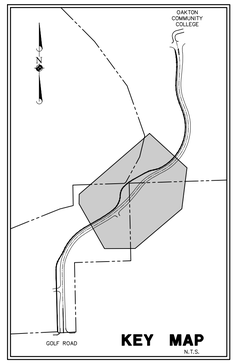
December 21, 2022 - 09:53 Dwg Name: p:\occdpil10\dwg\Civil\final drawings\Plan Set\05-07-DEMO.dwg Updated By: Wilson




| TAG # | SPECIES | NOTES |
|---|---|---|
| 11 | | |
| 13 | | |
| 14 | | |
| 22 | | |
| 86 | RED OAK | POOR CONDITION |
| 90 | BLACK CHERRY | |
| 96 | SUGAR MAPLE | |
| 97 | BLACK CHERRY | |
| 98 | BASSWOOD | |
| 104 | BLACK CHERRY | |
| 121 | AMERICAN ELM | |
| 123 | AMERICAN ELM | |
| 132 | SUGAR MAPLE | |
| 138 | SUGAR MAPLE | |
| 139 | SUGAR MAPLE | |
| 142 | AMERICAN ELM | |
| 153 | SUGAR MAPLE | |
| 162 | CATALPA | |
| 163 | AMERICAN ELM | |
| 177? | AMERICAN ELM | POSSIBLY PRUNE AND KEEP |
| 181 | AMERICAN ELM | |
| 182 | BITTERNUT HICKORY | |
| 192 | SUGAR MAPLE | |
| 193 | RED OAK | |
| 211 | BASSWOOD | |
| 219 | SUGAR MAPLE | |
| 220 | SUGAR MAPLE | |
| 221 | RED OAK | |
| 222 | SUGAR MAPLE | |
| 223 | SUGAR MAPLE | |
| 224 | SUGAR MAPLE | |
| 242 | RED OAK | |

SK-01-16

DEMOLITION LEGEND

- PAVEMENT AND BASE TO BE REMOVED
- FENCE, RETAINING WALL, RAILROAD TIES, POLES, CURB AND GUTTER, ETC. TO BE REMOVED
- UTILITY STRUCTURE TO BE REMOVED
- UTILITY LINE REMOVAL, FILL OR ABANDONMENT (REFER TO SPECIFICATIONS)
- TREE TO BE REMOVED
- (TBR) TO BE REMOVED
- (TR) TO REMAIN

SK-01-16

EXISTING CONDITIONS AND DEMOLITION NOTES:

1. EXISTING CONDITIONS AND DEMOLITION PLAN REPRESENT SITE CONDITIONS AS OF APRIL 02, 2020. CONTRACTOR SHALL INSPECT SITE PRIOR TO BIDDING WORK TO VERIFY ACTUAL FIELD CONDITIONS AS PORTIONS OF THE DEMOLITION WORK MAY HAVE SINCE BEEN COMPLETED. CONTRACTOR SHALL BE RESPONSIBLE TO COMPLETE ALL DEMOLITION WORK AS PER PLANS TO PREPARE THE SITE FOR CONSTRUCTION OF PROPOSED IMPROVEMENTS.
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4. REFER TO SPECIFICATIONS SHEET FOR DEMOLITION NOTES.

| DATE | REVISIONS | DRAWN BY |
|---|---|---|
| 01-19-22 | REVISED FOR METAL CABLE GAURDRAIL | NBA |
| 11-10-21 | ISSUED FOR BIDS | NBA |

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PEDESTRIAN AND BICYCLE PATHWAY

OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS

DEMOLITION PLAN - CENTER

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: REH
DATE: 05-04-21
SCALE: 1"=40'

SHEET 6 OF 30

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| TAG # | SPECIES | NOTES |
|---|---|---|
| 11 | | |
| 13 | | |
| 14 | | |
| 22 | | |
| 86 | RED OAK | POOR CONDITION |
| 90 | BLACK CHERRY | |
| 96 | SUGAR MAPLE | |
| 97 | BLACK CHERRY | |
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| 193 | RED OAK | |
| 211 | BASSWOOD | |
| 219 | SUGAR MAPLE | |
| 220 | SUGAR MAPLE | |
| 221 | RED OAK | |
| 222 | SUGAR MAPLE | |
| 223 | SUGAR MAPLE | |
| 224 | SUGAR MAPLE | |
| 242 | RED OAK | |

06-01-16

## DEMOLITION LEGEND

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- FENCE, RETAINING WALL, RAILROAD TIES, POLES, CURB AND GUTTER, ETC. TO BE REMOVED
- UTILITY STRUCTURE TO BE REMOVED
- UTILITY LINE REMOVAL, FILL OR ABANDONMENT (REFER TO SPECIFICATIONS)
- TREE TO BE REMOVED
- (TBR) TO BE REMOVED
- (TR) TO REMAIN

06-01-16

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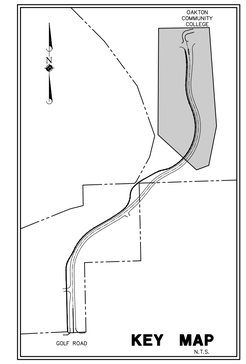
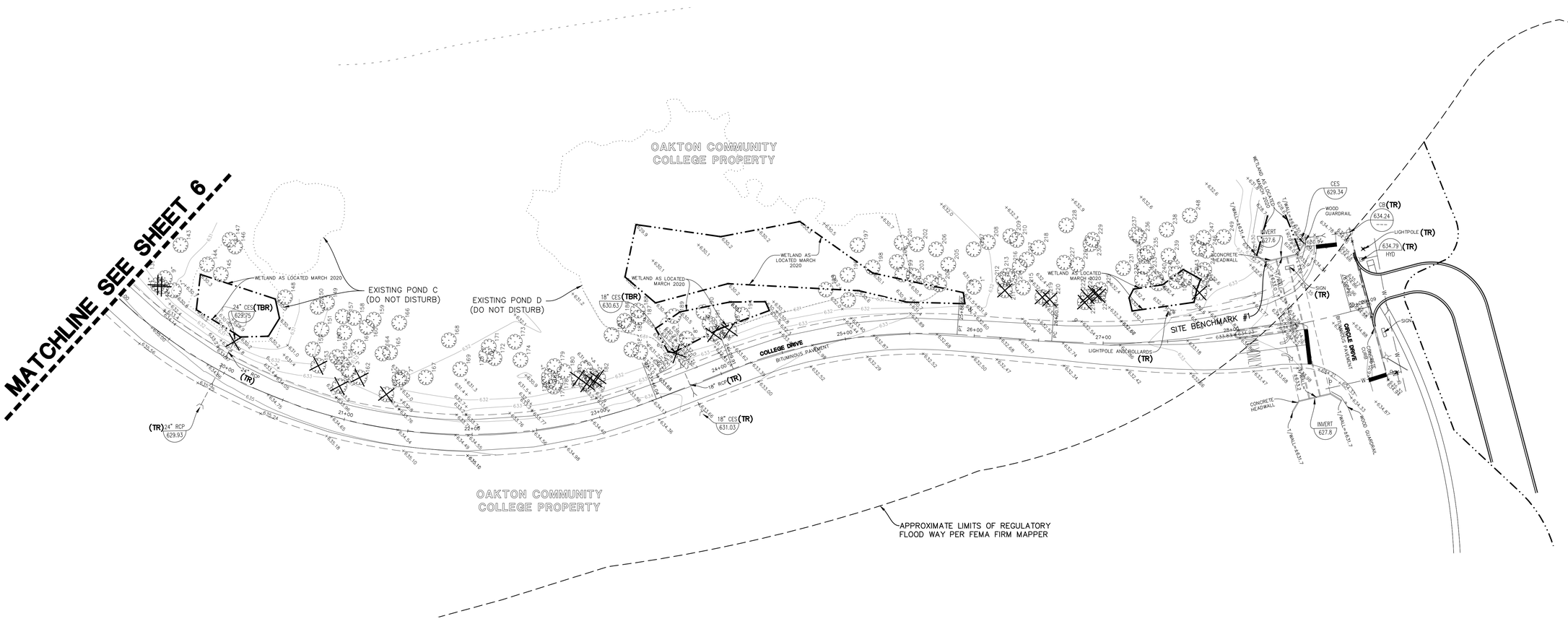
4. REFER TO SPECIFICATIONS SHEET FOR DEMOLITION NOTES.

0 20 40 80

SCALE: 1"=40'




| DATE | REVISIONS | DRAWN BY |
|---|---|---|
| 11-10-21 | ISSUED FOR BIDS | NBA |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# PEDESTRIAN AND BICYCLE PATHWAY
# OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS
# DEMOLITION PLAN - NORTH

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: REH
DATE: 05-04-21
SCALE: 1"=40'

SHEET 7 OF 30

OCCDPIL10

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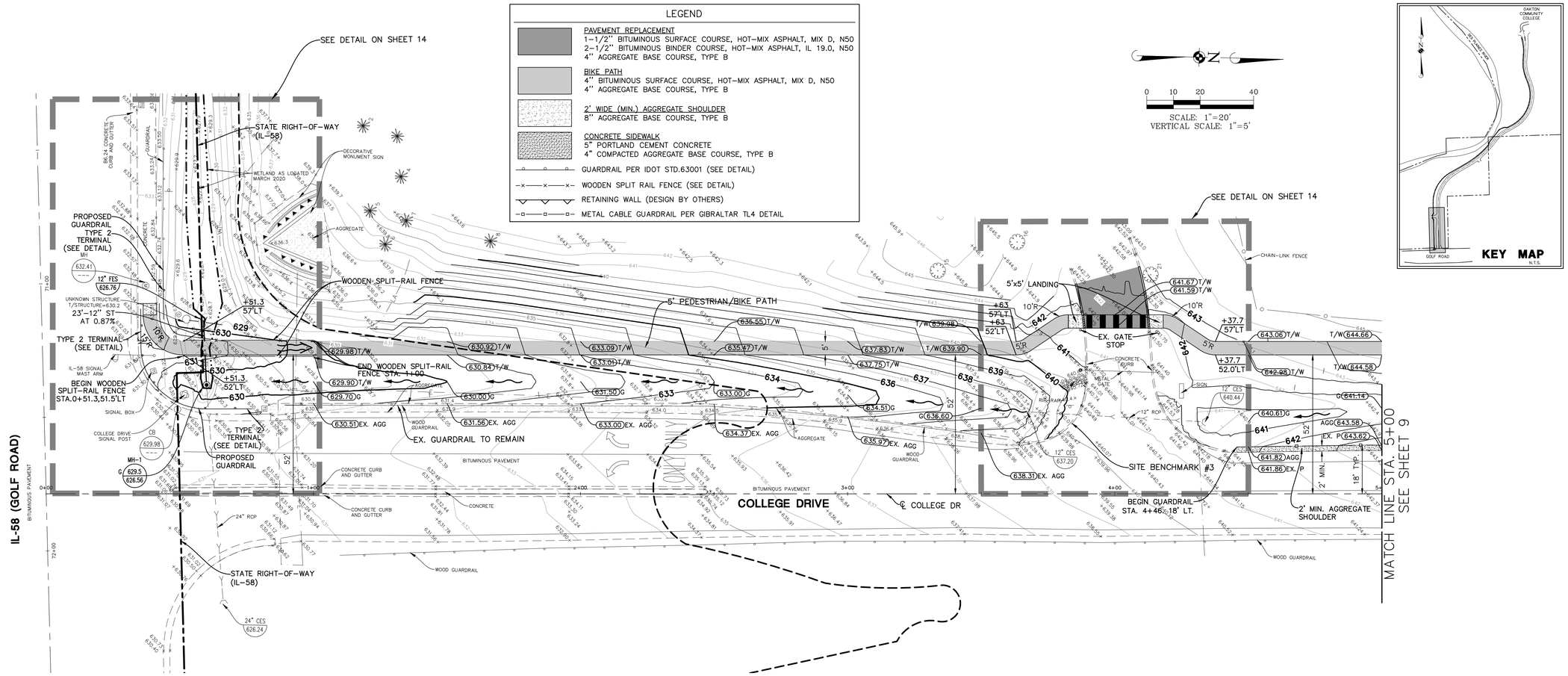
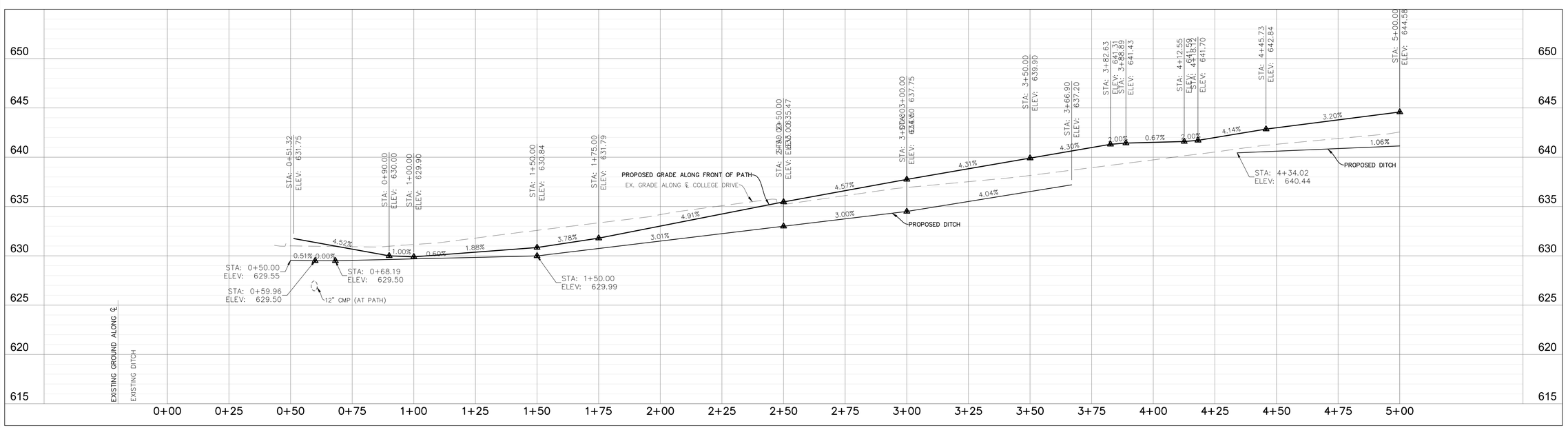
December 21, 2022 - 09:53 Dwg Name: p:\occdpil10\dwg\Civil\final drawings\Plan Set\05-07-PEMP.dwg Updated By: Wilson




# PEDESTRIAN AND BICYCLE PATHWAY ALONG COLLEGE DRIVE




| DATE | REVISIONS | DRAWN BY |
|---|---|---|
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| 01-19-22 | REVISED FOR METAL CABLE GAURDRAIL | NBA |
| 11-10-21 | ISSUED FOR BIDS | NBA |


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PEDESTRIAN AND BICYCLE PATHWAY

OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS

PLAN AND PROFILE - COLLEGE DRIVE STA. 0+00 TO 5+00

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: REH
DATE: 05-04-21
SCALE: H:1"=20'V:1"=5'

SHEET 8 OF 30

OCCDPIL10

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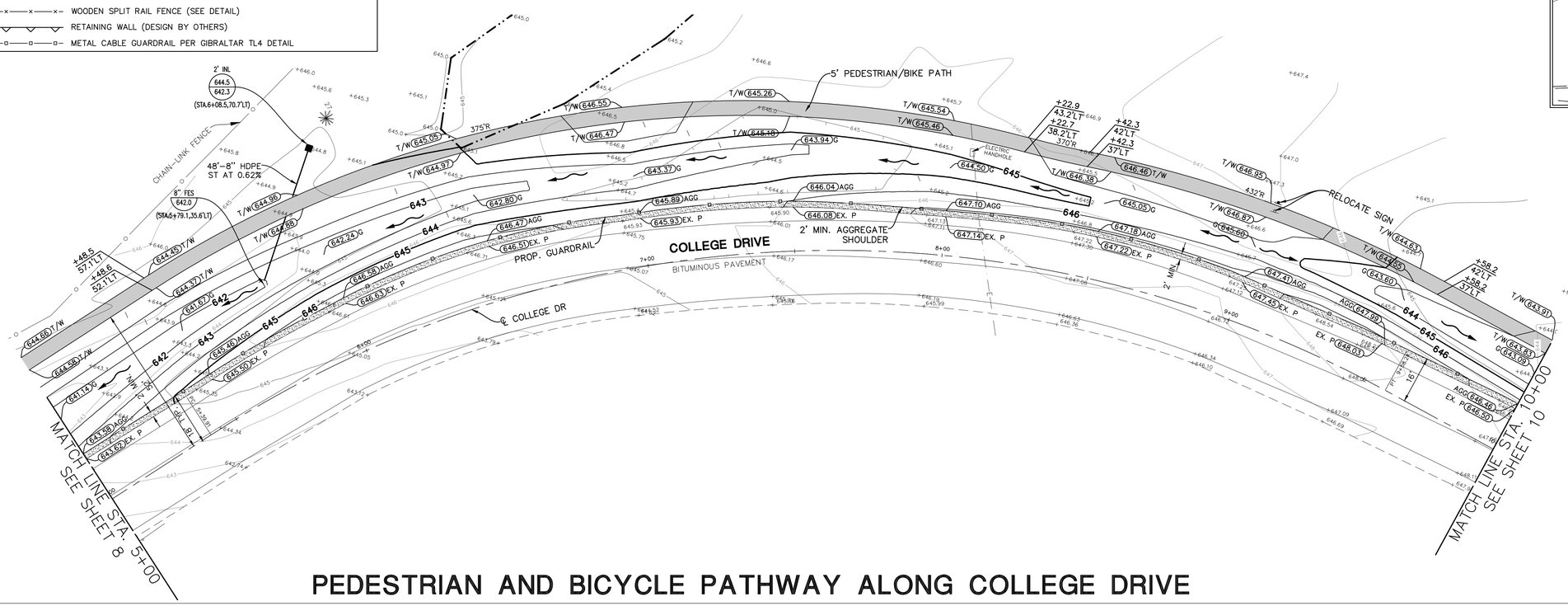
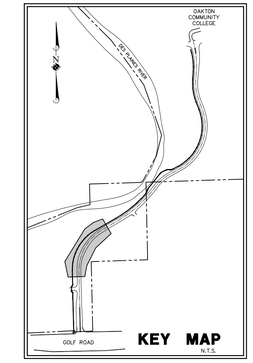
December 21, 2022 - 10:19 Dwg Name: p:\occdpil10\dwg\Dwg\Final drawings\Plan Set\08-15-P&P.dwg Updated By: WKorn

## LEGEND

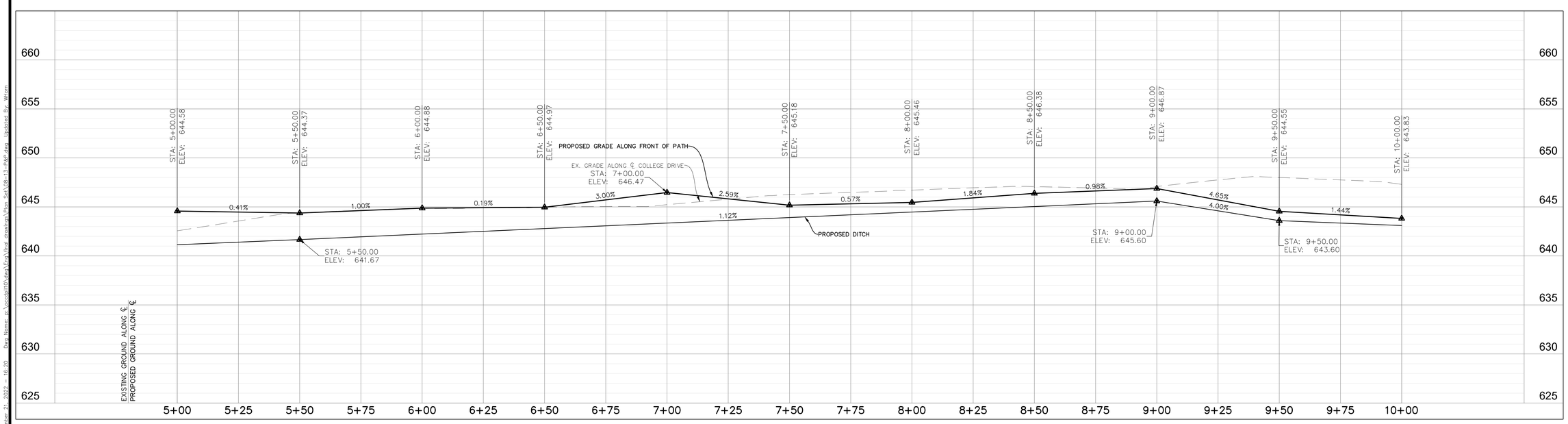
- PAVEMENT REPLACEMENT
  1–1/2" BITUMINOUS SURFACE COURSE, HOT–MIX ASPHALT, MIX D, N50
  2–1/2" BITUMINOUS BINDER COURSE, HOT–MIX ASPHALT, IL 19.0, N50
  4" AGGREGATE BASE COURSE, TYPE B
- BIKE PATH
  4" BITUMINOUS SURFACE COURSE, HOT–MIX ASPHALT, MIX D, N50
  4" AGGREGATE BASE COURSE, TYPE B
- 2' WIDE (MIN.) AGGREGATE SHOULDER
  8" AGGREGATE BASE COURSE, TYPE B
- CONCRETE SIDEWALK
  5" PORTLAND CEMENT CONCRETE
  4" COMPACTED AGGREGATE BASE COURSE, TYPE B
- GUARDRAIL PER IDOT STD.63001 (SEE DETAIL)
- WOODEN SPLIT RAIL FENCE (SEE DETAIL)
- RETAINING WALL (DESIGN BY OTHERS)
- METAL CABLE GUARDRAIL PER GIBRALTAR TL4 DETAIL




SCALE: 1"=20'
VERTICAL SCALE: 1"=5'




# PEDESTRIAN AND BICYCLE PATHWAY ALONG COLLEGE DRIVE




| DATE | REVISIONS | DRAWN BY |
|---|---|---|
| 12–23–22 | REVISED FOR BIDS | NBA |
| 12–21–22 | REVISED PER ISTS | NBA |
| 01–19–22 | REVISED FOR METAL CABLE GAURDRAIL | NBA |
| 11–10–21 | ISSUED FOR BIDS | NBA |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PEDESTRIAN AND BICYCLE PATHWAY

OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS

PLAN AND PROFILE - COLLEGE DRIVE STA. 5+00 TO 10+00

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: REH
DATE: 05–04–21
SCALE: H:1"=20'V:1"=5'

SHEET 9 OF 30

OCCDPIL10

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December 21, 2022 – 16:20 Dwg Name: p:\occdpil10\dwg\Dwg\final drawings\Plan Set\08-13-P&P.dwg Updated By: WKorn

## LEGEND

- PAVEMENT REPLACEMENT
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  2-1/2" BITUMINOUS BINDER COURSE, HOT-MIX ASPHALT, IL 19.0, N50
  4" AGGREGATE BASE COURSE, TYPE B
- BIKE PATH
  4" BITUMINOUS SURFACE COURSE, HOT-MIX ASPHALT, MIX D, N50
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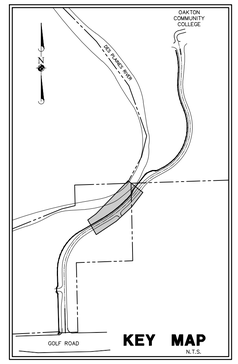
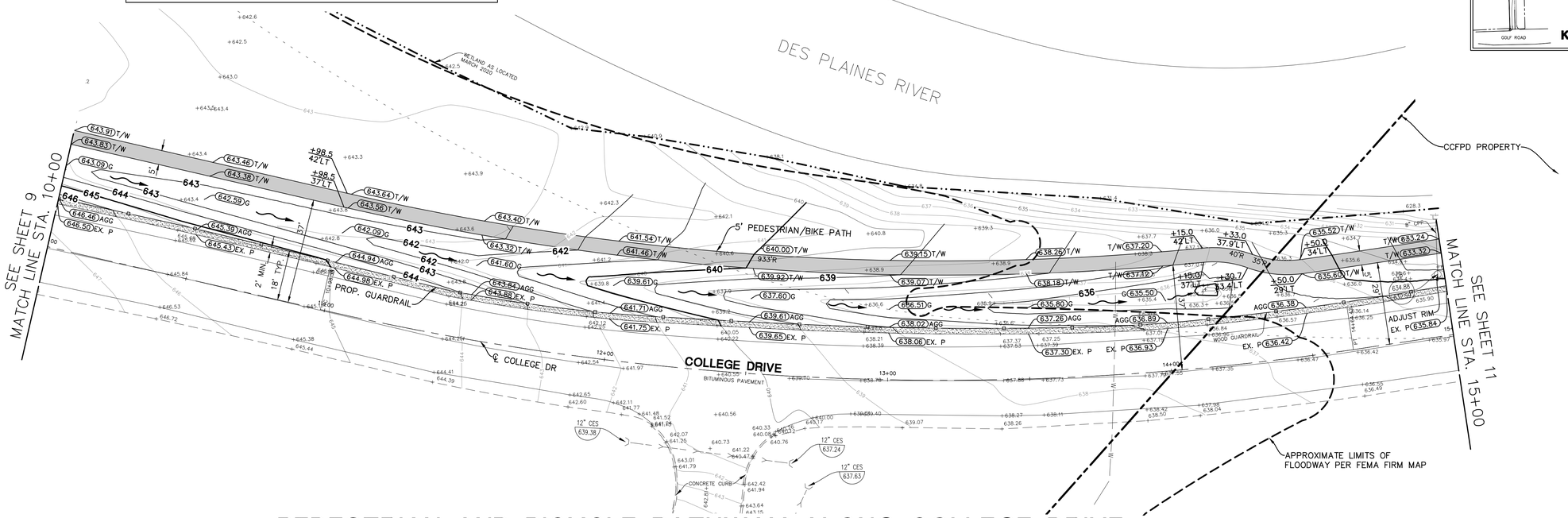
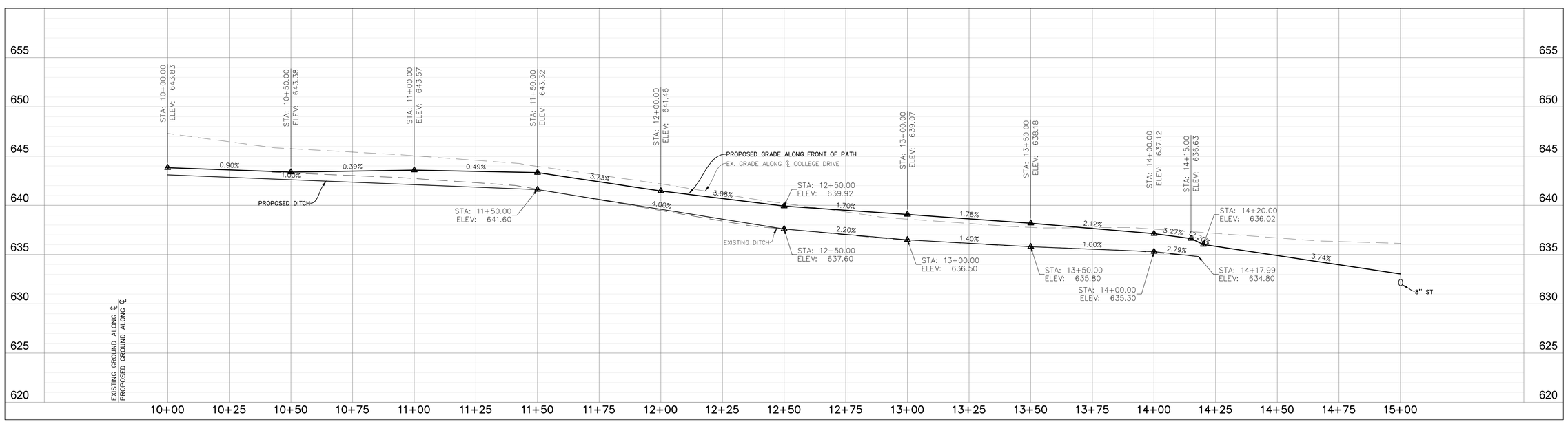
- RETAINING WALL (DESIGN BY OTHERS)
- METAL CABLE GUARDRAIL PER GIBRALTAR TL4 DETAIL

SCALE: 1"=20'
VERTICAL SCALE: 1"=5'




# PEDESTRIAN AND BICYCLE PATHWAY ALONG COLLEGE DRIVE




| DATE | REVISIONS | DRAWN BY |
|---|---|---|
| 12-23-22 | REVISED FOR BIDS | NBA |
| 02-09-22 | REVISED PER IDOT | NBA |
| 01-19-22 | REVISED FOR METAL CABLE GAURDRAIL | NBA |
| 11-10-21 | ISSUED FOR BIDS | NBA |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PEDESTRIAN AND BICYCLE PATHWAY
OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS
PLAN AND PROFILE - COLLEGE DRIVE STA. 10+00 TO 15+00

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: REH
DATE: 05-04-21
SCALE: H:1"=20'V:1"=5'

SHEET 10 OF 30
OCCDPIL10

ISSUED FOR BID

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December 21, 2022 - 10:19 Dwg Name: p:\occdpiltr\dwg\Civil\Final drawings\Plan Set\08-13-P&P.dwg Updated By: Wkorn

## LEGEND

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  2-1/2" BITUMINOUS BINDER COURSE, HOT-MIX ASPHALT, IL 19.0, N50
  4" AGGREGATE BASE COURSE, TYPE B
- BIKE PATH
  4" BITUMINOUS SURFACE COURSE, HOT-MIX ASPHALT, MIX D, N50
  4" AGGREGATE BASE COURSE, TYPE B
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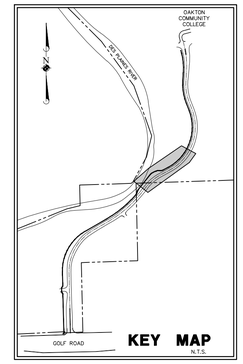
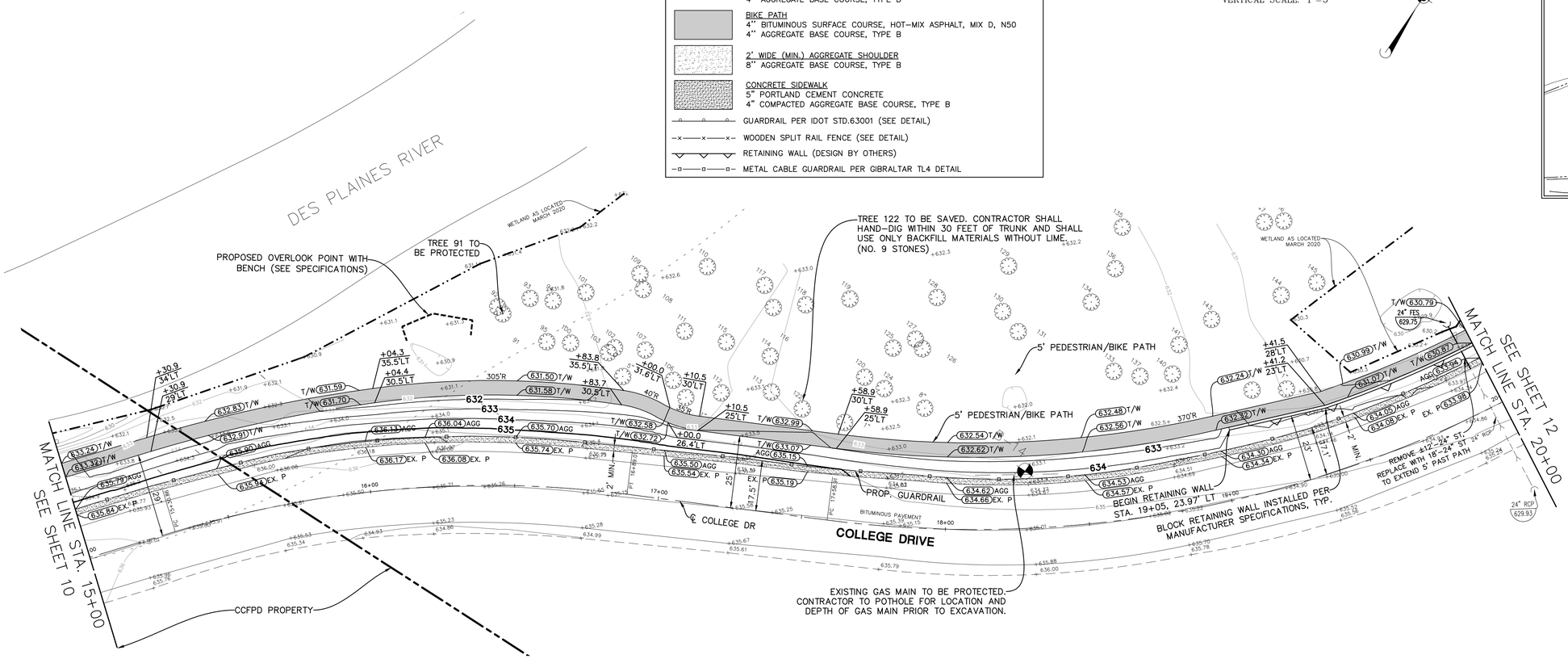
- RETAINING WALL (DESIGN BY OTHERS)
- METAL CABLE GUARDRAIL PER GIBRALTAR TL4 DETAIL

0 10 20 40
SCALE: 1"=20'
VERTICAL SCALE: 1"=5'

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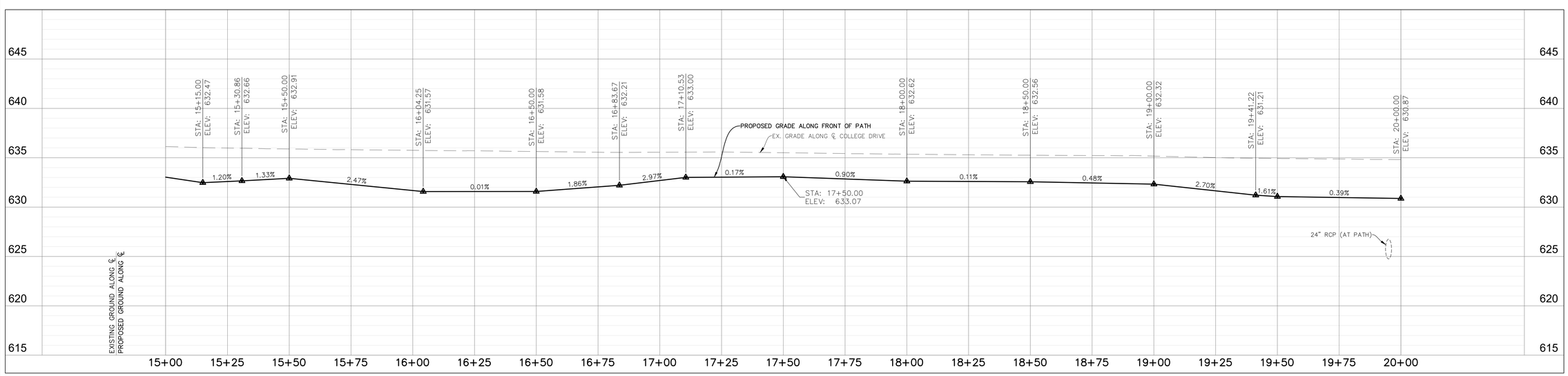


| DATE | REVISIONS | DRAWN BY |
|---|---|---|
| 02-09-22 | FINAL BID SET | NBA |
| 01-19-22 | REVISED FOR METAL CABLE GAURDRAIL | NBA |
| 11-10-20 | ISSUED FOR BIDS | NBA |


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PEDESTRIAN AND BICYCLE PATHWAY

OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS

PLAN AND PROFILE - COLLEGE DRIVE STA. 15+00 TO 20+00

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: REH
DATE: 05-04-21
SCALE: H:1"=20'V:1"=5'

SHEET 11 OF 30

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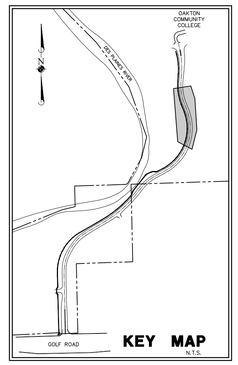
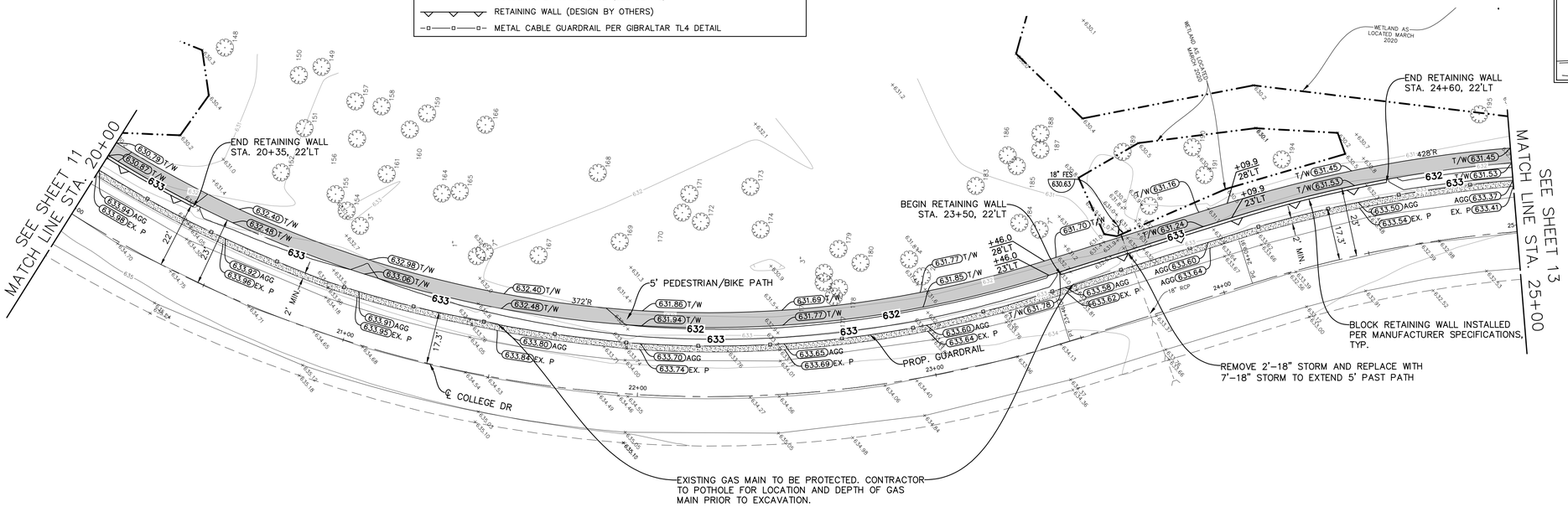
December 21, 2022 - 10:19 Dwg Name: p:\occdpil10\dwg\Eng\Final drawings\Plan Set\CB-13-P&P.dwg Updated By: Wilson

## LEGEND

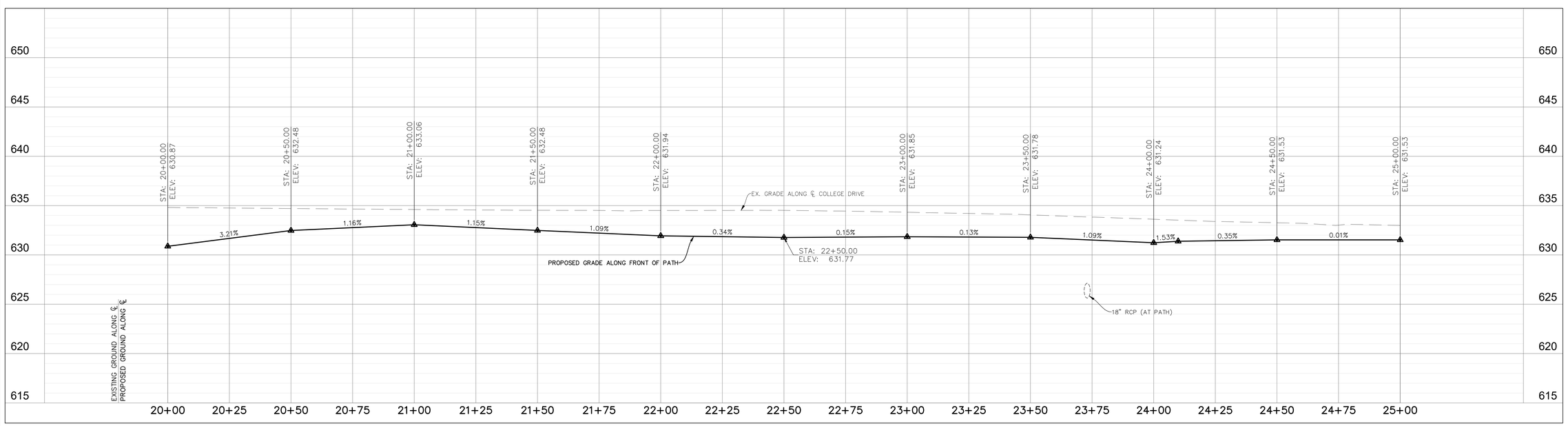
- PAVEMENT REPLACEMENT
  1-1/2" BITUMINOUS SURFACE COURSE, HOT-MIX ASPHALT, MIX D, N50
  2-1/2" BITUMINOUS BINDER COURSE, HOT-MIX ASPHALT, IL 19.0, N50
  4" AGGREGATE BASE COURSE, TYPE B
- BIKE PATH
  4" BITUMINOUS SURFACE COURSE, HOT-MIX ASPHALT, MIX D, N50
  4" AGGREGATE BASE COURSE, TYPE B
- 2' WIDE (MIN.) AGGREGATE SHOULDER
  8" AGGREGATE BASE COURSE, TYPE B
- CONCRETE SIDEWALK
  5" PORTLAND CEMENT CONCRETE
  4" COMPACTED AGGREGATE BASE COURSE, TYPE B
- GUARDRAIL PER IDOT STD.63001 (SEE DETAIL)
- WOODEN SPLIT RAIL FENCE (SEE DETAIL)
- RETAINING WALL (DESIGN BY OTHERS)
- METAL CABLE GUARDRAIL PER GIBRALTAR TL4 DETAIL

0 10 20 40
SCALE: 1"=20'
VERTICAL SCALE: 1"=5'




# PEDESTRIAN AND BICYCLE PATHWAY ALONG COLLEGE DRIVE

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PEDESTRIAN AND BICYCLE PATHWAY
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PLAN AND PROFILE - COLLEGE DRIVE STA. 20+00 TO 25+00

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
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## LEGEND

- PAVEMENT REPLACEMENT
  1–1/2" BITUMINOUS SURFACE COURSE, HOT–MIX ASPHALT, MIX D, N50
  2–1/2" BITUMINOUS BINDER COURSE, HOT–MIX ASPHALT, IL 19.0, N50
  4" AGGREGATE BASE COURSE, TYPE B
- BIKE PATH
  4" BITUMINOUS SURFACE COURSE, HOT–MIX ASPHALT, MIX D, N50
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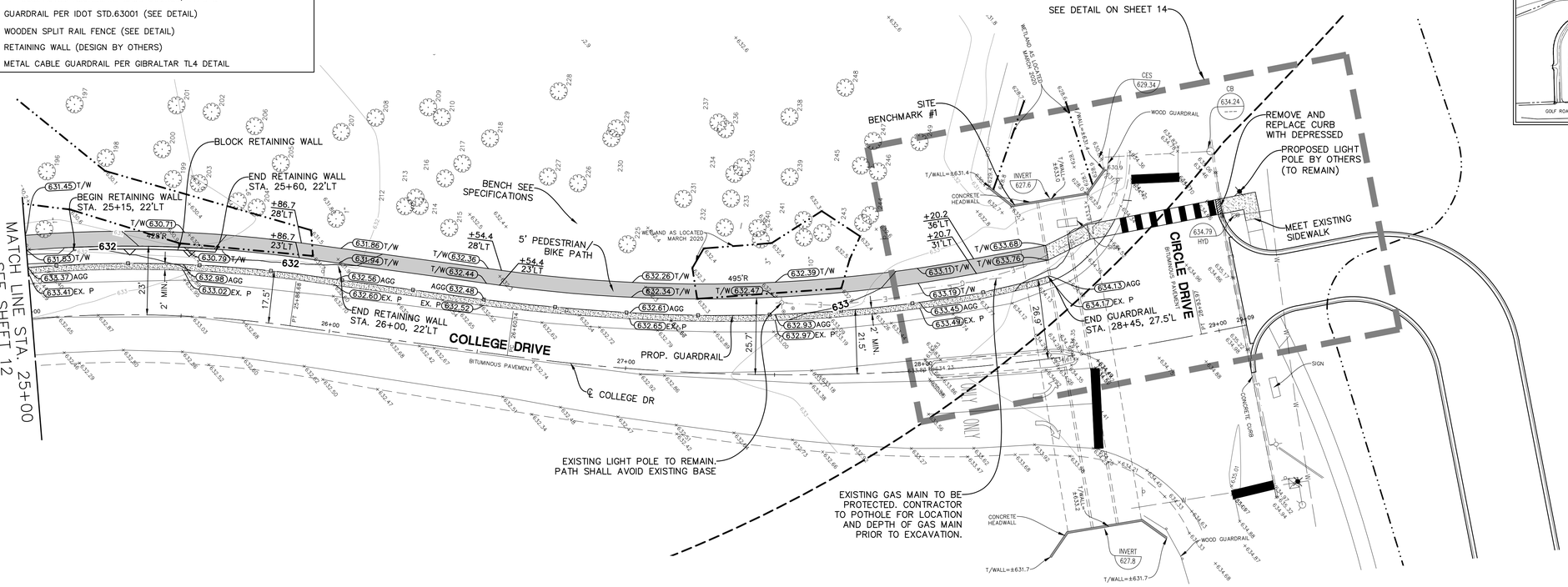
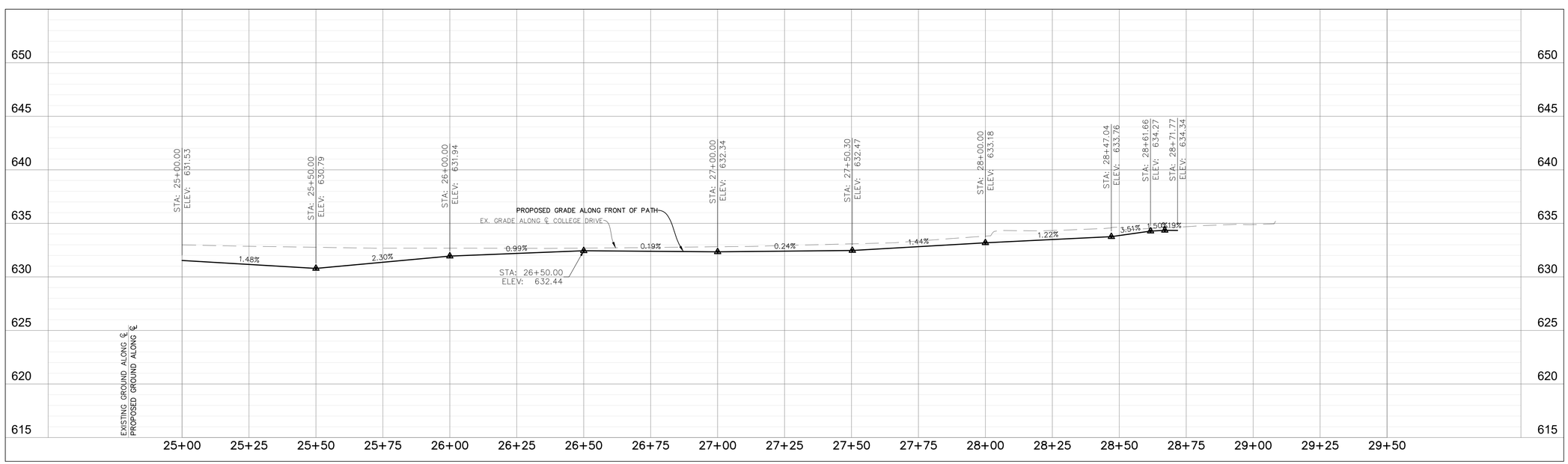
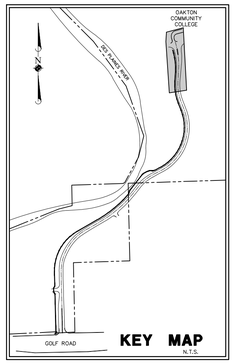
- RETAINING WALL (DESIGN BY OTHERS)
- METAL CABLE GUARDRAIL PER GIBRALTAR TL4 DETAIL




# PEDESTRIAN AND BICYCLE PATHWAY ALONG COLLEGE DRIVE

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| 02–09–22 | FINAL BID SET | NBA |
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PLAN AND PROFILE - COLLEGE DRIVE STA. 25+00 TO 29+09

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DRAWN BY: REH
DATE: 05–04–21
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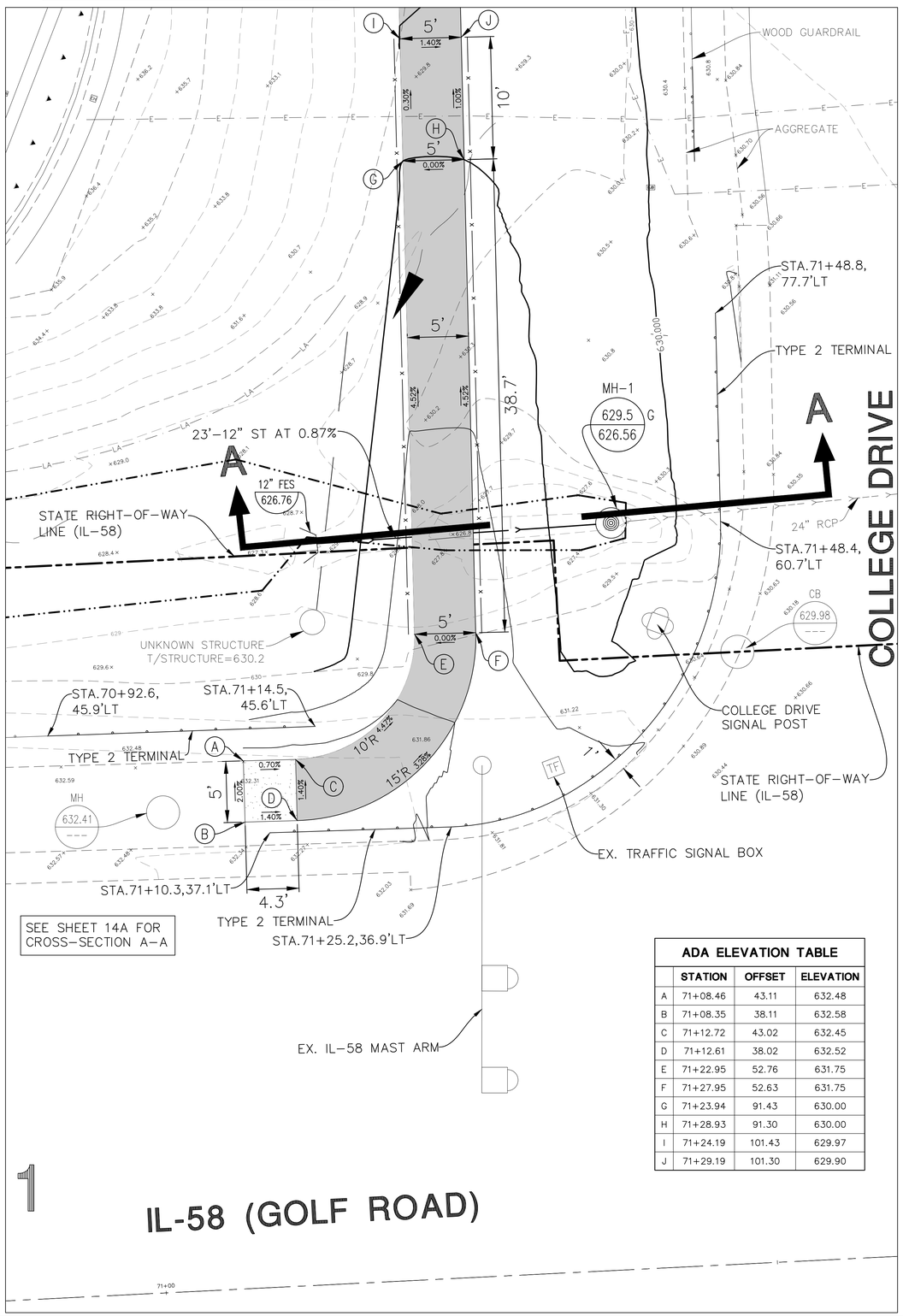
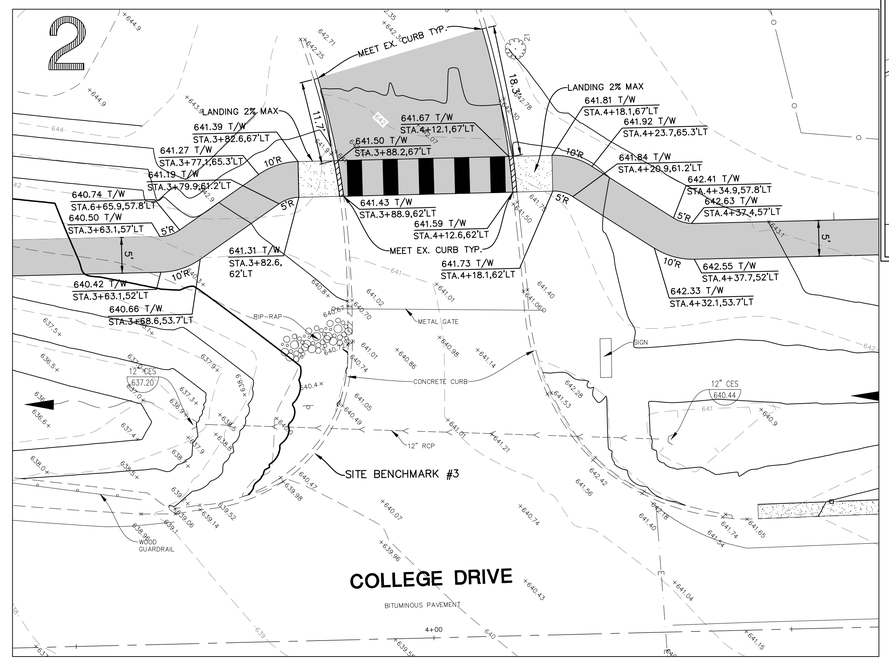
NOTES:

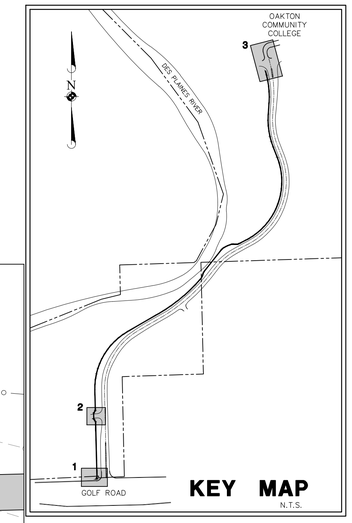
1. GOLF ROAD STATIONING TAKEN FROM PLANS FOR IDOT PROJECT BRF-F-339 (21), DATED AUGUST 16, 2002.
2. STATIONING BEGINS AT INTERSECTION OF GOLF ROAD AND RIVER ROAD. GOLF ROAD STA. 62+067.587, RIVER ROAD STA. 5+000.

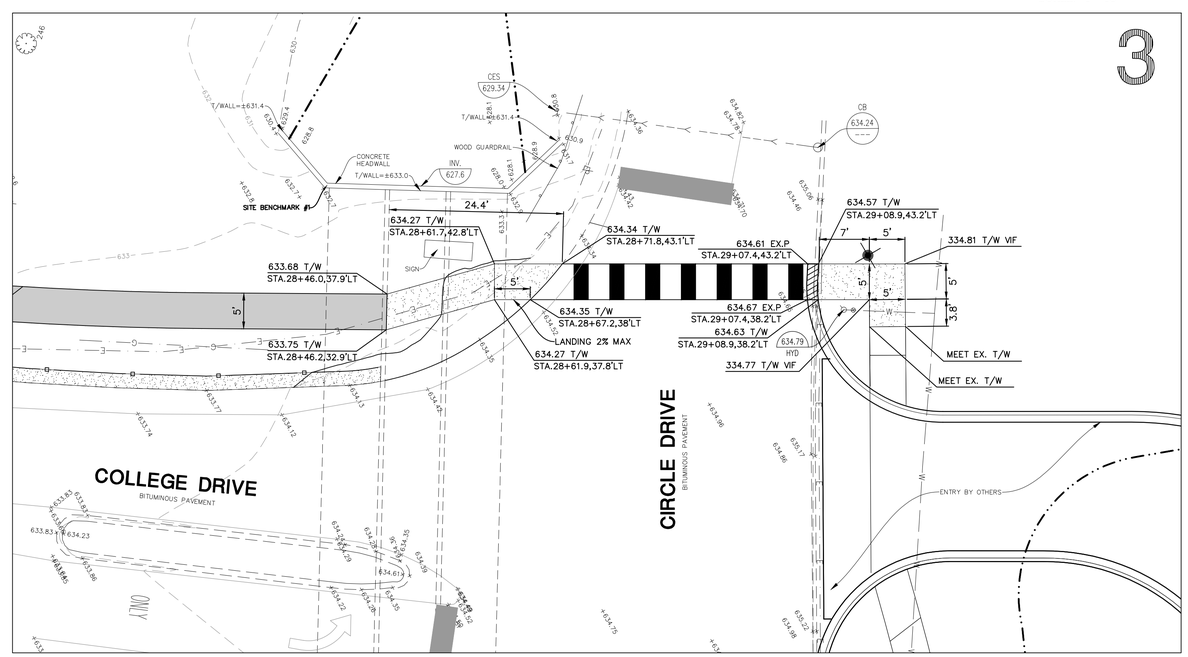



SEE SHEET 14A FOR CROSS-SECTION A-A

| ADA ELEVATION TABLE | | | |
|---|---|---|---|
| | STATION | OFFSET | ELEVATION |
| A | 71+08.46 | 43.11 | 632.48 |
| B | 71+08.35 | 38.11 | 632.58 |
| C | 71+12.72 | 43.02 | 632.45 |
| D | 71+12.61 | 38.02 | 632.52 |
| E | 71+22.95 | 52.76 | 631.75 |
| F | 71+27.95 | 52.63 | 631.75 |
| G | 71+23.94 | 91.43 | 630.00 |
| H | 71+28.93 | 91.30 | 630.00 |
| I | 71+24.19 | 101.43 | 629.97 |
| J | 71+29.19 | 101.30 | 629.90 |

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ADA GRADING DETAIL

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: REH
DATE: 05-04-21
SCALE: VARIES

SHEET 14 OF 30

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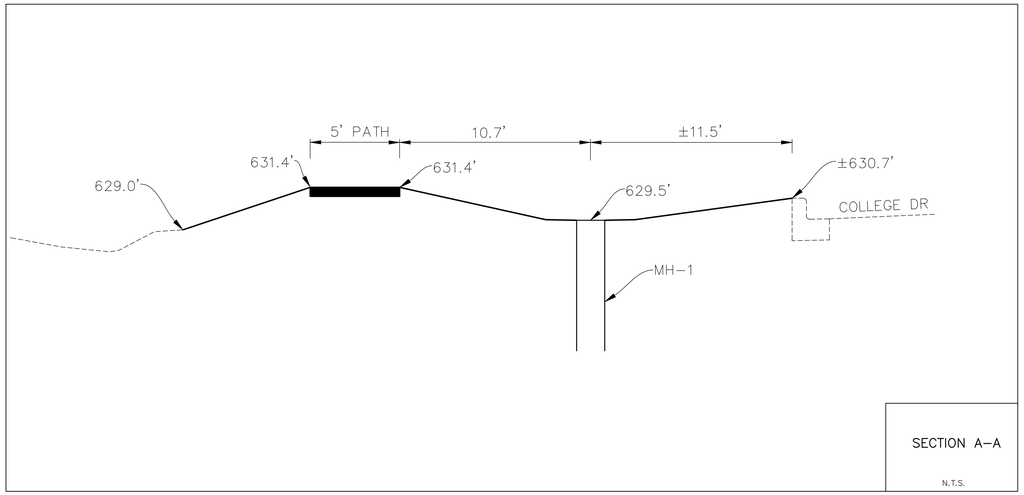
January 19, 2022 – 14:14 Dwg Name: p:\occdpil10\data\Eng\Civil drawings\Plan Set\14-ADA-GRADING.dwg Updated By: ASanchez

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DITCH CROSS SECTION

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: REH
DATE: 05-04-21
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November 12, 2021 – 11:56 Dwg Name: p:\occdpil10\data\Eng\final drawings\Plan Set\14A-DITCH CROSS-SECTION.dwg Updated By: NAdams

06-01-16

## SOIL EROSION AND SEDIMENTATION CONTROL GENERAL NOTES:

1. ALL VEGETATIVE AND STRUCTURAL EROSION CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE "ILLINOIS URBAN MANUAL".
2. MAINTENANCE AND REPLACEMENT OF EROSION CONTROL ITEMS, WHEN DIRECTED BY THE OWNER, SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.
3. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER OR EQUIVALENT SNOWFALL. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF SAID MEASURES SHALL BE MADE IMMEDIATELY.
4. INSTALL ALL PERIMETER SILT FENCING PRIOR TO ANY CLEARING OR GRADING. ONSITE SEDIMENT CONTROL MEASURES AS SHOWN AND SPECIFIED BY THIS EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE CONSTRUCTED AND FUNCTIONAL PRIOR TO INITIATING CLEARING, GRADING, STRIPPING, EXCAVATION OR FILLING ACTIVITIES ON THE SITE.
5. THE CONTRACTOR SHALL CONSTRUCT DITCHES, SWALES, SEDIMENT TRAPS AND SILTATION CONTROL MEASURES AS REQUIRED TO INTERCEPT SURFACE WATERS BEFORE THEY FLOW ONTO ADJACENT PROPERTY.
6. STABILIZATION OF DISTURBED AREAS MUST BE INITIATED IMMEDIATELY WHENEVER ANY CLEARING, GRADING, EXCAVATING OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE SITE, OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. STABILIZATION OF DISTURBED AREAS MUST BE INITIATED WITHIN 1 WORKING DAY OF PERMANENT OR TEMPORARY CESSATION OF EARTH DISTURBING ACTIVITIES AND SHALL BE COMPLETED AS SOON AS POSSIBLE BUT NOT LATER THAN 14 DAYS FROM THE INITIATION OF STABILIZATION WORK IN AN AREA.
7. TEMPORARY SEED MIXTURE SHALL BE APPLIED AT 64 LBS/ACRE.
8. INLET PROTECTION SHALL BE INSTALLED UNDER THE GRATING OF EACH DRAINAGE STRUCTURE.
9. STABILIZATION OF TOPSOIL STOCKPILES SHALL BE INITIATED IMMEDIATLEY UPON COMPLETION UNLESS THEY WILL BE DISTURBED WITHIN FOURTEEN (14) CALENDAR DAYS. STABILIZATION OF STOCKPILES MUST BE INITIATED WITHIN 1 WORKING DAY OF PERMANENT OR TEMPORARY CESSATION OF EARTH DISTURBING ACTIVITIES AND SHALL BE COMPLETED AS SOON AS POSSIBLE BUT NOT LATER THAN 14 DAYS FROM THE INITIATION OF STABILIZATION WORK IN AN AREA. ALL SOIL STORAGE PILES SHALL BE PROTECTED FROM EROSION WITH SILT FENCE ON THE DOWN SLOPE SIDE OF THE PILES.
10. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO FILTER BAGS. DEWATERING DIRECTLY INTO FIELD TILES OR STORMWATER STRUCTURES IS PROHIBITED.
11. WATER PUMPED DURING CONSTRUCTION OPERATION SHALL BE FILTERED.
12. DUST CONTROL SHALL BE PERFORMED ON A DAILY BASIS USING WATER DISPERSED FROM A TRUCK MOUNTED TANK WITH STANDARD DISCHARGE HEADER TO PROVIDE A UNIFORM RATE OF APPLICATION.
13. TEMPORARY GRAVEL CONSTRUCTION ENTRANCES SHALL BE MAINTAINED, ADJUSTED OR RELOCATED AS NECESSARY TO PREVENT SEDIMENT FROM BEING TRACKED ONTO PUBLIC ROADWAYS. ANY SEDIMENT REACHING A PUBLIC ROAD SHALL BE REMOVED BY SHOVELING OR STREET CLEANING BEFORE THE END OF EACH WORKING DAY.
14. ANY LOOSE MATERIAL THAT IS DEPOSITED IN THE FLOW LINE OF ANY GUTTER OR DRAINAGE STRUCTURE DURING CONSTRUCTION OPERATIONS SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY.
15. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE CLIENT OR OTHER JURISDICTIONAL GOVERNMENTAL ENTITIES.
16. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH ALL JURISDICTIONAL GOVERNMENTAL AGENCY REQUIREMENTS WITHIN 30 DAYS OF FINAL STABILIZATION.
17. CONTRACTOR TO SCHEDULE A PRE-CONSTRUCTION MEETING NORTH COOK COUNTY SOIL AND WATER CONSERVATION DISTRICT (SWCD) TO DISCUSS THE SESC PLAN AND THE INSTALLATION AND MAINTENANCE REQUIREMENTS OF THE SESC PRACTICES ON THE SITE. CONTRACTOR TO CONTACT THE SWCD AT LEAST 10 CALENDAR DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING SO THAT A REPRESENTATIVE MAY ATTEND. THEY CAN BE REACHED AT (224) 875-7580.
18. CONTRACTOR SHALL NOTIFY THE SWCD OF ANY CHANGES OR MODIFICATIONS TO THE APPROVED PLAN SET. FIELD CONDITIONS DURING PROJECT CONSTRUCTION MAY REQUIRE THE IMPLEMENTATION OF ADDITIONAL SESC MEASURES. IF YOU FAIL TO IMPLEMENT CORRECTIVE MEASURES, THIS OFFICE MAY REQUIRE MORE FREQUENT SITE INSPECTIONS TO ENSURE THE INSTALLED SESC MEASURES ARE ACCEPTABLE.

06-01-16

## CONSTRUCTION SEQUENCE:

1. INSTALL SILT FENCE AND CULVERT PROTECTION AT LOCATIONS AS INDICATED ON THE PLANS.
2. PROVIDE STABILIZED CONSTRUCTION ENTRANCE.
3. CONSTRUCT TEMPORARY SEDIMENT TRAPS AS NECESSARY.
4. STRIP EXISTING TOPSOIL FROM PROPOSED LIMITS OF DISTURBANCE AND STOCKPILE WHERE SHOWN ON PLANS.
5. PROVIDE SILT FENCE AROUND THE BASE OF THE STOCKPILES.
6. CUT AND FILL SITE TO PLAN SUB-GRADE.
7. CONSTRUCT UNDERGROUND IMPROVEMENTS, i.e. STORM SEWER**.
8. CONSTRUCT PAVEMENT IMPROVEMENTS PER PLAN.
9. COMPLETE CONSTRUCTION OF SITE WITH PERMANENT STABILIZATION.
10. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.

** INSTALL INLET PROTECTION AROUND DRAINAGE STRUCTURES AS CONSTRUCTED.

## SOIL PROTECTION CHART

| STABILIZATION CHART | | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERMANENT SEEDINGS | | | | A | | | * | * | | * | | | |
| DORMANT SEEDINGS | B | → | | | | | | | | | B | | → |
| TEMPORARY SEEDINGS | | | | C | | | | | | → | | | |
| TEMPORARY SEEDINGS | D | → | | | | | | | | | | | → |
| SODDING | | | | E ** | | | | | | → | | | |
| MULCHING | F | → | | | | | | | | | | | → |

A – KENTUCKY BLUEGRASS 90 LBS./AC. MIXED WITH PERENNIAL RYEGRASS 30 LBS./AC.

B – KENTUCKY BLUEGRASS 135 LBS./AC. MIXED WITH PERENNIAL RYEGRASS 45 LBS./AC. 2 TONS STRAW MULCH PER ACRE

C – SPRING OATS

D – WHEAT OR CEREAL RYE

E – SOD (NURSERY GROWN KENTUCKY BLUEGRASS)

F – STRAW MULCH 2 TONS PER ACRE

* IRRIGATION NEEDED DURING JUNE, JULY AND SEPTEMBER

** IRRIGATION NEEDED FOR 2-3 WEEKS AFTER SODDING

NOTE: THIS CHART IS A GUIDE TO ASSISTS THE CONTRACTOR IN UNDERSTANDING OPTIONS FOR SOIL STABILIZATION. THE LANDSCAPE PLAN SHALL TAKE PRECEDENCE OVER THIS CHART. ANY CONFLICT SHALL BE DISCUSSED WITH THE LANDSCAPE ARCHITECT PRIOR TO THE START OF CONSTRUCTION.

06-01-16

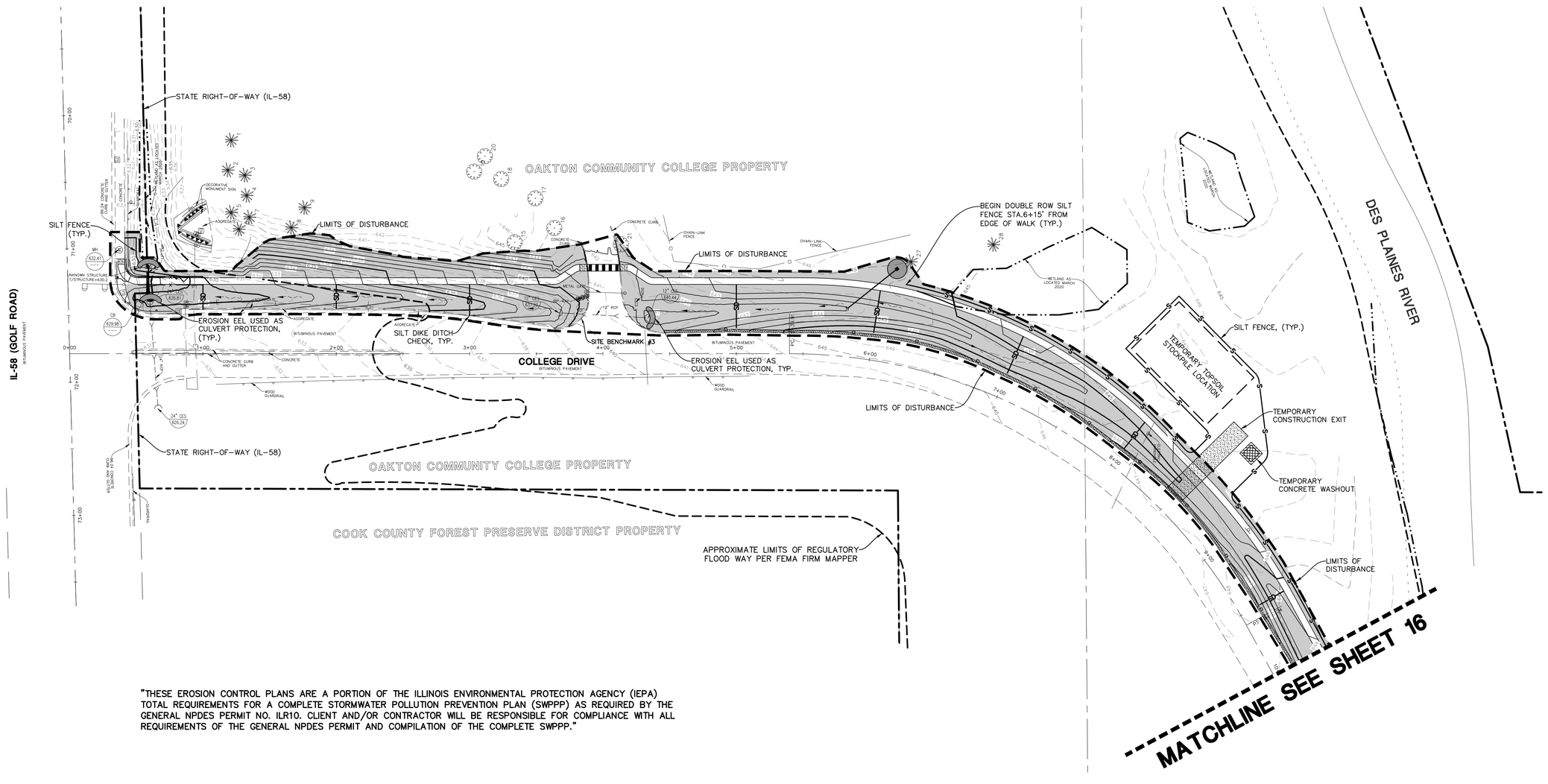
## LEGEND

| | |
|---|---|
| —S——S— | TEMPORARY DOUBLE ROW SILT FENCE (PERIMETER EROSION BARRIER) |
| —SD——SD— | TEMPORARY SILT DIKE |
| —EE——EE— | TEMPORARY EROSION EEL |
| | EROSION CONTROL BLANKET (NORTH AMERICAN GREEN DS 75) (SEEDING PER LANDSCAPE PLAN) |
| | TEMPORARY GRAVEL CONSTRUCTION EXIT |
| | TEMPORARY STORM STRUCTURE PROTECTION |
| | TEMPORARY CULVERT INLET PROTECTION |
| | PAVEMENT DRAINAGE FLOW |
| | SWALE DRAINAGE FLOW |
| | LIMITS OF DISTURBANCE/CONSTRUCTION |

N

0 20 40 80

SCALE: 1"=40'




"THESE EROSION CONTROL PLANS ARE A PORTION OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA) TOTAL REQUIREMENTS FOR A COMPLETE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY THE GENERAL NPDES PERMIT NO. ILR10. CLIENT AND/OR CONTRACTOR WILL BE RESPONSIBLE FOR COMPLIANCE WITH ALL REQUIREMENTS OF THE GENERAL NPDES PERMIT AND COMPILATION OF THE COMPLETE SWPPP."

| DATE | REVISIONS | DRAWN BY |
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| 12-23-22 | REVISED FOR BIDS | NBA |
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OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS

SOIL EROSION AND SEDIMENT CONTROL PLAN - SOUTH

| | |
|---|---|
| PROJ. MGR.: | DBM |
| PROJ. ASSOC.: | JWS |
| DRAWN BY: | REH |
| DATE: | 05-04-21 |
| SCALE: | 1"=40' |

SHEET 15 OF 30

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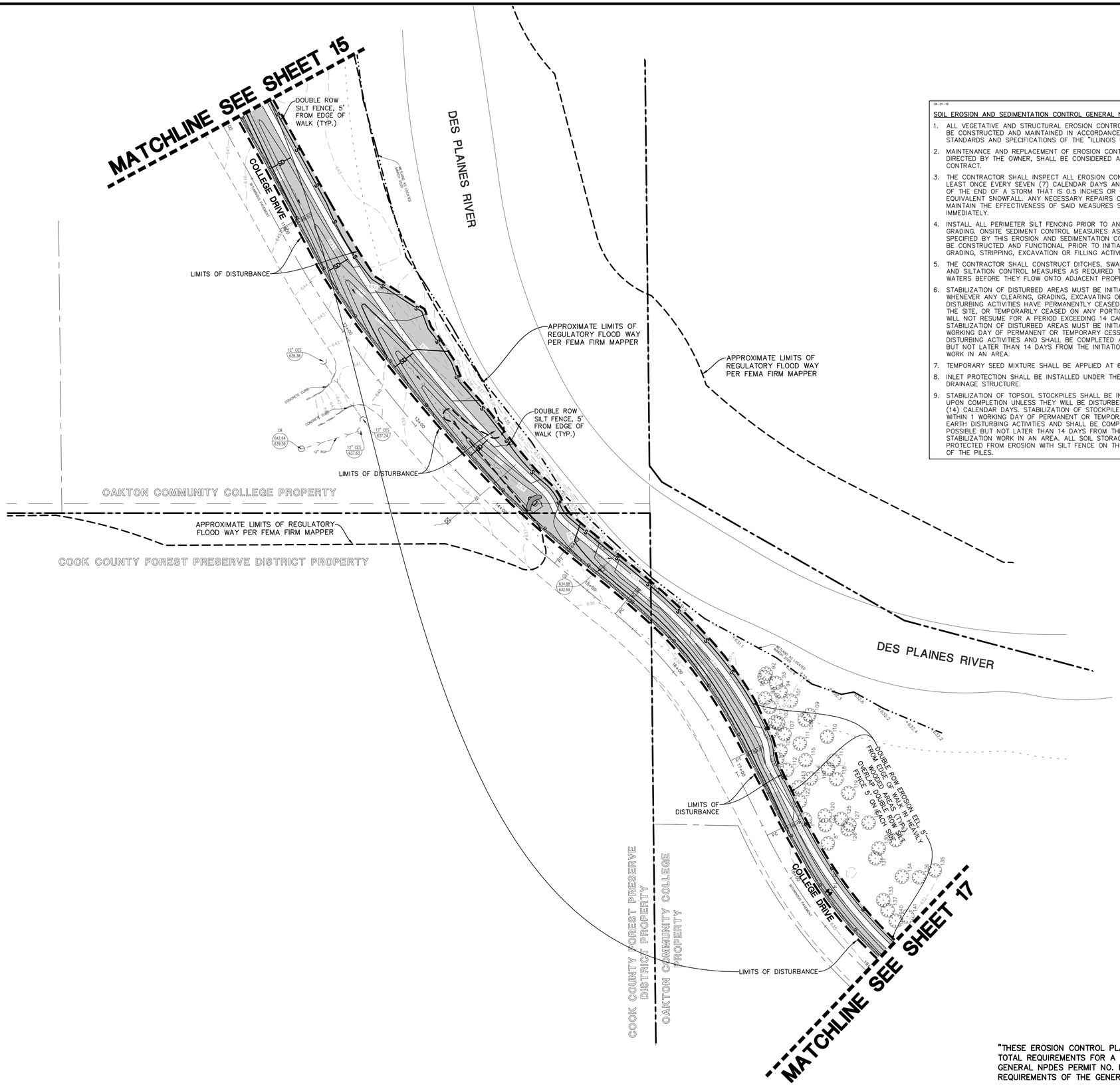


0 20 40 80

SCALE: 1"=40'

06-01-16

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4. INSTALL ALL PERIMETER SILT FENCING PRIOR TO ANY CLEARING OR GRADING. ONSITE SEDIMENT CONTROL MEASURES AS SHOWN AND SPECIFIED BY THIS EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE CONSTRUCTED AND FUNCTIONAL PRIOR TO INITIATING CLEARING, GRADING, STRIPPING, EXCAVATION OR FILLING ACTIVITIES ON THE SITE.
5. THE CONTRACTOR SHALL CONSTRUCT DITCHES, SWALES, SEDIMENT TRAPS AND SILTATION CONTROL MEASURES AS REQUIRED TO INTERCEPT SURFACE WATERS BEFORE THEY FLOW ONTO ADJACENT PROPERTY.
6. STABILIZATION OF DISTURBED AREAS MUST BE INITIATED IMMEDIATELY WHENEVER ANY CLEARING, GRADING, EXCAVATING OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE SITE, OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. STABILIZATION OF DISTURBED AREAS MUST BE INITIATED WITHIN 1 WORKING DAY OF PERMANENT OR TEMPORARY CESSATION OF EARTH DISTURBING ACTIVITIES AND SHALL BE COMPLETED AS SOON AS POSSIBLE BUT NOT LATER THAN 14 DAYS FROM THE INITIATION OF STABILIZATION WORK IN AN AREA.
7. TEMPORARY SEED MIXTURE SHALL BE APPLIED AT 64 LBS/ACRE.
8. INLET PROTECTION SHALL BE INSTALLED UNDER THE GRATING OF EACH DRAINAGE STRUCTURE.
9. STABILIZATION OF TOPSOIL STOCKPILES SHALL BE INITIATED IMMEDIATLEY UPON COMPLETION UNLESS THEY WILL BE DISTURBED WITHIN FOURTEEN (14) CALENDAR DAYS. STABILIZATION OF STOCKPILES MUST BE INITIATED WITHIN 1 WORKING DAY OF PERMANENT OR TEMPORARY CESSATION OF EARTH DISTURBING ACTIVITIES AND SHALL BE COMPLETED AS SOON AS POSSIBLE BUT NOT LATER THAN 14 DAYS FROM THE INITIATION OF STABILIZATION WORK IN AN AREA. ALL SOIL STORAGE PILES SHALL BE PROTECTED FROM EROSION WITH SILT FENCE ON THE DOWN SLOPE SIDE OF THE PILES.
10. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO FILTER BAGS. DEWATERING DIRECTLY INTO FIELD TILES OR STORMWATER STRUCTURES IS PROHIBITED.
11. WATER PUMPED DURING CONSTRUCTION OPERATION SHALL BE FILTERED.
12. DUST CONTROL SHALL BE PERFORMED ON A DAILY BASIS USING WATER DISPERSED FROM A TRUCK MOUNTED TANK WITH STANDARD DISCHARGE HEADER TO PROVIDE A UNIFORM RATE OF APPLICATION.
13. TEMPORARY GRAVEL CONSTRUCTION ENTRANCES SHALL BE MAINTAINED, ADJUSTED OR RELOCATED AS NECESSARY TO PREVENT SEDIMENT FROM BEING TRACKED ONTO PUBLIC ROADWAYS. ANY SEDIMENT REACHING A PUBLIC ROAD SHALL BE REMOVED BY SHOVELING OR STREET CLEANING BEFORE THE END OF EACH WORKING DAY.
14. ANY LOOSE MATERIAL THAT IS DEPOSITED IN THE FLOW LINE OF ANY GUTTER OR DRAINAGE STRUCTURE DURING CONSTRUCTION OPERATIONS SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY.
15. THE EROSION CONTROL MEASURES INDICATED ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE CLIENT OR OTHER JURISDICTIONAL GOVERNMENTAL ENTITIES.
16. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH ALL JURISDICTIONAL GOVERNMENTAL AGENCY REQUIREMENTS WITHIN 30 DAYS OF FINAL STABILIZATION.
17. CONTRACTOR TO SCHEDULE A PRE-CONSTRUCTION MEETING NORTH COOK COUNTY SOIL AND WATER CONSERVATION DISTRICT (SWCD) TO DISCUSS THE SESC PLAN AND THE INSTALLATION AND MAINTENANCE REQUIREMENTS OF THE SESC PRACTICES ON THE SITE. CONTRACTOR TO CONTACT THE SWCD AT LEAST 10 CALENDAR DAYS PRIOR TO THE PRE-CONSTRUCTION MEETING SO THAT A REPRESENTATIVE MAY ATTEND. THEY CAN BE REACHED AT (224) 875-7580.
18. CONTRACTOR SHALL NOTIFY THE SWCD OF ANY CHANGES OR MODIFICATIONS TO THE APPROVED PLAN SET. FIELD CONDITIONS DURING PROJECT CONSTRUCTION MAY REQUIRE THE IMPLEMENTATION OF ADDITIONAL SESC MEASURES. IF YOU FAIL TO IMPLEMENT CORRECTIVE MEASURES, THIS OFFICE MAY REQUIRE MORE FREQUENT SITE INSPECTIONS TO ENSURE THE INSTALLED SESC MEASURES ARE ACCEPTABLE.

06-01-16

## CONSTRUCTION SEQUENCE:

1. INSTALL SILT FENCE AND CULVERT PROTECTION AT LOCATIONS AS INDICATED ON THE PLANS.
2. PROVIDE STABILIZED CONSTRUCTION ENTRANCE.
3. CONSTRUCT TEMPORARY SEDIMENT TRAPS AS NECESSARY.
4. STRIP EXISTING TOPSOIL FROM PROPOSED LIMITS OF DISTURBANCE AND STOCKPILE WHERE SHOWN ON PLANS.
5. PROVIDE SILT FENCE AROUND THE BASE OF THE STOCKPILES.
6. CUT AND FILL SITE TO PLAN SUB-GRADE.
7. CONSTRUCT UNDERGROUND IMPROVEMENTS, i.e. STORM SEWER**.
8. CONSTRUCT PAVEMENT IMPROVEMENTS PER PLAN.
9. COMPLETE CONSTRUCTION OF SITE WITH PERMANENT STABILIZATION.
10. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.

** INSTALL INLET PROTECTION AROUND DRAINAGE STRUCTURES AS CONSTRUCTED.

06-01-16

## LEGEND

- —S——S— TEMPORARY DOUBLE ROW SILT FENCE (PERIMETER EROSION BARRIER)
- —SD——SD— TEMPORARY SILT DIKE
- —EE——EE— TEMPORARY EROSION EEL
- EROSION CONTROL BLANKET (NORTH AMERICAN GREEN DS 75) (SEEDING PER LANDSCAPE PLAN)
- TEMPORARY GRAVEL CONSTRUCTION EXIT
- TEMPORARY STORM STRUCTURE PROTECTION
- TEMPORARY CULVERT INLET PROTECTION
- PAVEMENT DRAINAGE FLOW
- SWALE DRAINAGE FLOW
- LIMITS OF DISTURBANCE/CONSTRUCTION

## SOIL PROTECTION CHART

| STABILIZATION CHART | | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERMANENT SEEDINGS | | | | A | | | | * | | | | | |
| DORMANT SEEDINGS | B | | | | | | | | | | B | | |
| TEMPORARY SEEDINGS | | | | C | | | | | | | | | |
| TEMPORARY SEEDINGS | D | | | | | | | | | | | | |
| SODDING | | | | E ** | | | | | | | | | |
| MULCHING | F | | | | | | | | | | | | |

A – KENTUCKY BLUEGRASS 90 LBS./AC. MIXED WITH PERENNIAL RYEGRASS 30 LBS./AC.

B – KENTUCKY BLUEGRASS 135 LBS./AC. MIXED WITH PERENNIAL RYEGRASS 45 LBS./AC. 2 TONS STRAW MULCH PER ACRE

C – SPRING OATS

D – WHEAT OR CEREAL RYE

E – SOD (NURSERY GROWN, KENTUCKY BLUEGRASS)

F – STRAW MULCH 2 TONS PER ACRE

* IRRIGATION NEEDED DURING JUNE, JULY AND SEPTEMBER

** IRRIGATION NEEDED FOR 2-3 WEEKS AFTER SODDING

NOTE: THIS CHART IS A GUIDE TO ASSISTS THE CONTRACTOR IN UNDERSTANDING OPTIONS FOR SOIL STABILIZATION. THE LANDSCAPE PLAN SHALL TAKE PRECEDENCE OVER THIS CHART. ANY CONFLICT SHALL BE DISCUSSED WITH THE LANDSCAPE ARCHITECT PRIOR TO THE START OF CONSTRUCTION.

"THESE EROSION CONTROL PLANS ARE A PORTION OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA) TOTAL REQUIREMENTS FOR A COMPLETE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY THE GENERAL NPDES PERMIT NO. ILR10. CLIENT AND/OR CONTRACTOR WILL BE RESPONSIBLE FOR COMPLIANCE WITH ALL REQUIREMENTS OF THE GENERAL NPDES PERMIT AND COMPILATION OF THE COMPLETE SWPPP."

| DATE | REVISIONS | DRAWN BY |
|---|---|---|
| 12-23-22 | REVISED FOR BIDS | NBA |
| 07-19-22 | REVISED PER IDPH | NBA |
| 01-19-22 | REVISED FOR METAL CABLE GAURDRAIL | NBA |
| 11-10-21 | ISSUED FOR BIDS | NBA |

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SOIL EROSION AND SEDIMENT CONTROL PLAN - CENTER

| | |
|---|---|
| PROJ. MGR.: | DBM |
| PROJ. ASSOC.: | JWS |
| DRAWN BY: | REH |
| DATE: | 05-04-21 |
| SCALE: | 1"=40' |

SHEET 16 OF 30

OCCDPIL10

ISSUED FOR BID

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December 21, 2022 – 10:14 Dwg Name: p:\occdpil10\dwg\Eng\Final drawings\Plan Set\15-17-SESCP.dwg Updated By: WKorn

06-01-16

## SOIL EROSION AND SEDIMENTATION CONTROL GENERAL NOTES:

1. ALL VEGETATIVE AND STRUCTURAL EROSION CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE "ILLINOIS URBAN MANUAL".
2. MAINTENANCE AND REPLACEMENT OF EROSION CONTROL ITEMS, WHEN DIRECTED BY THE OWNER, SHALL BE CONSIDERED AS INCIDENTAL TO THE CONTRACT.
3. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER OR EQUIVALENT SNOWFALL. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF SAID MEASURES SHALL BE MADE IMMEDIATELY.
4. INSTALL ALL PERIMETER SILT FENCING PRIOR TO ANY CLEARING OR GRADING. ONSITE SEDIMENT CONTROL MEASURES AS SHOWN AND SPECIFIED BY THIS EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE CONSTRUCTED AND FUNCTIONAL PRIOR TO INITIATING CLEARING, GRADING, STRIPPING, EXCAVATION OR FILLING ACTIVITIES ON THE SITE.
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06-01-16

## CONSTRUCTION SEQUENCE:

1. INSTALL SILT FENCE AND CULVERT PROTECTION AT LOCATIONS AS INDICATED ON THE PLANS.
2. PROVIDE STABILIZED CONSTRUCTION ENTRANCE.
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5. PROVIDE SILT FENCE AROUND THE BASE OF THE STOCKPILES.
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10. REMOVE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES.

** INSTALL INLET PROTECTION AROUND DRAINAGE STRUCTURES AS CONSTRUCTED.

## SOIL PROTECTION CHART

| STABILIZATION CHART | | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERMANENT SEEDINGS | | | | A | | | * | * | | * | | | |
| DORMANT SEEDINGS | B | | | | | | | | | | B | | |
| TEMPORARY SEEDINGS | | | | C | | | | | | | | | |
| TEMPORARY SEEDINGS | D | | | | | | | | | | | | |
| SODDING | | | | E** | | | | | | | | | |
| MULCHING | F | | | | | | | | | | | | |

A - KENTUCKY BLUEGRASS
90 LBS./AC. MIXED WITH PERENNIAL RYEGRASS
30 LBS./AC.

B - KENTUCKY BLUEGRASS
135 LBS./AC. MIXED WITH PERENNIAL RYEGRASS
45 LBS./AC. 2 TONS STRAW MULCH PER ACRE

C - SPRING OATS

D - WHEAT OR CEREAL RYE

E - SOD (NURSERY GROWN KENTUCKY BLUEGRASS)

F - STRAW MULCH
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* IRRIGATION NEEDED DURING JUNE, JULY AND SEPTEMBER

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06-01-16

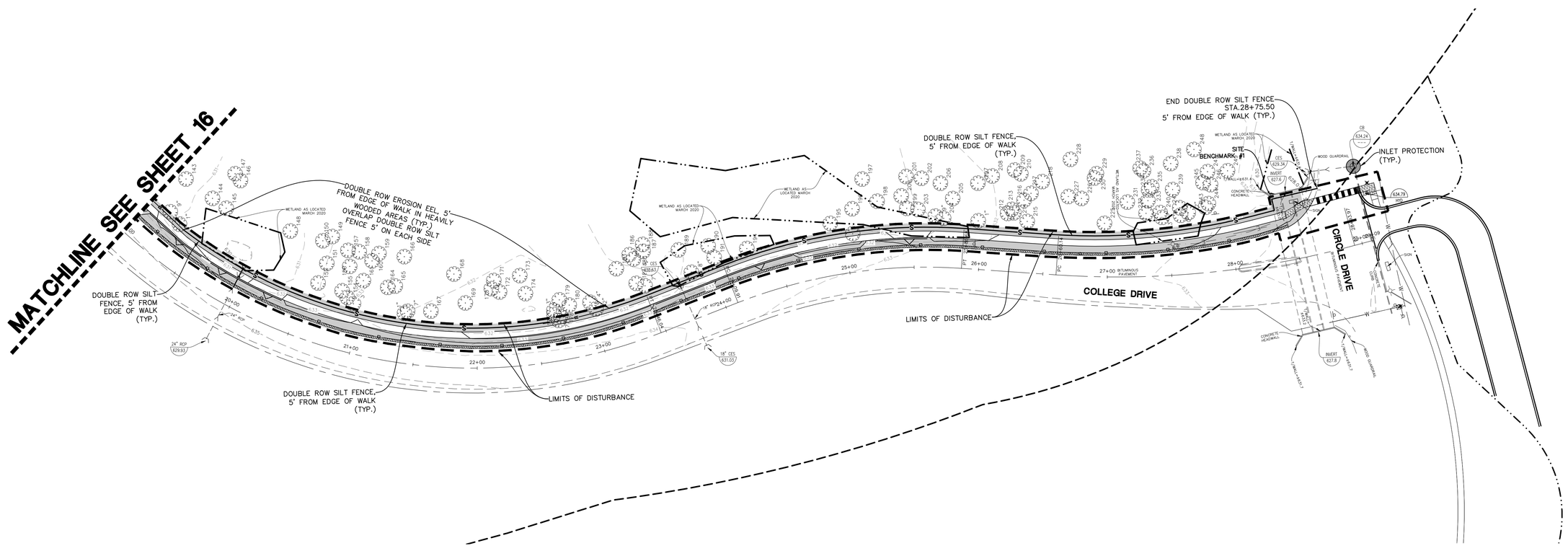
## LEGEND

| | |
|---|---|
| —S——S— | TEMPORARY DOUBLE ROW SILT FENCE (PERIMETER EROSION BARRIER) |
| —SD——SD— | TEMPORARY SILT DIKE |
| —EE——EE— | TEMPORARY EROSION EEL |
| | EROSION CONTROL BLANKET (NORTH AMERICAN GREEN DS 75) (SEEDING PER LANDSCAPE PLAN) |
| | TEMPORARY GRAVEL CONSTRUCTION EXIT |
| | TEMPORARY STORM STRUCTURE PROTECTION |
| | TEMPORARY CULVERT INLET PROTECTION |
| | PAVEMENT DRAINAGE FLOW |
| | SWALE DRAINAGE FLOW |
| | LIMITS OF DISTURBANCE/CONSTRUCTION |

N

0 20 40 80

SCALE: 1"=40'




"THESE EROSION CONTROL PLANS ARE A PORTION OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA) TOTAL REQUIREMENTS FOR A COMPLETE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AS REQUIRED BY THE GENERAL NPDES PERMIT NO. ILR10. CLIENT AND/OR CONTRACTOR WILL BE RESPONSIBLE FOR COMPLIANCE WITH ALL REQUIREMENTS OF THE GENERAL NPDES PERMIT AND COMPILATION OF THE COMPLETE SWPPP."

| DATE | REVISIONS | DRAWN BY |
|---|---|---|
| 11-10-21 | ISSUED FOR BIDS | NBA |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PEDESTRIAN AND BICYCLE PATHWAY

OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS

SOIL EROSION AND SEDIMENT CONTROL PLAN - NORTH

| | |
|---|---|
| PROJ. MGR.: | DBM |
| PROJ. ASSOC.: | JWS |
| DRAWN BY: | REH |
| DATE: | 05-04-21 |
| SCALE: | 1"=40' |

SHEET 17 OF 30

OCCDPIL10

ISSUED FOR BID

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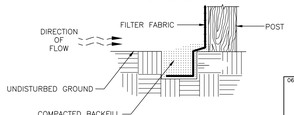
December 21, 2022 - 10:14 Dwg Name: p:\occdpil10\dwg\Eng\final drawings\Plan Set\15-17-SESCP.dwg Updated By: Wilson

1. SET 2"X2"X36" POSTS 12" INTO THE GROUND & EXCAVATE A 4"X4" TRENCH ALONG THE LINE OF POSTS.

2. ATTACH THE FILTER FABRIC TO POST AND EXTEND IT INTO THE TRENCH.

3. BACKFILL AND COMPACT THE EXCAVATED SOIL.

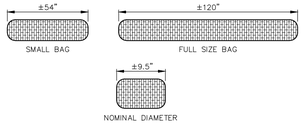
CROSS SECTION OF FABRIC AND WIRE INTO THE TRENCH.



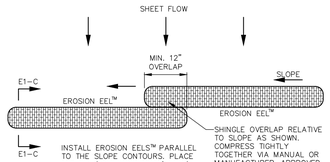

06-01-17

## SILT FENCE DETAIL

S-EC-SILT FENCE




DETAIL: EROSION EELs™
N.T.S.



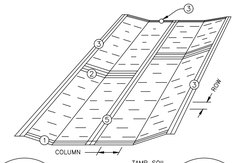

INSTALLATION FOR INTERCEPTING SHEET FLOW PERPENDICULAR TO FLOW PATH – PLAN VIEW

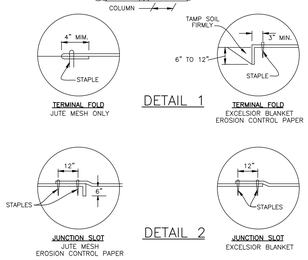
NOTE:
EROSION EELS™ SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS.

06-01-15

## TYPICAL EROSION EEL

S-EC-EEL



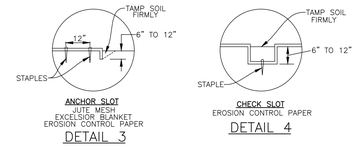



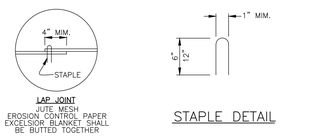

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE, ILLINOIS. IL-530

06-01-17

## EROSION BLANKET PLAN

S-EC-EROSION-BLANKET1




DETAIL 5

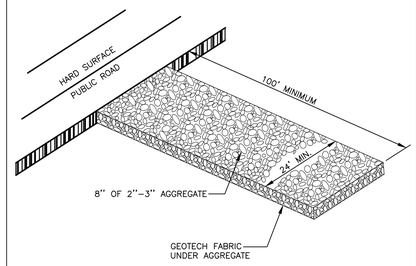
1. ON EROSION CONTROL PAPER, CHECK SLOTS, IN DITCH CHANNEL SHALL BE SPACED SO THAT ONE OCCURS WITHIN EACH 50' ON SLOPES OF MORE THAN 4% AND LESS THAN 6%. SLOPES OF 6% OR MORE, SHALL BE SPACED SO THAT ONE OCCURS WITHIN EACH 25'.
2. STAPLES TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
3. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
4. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE, ILLINOIS. IL-530

06-01-17

## EROSION BLANKET PLAN

S-EC-EROSION-BLANKET

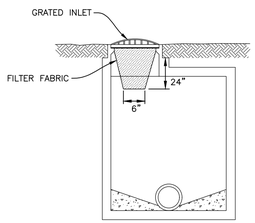



NOTE:
PERIODIC TOP DRESSING OF THE CONSTRUCTION EXIT MAY BE REQUIRED TO PREVENT TRACK OUT.

06-01-15

## GRAVEL CONSTRUCTION ACCESS DETAIL

S-EC-CONST-ENTRANCE

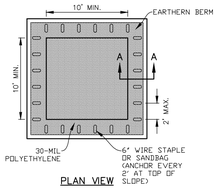



NOTE:
1. CONTRACTOR HAS THE OPTION OF USING A MANUFACTURED PRODUCT SUCH AS DANDY BAG, IPP INLET FILTER, FLEXSTORM OR APPROVED EQUAL.
2. FOR CURB STRUCTURES, CONTRACTOR HAS THE OPTION OF USING A MANUFACTURED PRODUCT SUCH AS DANDY CURB SACK OR APPROVED EQUAL.

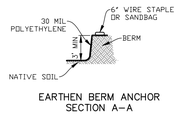
06-01-15

## FILTER BASKET INLET SEDIMENT FILTER

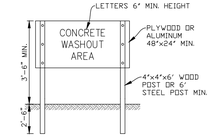
C-ST-FB-INLETPROTECT



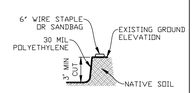

PLAN VIEW




EARTHEN BERM ANCHOR SECTION A–A




SIGN DETAIL




SUBGRADE ANCHOR SECTION A–A

NOTES:

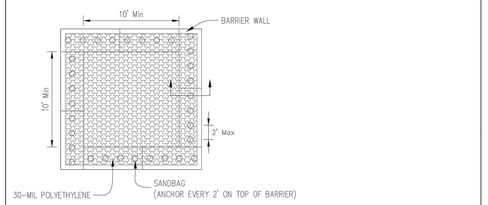
1. MAINTAINING TEMPORARY CONCRETE WASHOUT FACILITIES SHALL INCLUDE REMOVING AND DISPOSING OF HARDENED CONCRETE AND/OR SLURRY AND RETURNING THE FACILITIES TO A FUNCTIONAL CONDITION.
2. FACILITY SHALL BE CLEANED OR RECONSTRUCTED IN A NEW AREA ONCE WASHOUT BECOMES TWO–THIRDS FULL.

06-01-15

## CONCRETE WASHOUT DETAIL

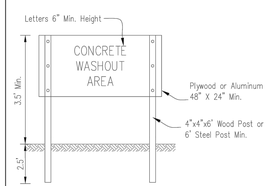
S-EC-CONC-WASHOUT

AUTOCAD2006




PLAN VIEW

BARRIER WALL ANCHOR SECTION




SIGN DETAIL

NOTES:

1. Maintaining temporary concrete washout facilities shall include removing and disposing of hardend concrete and/or slurry and returning the facilities to a functional condition.
2. Facility shall be cleaned or reconstructed in a new area once washout becomes two–thirds full.

| | | | |
|---|---|---|---|
| 1" = 1" (FULL) | 1/2" = 1" (HALF) | 1/4" = 1" (QUARTER) | 1/8" = 1" (EIGHTH) |

TEMPORARY CONCRETE WASHOUT FACILITY – BARRIER WALL

| | | Date |
|---|---|---|
| Designed | | |
| Drawn | B. JOHNSON | 5/08 |
| Checked | | |
| Approved | | |

SHOULD A CONFLICT ARISE BETWEEN MANHARD DETAILS AND THE VILLAGE DETAILS, THE VILLAGE DETAILS SHALL TAKE PRECEDENCE.

| DATE | REVISIONS | DRAWN BY |
|---|---|---|
| | | |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PEDESTRIAN AND BICYCLE PATHWAY

OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS

SOIL EROSION AND SEDIMENT CONTROL PLAN - DETAILS

| | |
|---|---|
| PROJ. MGR.: | DBM |
| PROJ. ASSOC.: | JWS |
| DRAWN BY: | REH |
| DATE: | 05-04-21 |
| SCALE: | N.T.S. |

SHEET 18 OF 30

OCCDPIL10

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February 16, 2021 – 15:02 Dwg Name: p:\occdpil10\dwg\Eng\final drawings\Plan Set\18-SESCP-DETAILS.dwg Updated By: EMenzores

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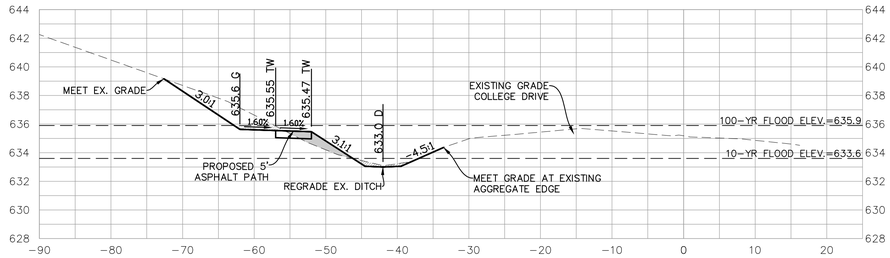
- 10-YR CUT
- 100-YR FILL
- 100-YR CUT

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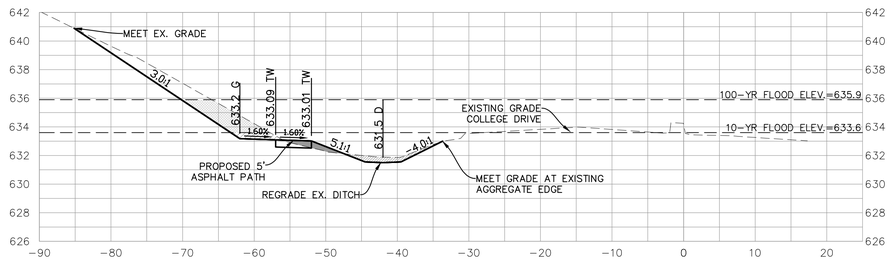


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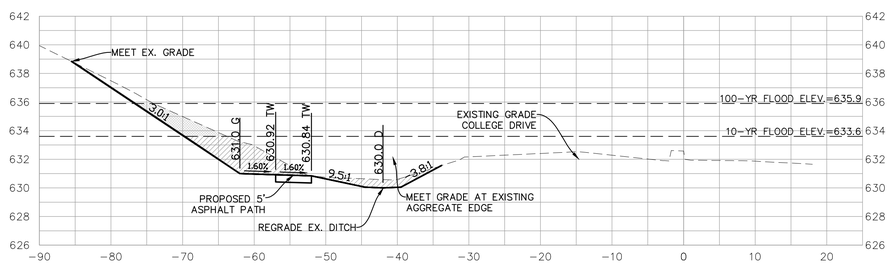


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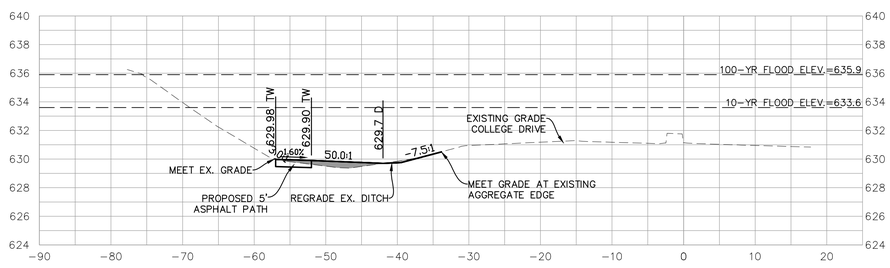


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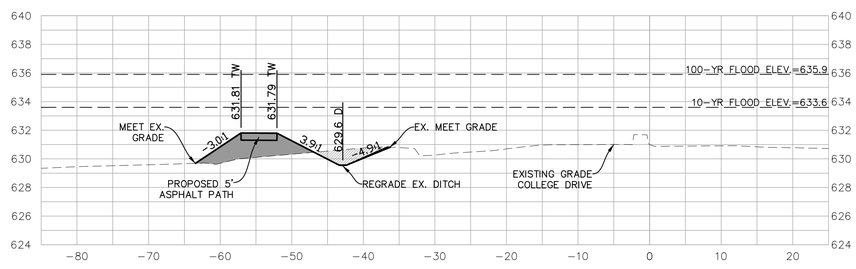


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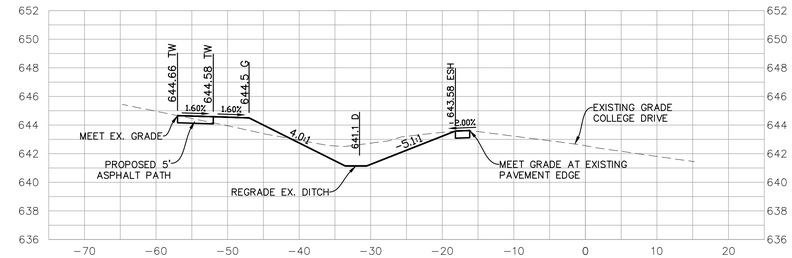


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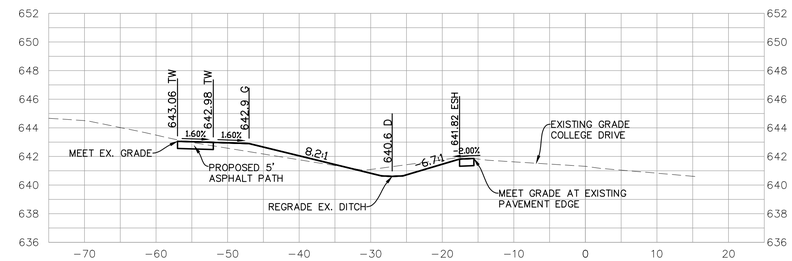


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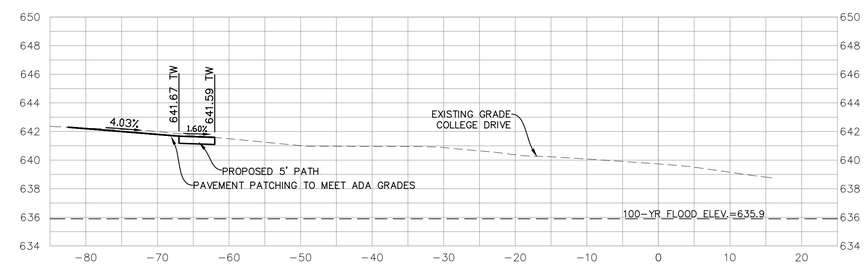


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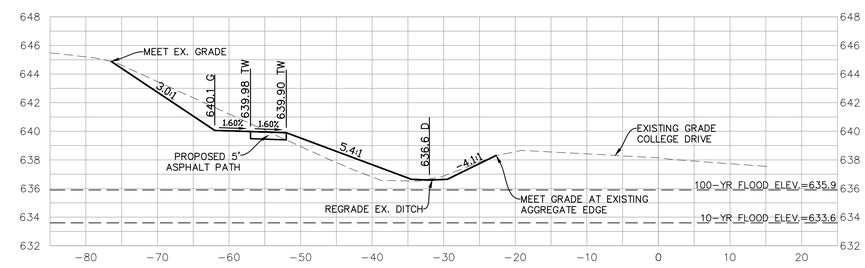


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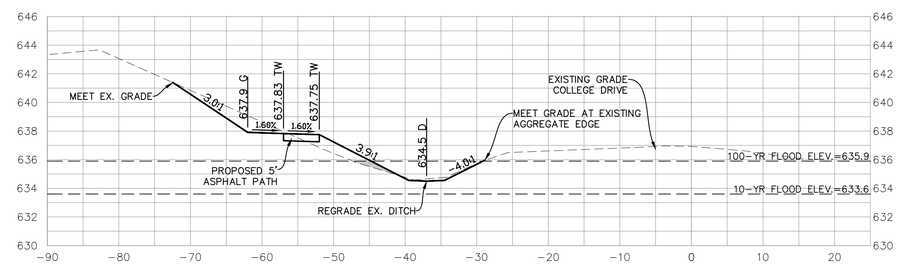


3+00

| DATE | REVISIONS | DRAWN BY |
|---|---|---|
| 12-23-22 | REVISED FOR BIDS | NBA |
| 11-10-21 | ISSUED FOR BIDS | NBA |


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PEDESTRIAN AND BICYCLE PATHWAY

OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS

CROSS-SECTIONS - STA.0+50 TO STA.5+00

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: AS
DATE: 05-04-21
SCALE: H:1"=10',V:1"=5'

SHEET 19 OF 30

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ISSUED FOR BID

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December 16, 2022 – 13:07 Dwg Name: p:\occdpil10\dwg\Dwg\final drawings\Plan Set\19-24-CROSS-SECTIONS.dwg Updated By: Wilson

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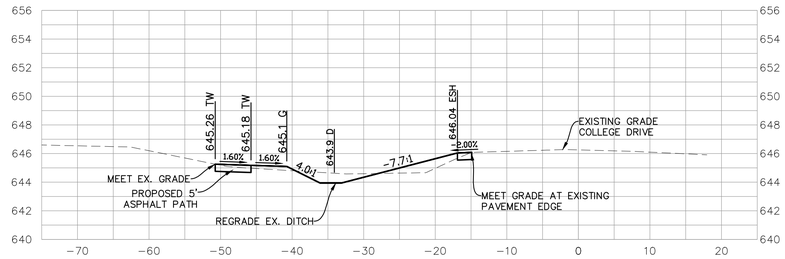
- 10-YR FILL
- 10-YR CUT
- 100-YR FILL
- 100-YR CUT

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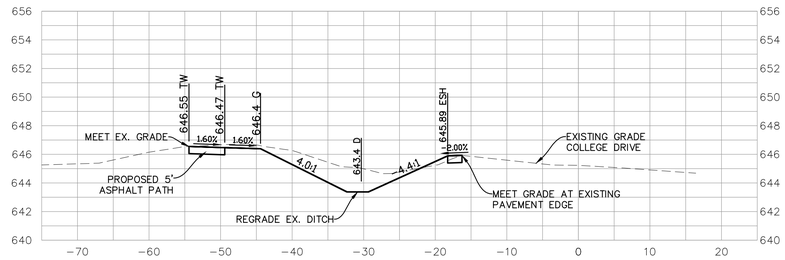


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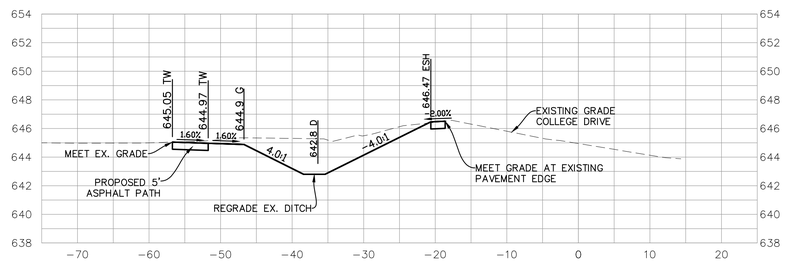


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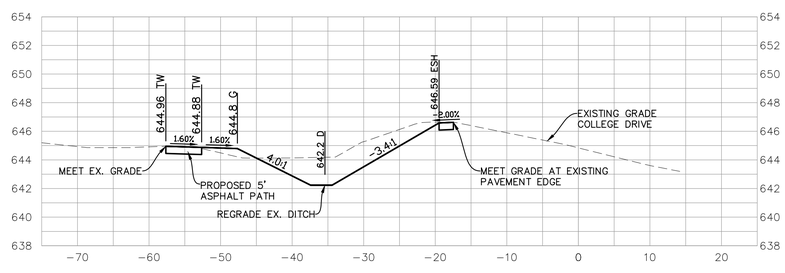


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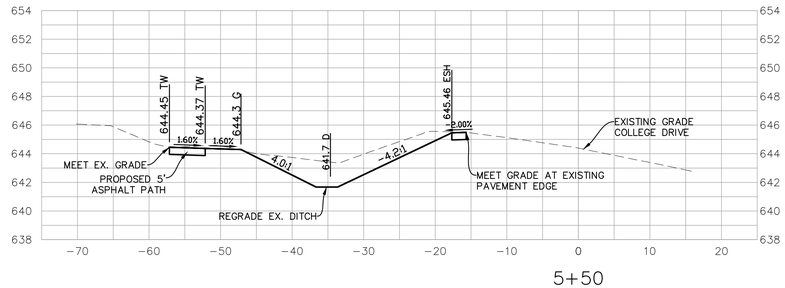


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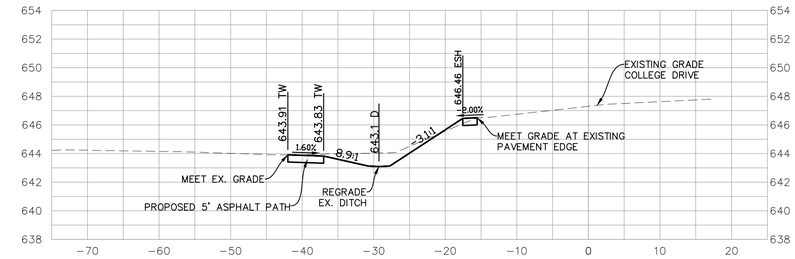


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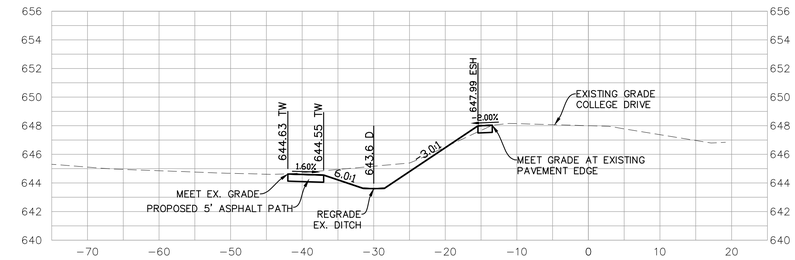


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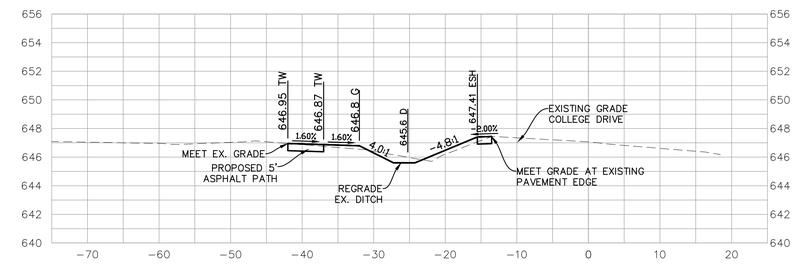


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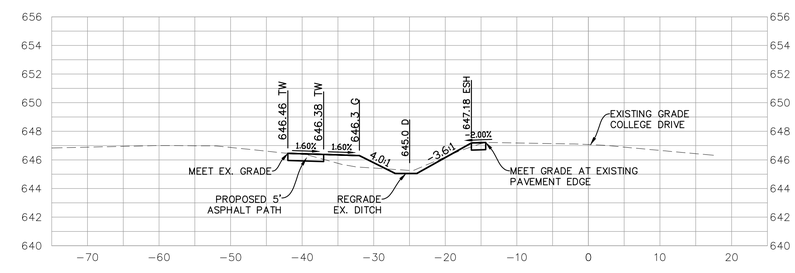


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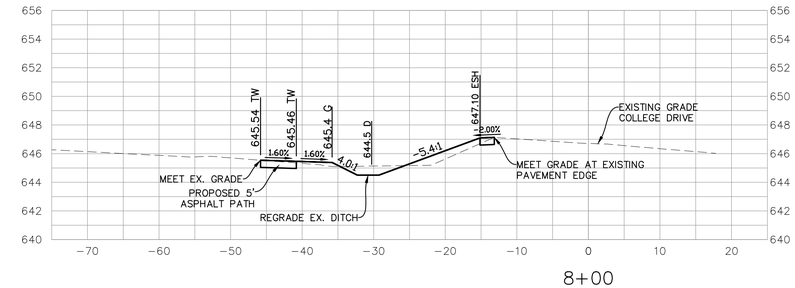


8+00

| DATE | REVISIONS | DRAWN BY |
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| 11-10-21 | ISSUED FOR BIDS | NBA |


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PEDESTRIAN AND BICYCLE PATHWAY

OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS

CROSS-SECTIONS - STA.5+50 TO STA.10+00

| | |
|---|---|
| PROJ. MGR.: | DBM |
| PROJ. ASSOC.: | JWS |
| DRAWN BY: | AS |
| DATE: | 05-04-21 |
| SCALE: | H:1"=10',V:1"=5' |

SHEET 20 OF 30

OCCDPIL10

ISSUED FOR BID

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December 16, 2022 - 13:07 Dwg Name: p:\occdpil10\dwg\Civil\Final drawings\Prop Set\19-24-CROSS-SECTIONS.dwg Updated By: Wilson

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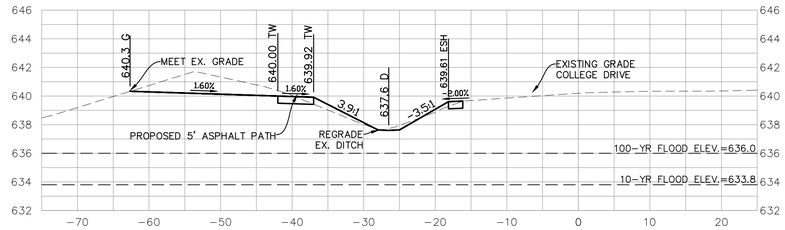
- 10-YR CUT
- 100-YR FILL
- 100-YR CUT

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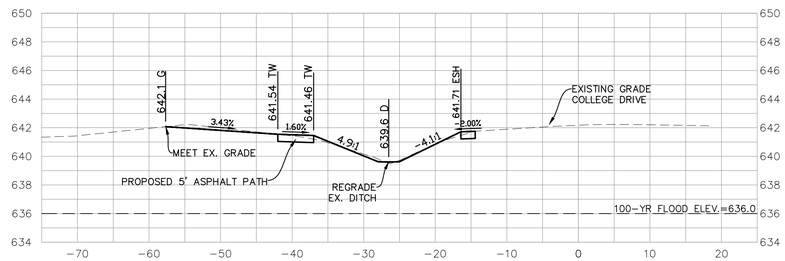


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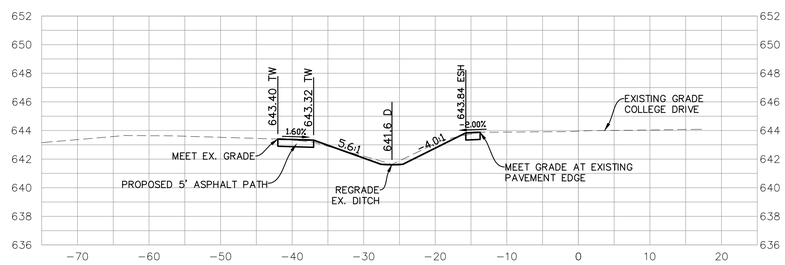


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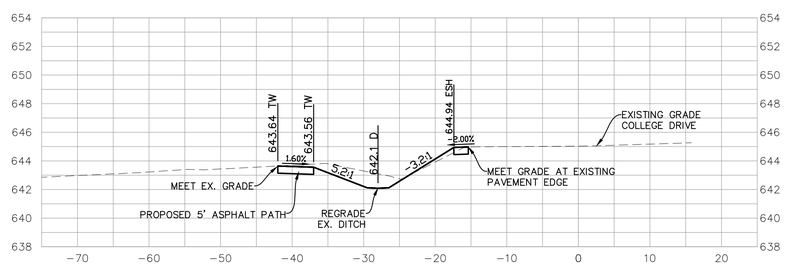


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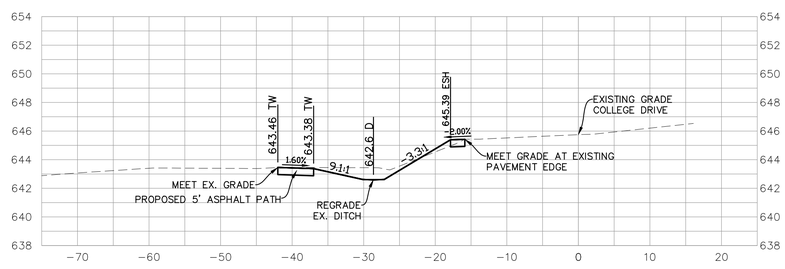


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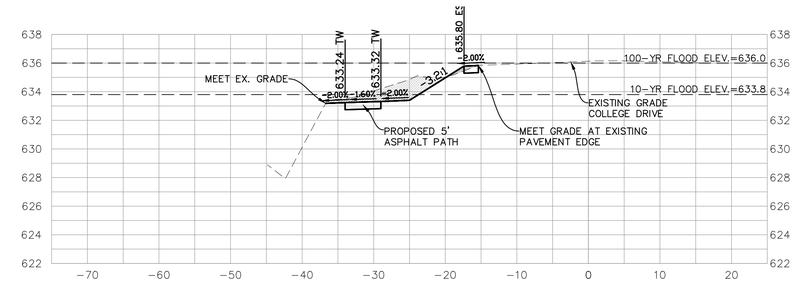


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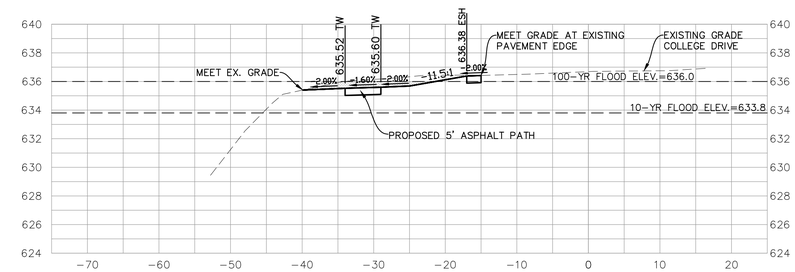


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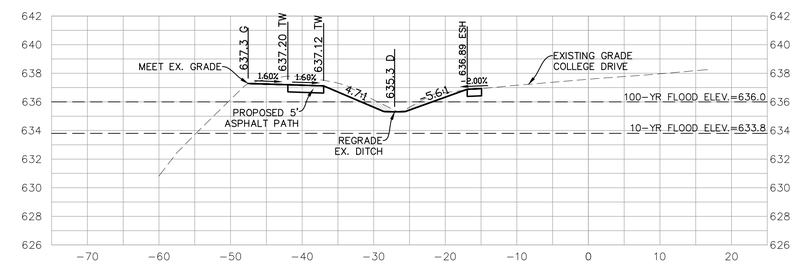


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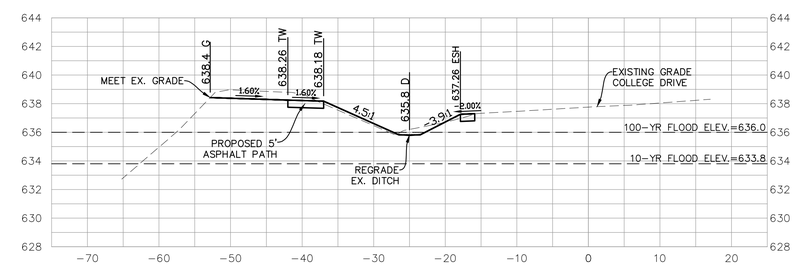


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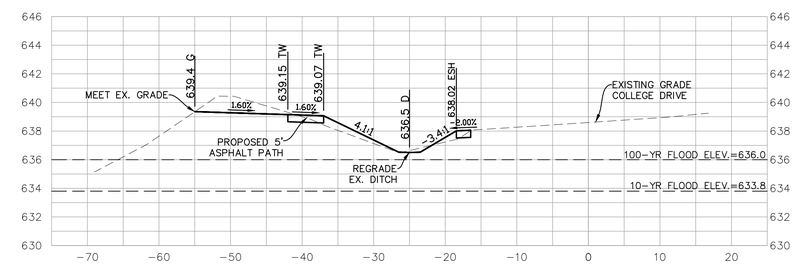


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| DATE | REVISIONS | DRAWN BY |
|---|---|---|
| 12-23-22 | REVISED FOR BIDS | NBA |
| 01-19-22 | REVISED FOR METAL CABLE GAURDRAIL | NBA |
| 11-10-21 | ISSUED FOR BIDS | NBA |


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# PEDESTRIAN AND BICYCLE PATHWAY

## OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS

## CROSS-SECTIONS - STA.10+50 TO STA.15+00

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: AS
DATE: 05-04-21
SCALE: H:1"=10',V:1"=5'

SHEET 21 OF 30

OCCDPIL10

ISSUED FOR BID

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December 16, 2022 – 13:07 Dwg Name: p:\occdpil10\dwg\Eng\final drawings\Plan Set\19-24-CROSS-SECTIONS.dwg Updated By: Wilson

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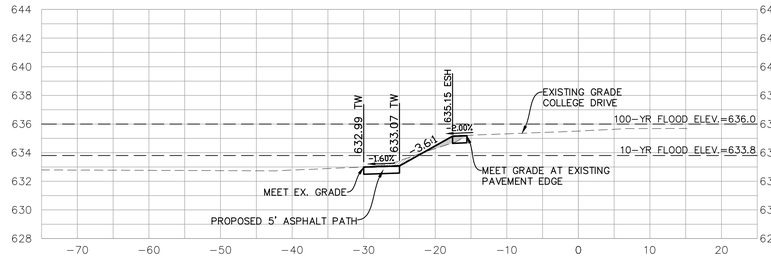
- 10-YR CUT
- 100-YR FILL
- 100-YR CUT

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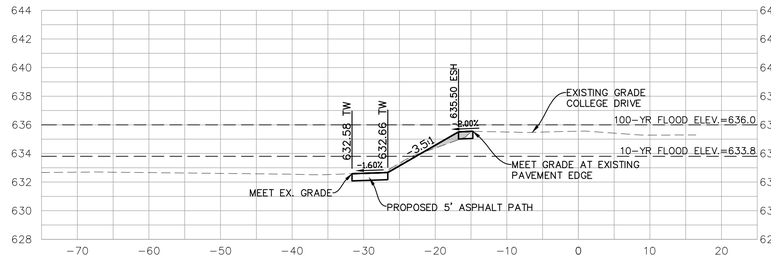


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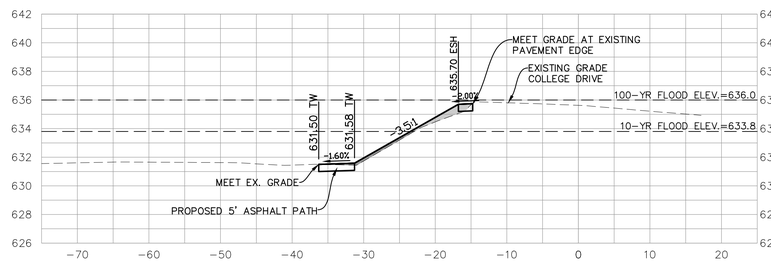


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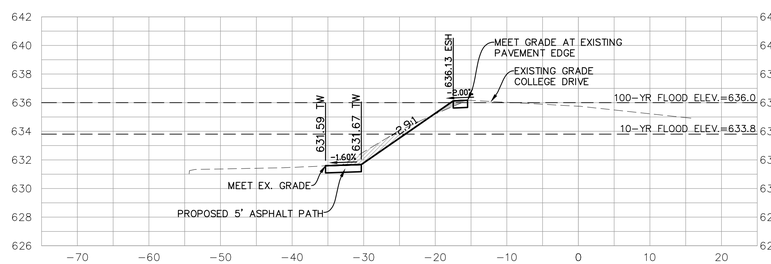


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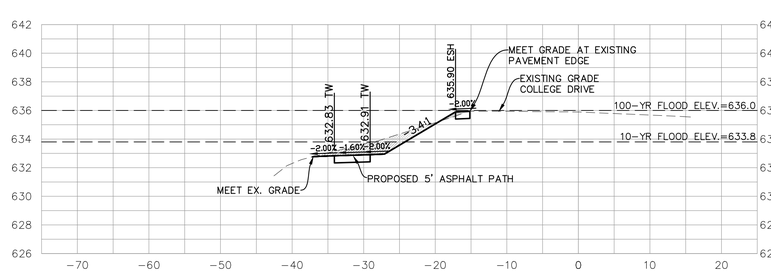


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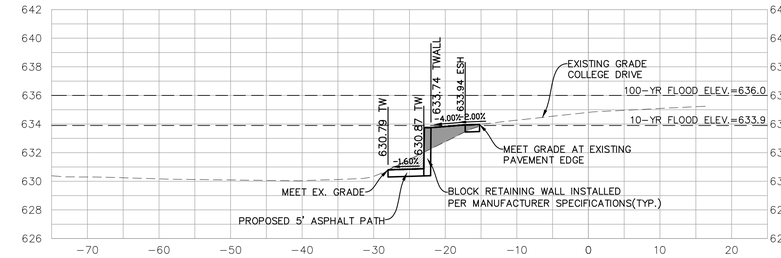


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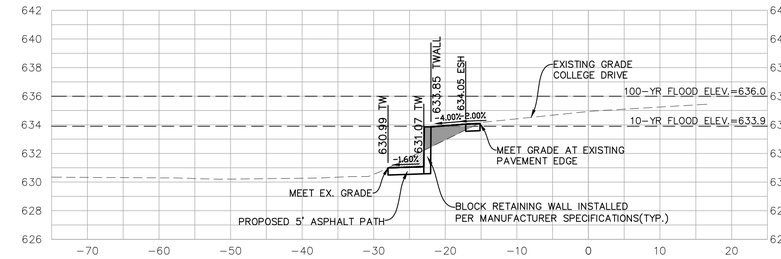


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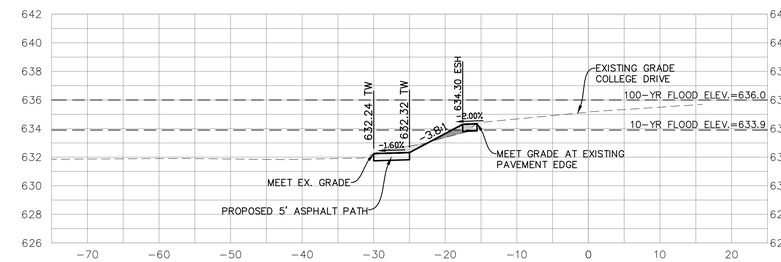


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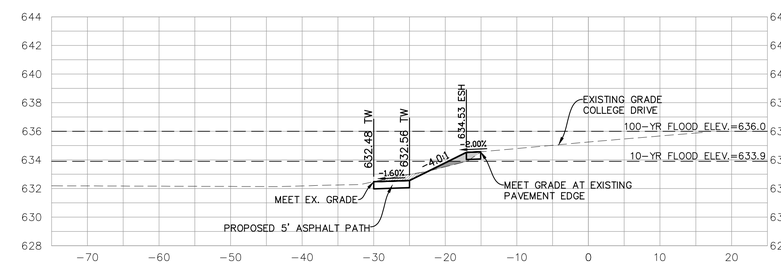


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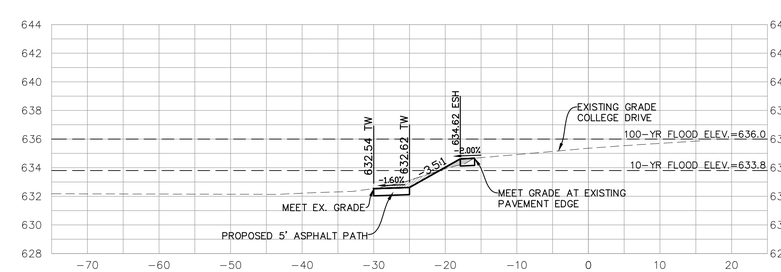


18+00

| DATE | REVISIONS | DRAWN BY |
|---|---|---|
| 01-19-22 | REVISED FOR METAL CABLE GAURDRAIL | NBA |


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PEDESTRIAN AND BICYCLE PATHWAY

OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS

CROSS-SECTIONS - STA.15+50 TO STA.20+00

| | |
|---|---|
| PROJ. MGR.: | DBM |
| PROJ. ASSOC.: | JWS |
| DRAWN BY: | AS |
| DATE: | 05-04-21 |
| SCALE: | H:1"=10',V:1"=5' |

SHEET 22 OF 30

OCCDPIL10

ISSUED FOR BID

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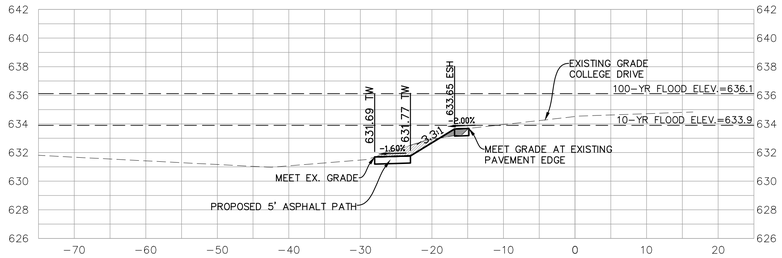
LEGEND

- 10-YR FILL
- 10-YR CUT
- 100-YR FILL
- 100-YR CUT

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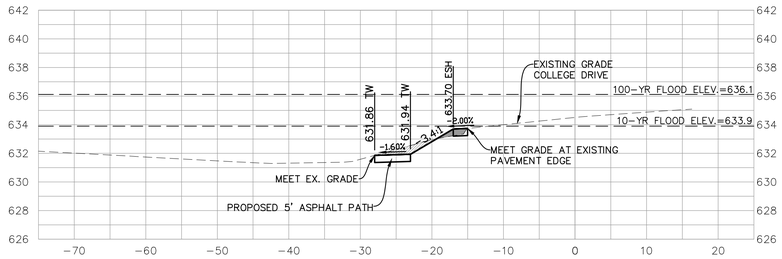


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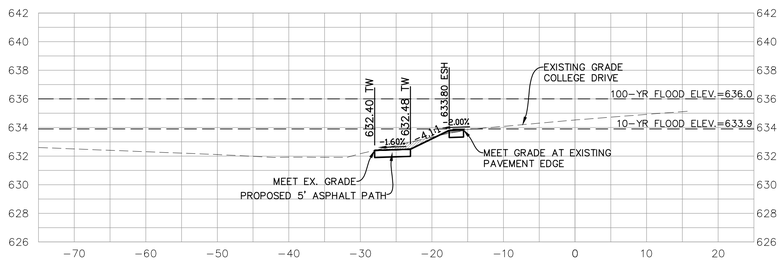


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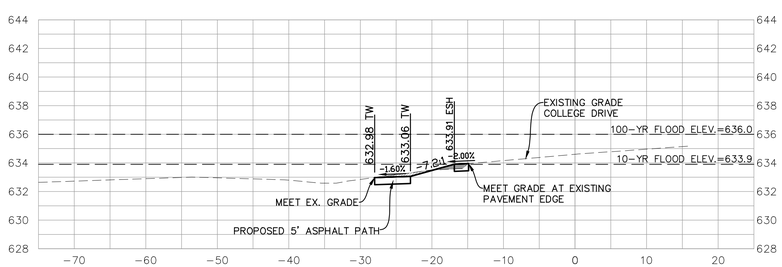


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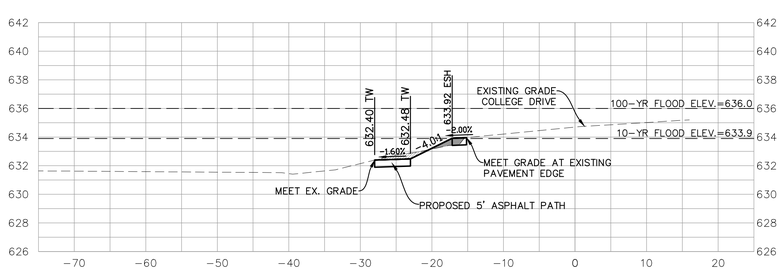


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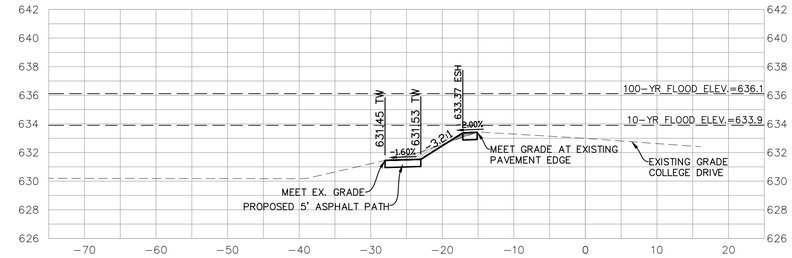


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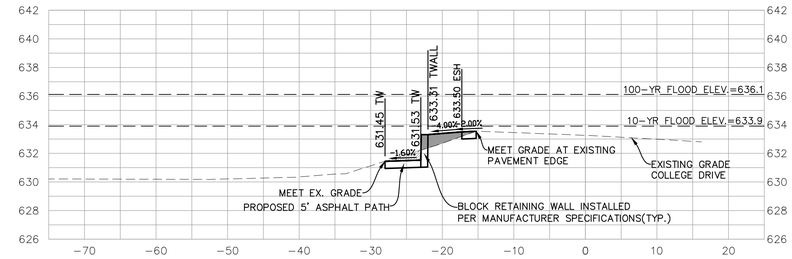


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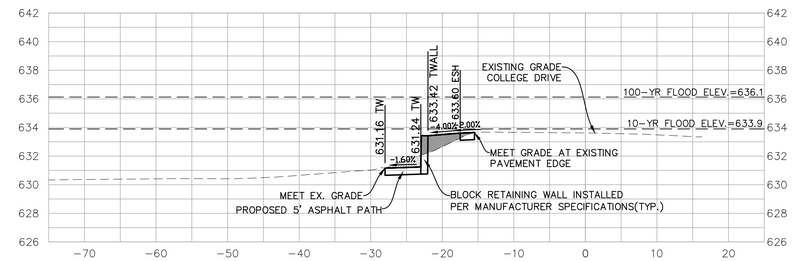


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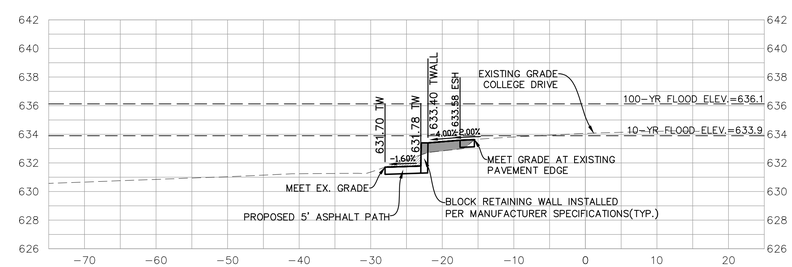


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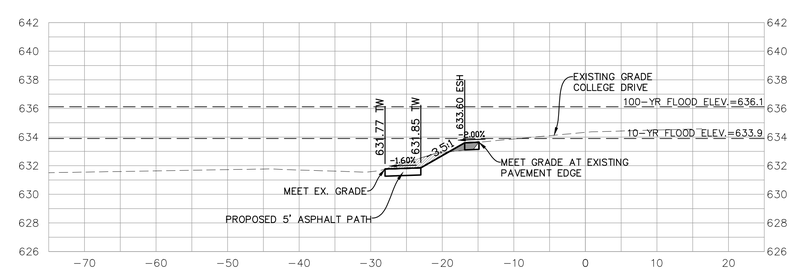


23+00

| DATE | REVISIONS | DRAWN BY |
|---|---|---|
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| - | - | - |
| - | - | - |
| 11-10-21 | ISSUED FOR BIDS | NBA |


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OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS

CROSS-SECTIONS - STA.20+50 TO STA.25+00

| | |
|---|---|
| PROJ. MGR.: | DBM |
| PROJ. ASSOC.: | JWS |
| DRAWN BY: | AS |
| DATE: | 05-04-21 |
| SCALE: | H:1"=10',V:1"=5' |

SHEET 23 OF 30

OCCDPIL10

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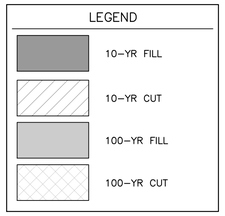


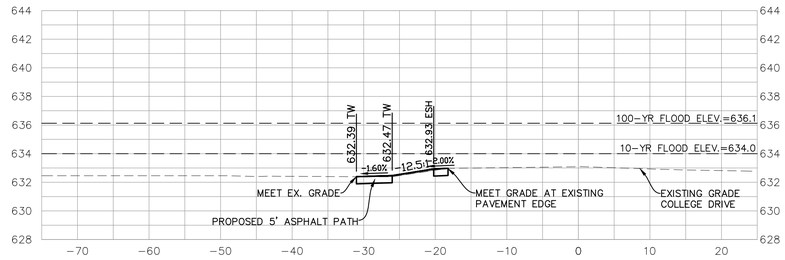


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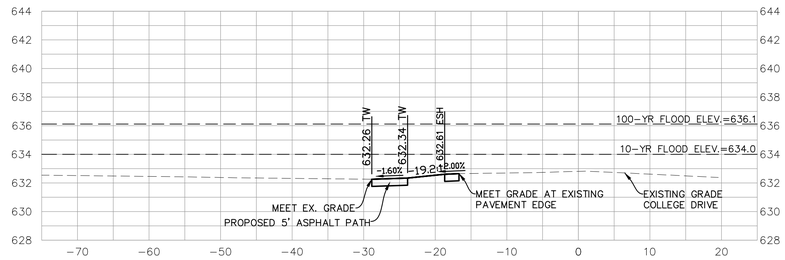


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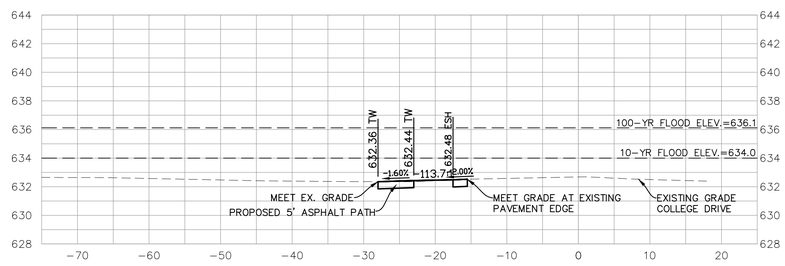


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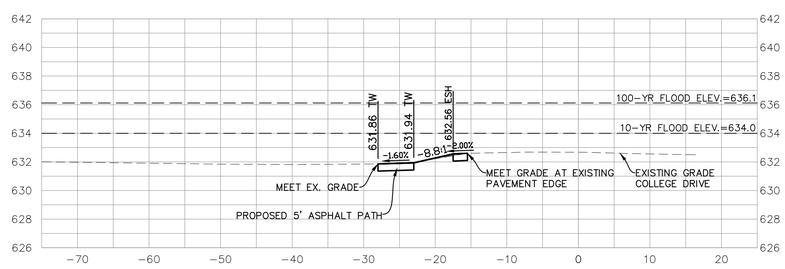


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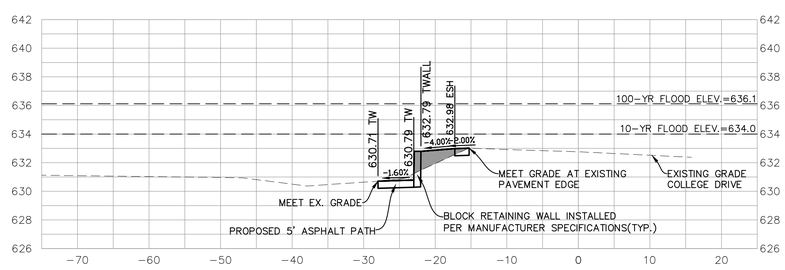



25+50

Manhard CONSULTING

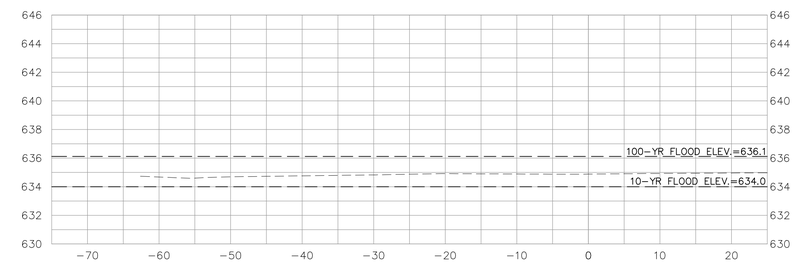
10-YEAR THRU 100-YEAR FLOOD CUT/FILL VOLUME TABLE
OAKTON COMMUNITY COLLEGE
DES PLAINES, ILLINOIS
1/11/2022

| STATION | 100-YEAR FILL AREA (SF) | AVERAGE 100-YEAR FILL AREA (SF) | VOLUME OF 100-YEAR FILL (CF) | 100-YEAR CUT AREA (SF) | AVERAGE 100-YEAR CUT AREA (SF) | VOLUME OF 100-YEAR CUT (CF) |
|---|---|---|---|---|---|---|
| 0+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1+50.00 | 0 | 0 | 0 | 1 | 0 | 13 |
| 2+00.00 | 0 | 0 | 0 | 0 | 1 | 26 |
| 2+50.00 | 4 | 2 | 111 | 0 | 0 | 22 |
| 3+00.00 | 1 | 3 | 145 | 1 | 1 | 43 |
| 3+50.00 | 0 | 1 | 14 | 0 | 1 | 33 |
| 4+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13+50.00 | 0 | 0 | 1 | 1 | 0 | 18 |
| 14+00.00 | 0 | 0 | 1 | 2 | 1 | 68 |
| 14+50.00 | 0 | 0 | 0 | 6 | 4 | 192 |
| 15+00.00 | 1 | 0 | 19 | 7 | 6 | 833 |
| 15+50.00 | 1 | 1 | 36 | 3 | 5 | 259 |
| 16+00.00 | 1 | 1 | 40 | 1 | 2 | 108 |
| 16+50.00 | 3 | 2 | 96 | 0 | 1 | 31 |
| 17+00.00 | 2 | 2 | 123 | 0 | 0 | 2 |
| 17+50.00 | 1 | 2 | 86 | 0 | 0 | 3 |
| 18+00.00 | 1 | 1 | 63 | 0 | 0 | 1 |
| 18+50.00 | 1 | 1 | 64 | 0 | 0 | 0 |
| 19+00.00 | 1 | 1 | 59 | 0 | 0 | 0 |
| 19+50.00 | 0 | 1 | 29 | 0 | 0 | 0 |
| 20+00.00 | 0 | 0 | 10 | 0 | 0 | 0 |
| 20+50.00 | 0 | 0 | 5 | 0 | 0 | 0 |
| 21+00.00 | 0 | 0 | 3 | 0 | 0 | 0 |
| 21+50.00 | 0 | 0 | 1 | 0 | 0 | 0 |
| 22+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 22+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 23+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 25+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 25+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 26+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 26+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 27+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 27+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 28+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 28+50.00 | 0 | 0 | 0 | 0 | 0 | 4 |
| 29+00.00 | 0 | 0 | 0 | 0 | 0 | 4 |
| TOTAL FILL (CF) = | | | 927 | TOTAL CUT (CF) = | | 1150 |
| COMP. STORAGE REQUIRED = 1.1* FILL (CF) = | | | 1020 | | | |
| TOTAL FILL (AC-FT) = | | | 0.02 | TOTAL CUT (AC-FT) = | | 0.03 |
| COMP. STORAGE REQUIRED = 1.1* FILL (AC-FT) = | | | 0.02 | | | |

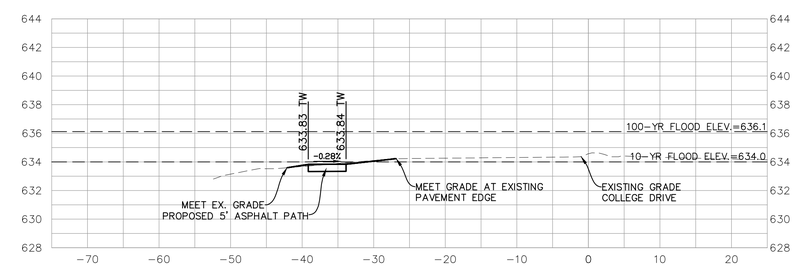
Manhard CONSULTING

5-YEAR THRU 10-YEAR FLOOD CUT/FILL VOLUME TABLE
OAKTON COMMUNITY COLLEGE
DES PLAINES, ILLINOIS
1/11/2022

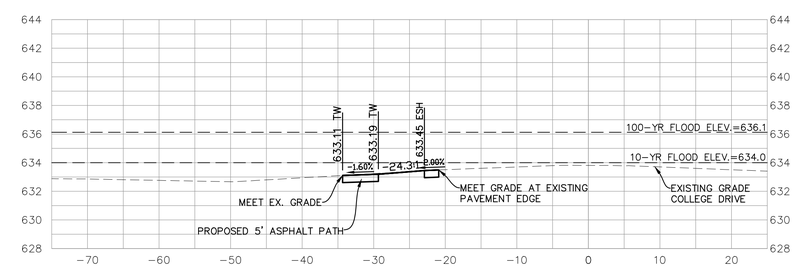
| STATION | 10-YEAR FILL AREA (SF) | AVERAGE 10-YEAR FILL AREA (SF) | VOLUME OF 10-YEAR FILL (CF) | 10-YEAR CUT AREA (SF) | AVERAGE 10-YEAR CUT AREA | VOLUME OF 10-YEAR CUT (CF) |
|---|---|---|---|---|---|---|
| 0+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0+50.00 | 19 | 9 | 469 | 7 | 3 | 163 |
| 1+00.00 | 4 | 11 | 562 | 0 | 3 | 172 |
| 1+50.00 | 0 | 2 | 94 | 16 | 8 | 398 |
| 2+00.00 | 2 | 1 | 58 | 3 | 10 | 477 |
| 2+50.00 | 4 | 3 | 166 | 1 | 2 | 123 |
| 3+00.00 | 0 | 2 | 111 | 0 | 1 | 14 |
| 3+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14+00.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14+50.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15+00.00 | 0 | 0 | 0 | 5 | 2 | 123 |
| 15+50.00 | 0 | 0 | 0 | 6 | 6 | 279 |
| 16+00.00 | 0 | 0 | 0 | 5 | 5 | 275 |
| 16+50.00 | 2 | 1 | 44 | 0 | 2 | 117 |
| 17+00.00 | 0 | 1 | 44 | 1 | 0 | 20 |
| 17+50.00 | 0 | 0 | 0 | 1 | 1 | 49 |
| 18+00.00 | 0 | 0 | 0 | 2 | 2 | 83 |
| 18+50.00 | 1 | 0 | 21 | 2 | 2 | 66 |
| 19+00.00 | 1 | 1 | 51 | 2 | 2 | 88 |
| 19+50.00 | 3 | 2 | 112 | 3 | 2 | 117 |
| 20+00.00 | 4 | 4 | 175 | 3 | 3 | 145 |
| 20+50.00 | 1 | 3 | 127 | 2 | 2 | 116 |
| 21+00.00 | 1 | 1 | 56 | 1 | 1 | 69 |
| 21+50.00 | 0 | 1 | 33 | 2 | 2 | 82 |
| 22+00.00 | 1 | 1 | 41 | 3 | 2 | 123 |
| 22+50.00 | 1 | 1 | 58 | 4 | 3 | 155 |
| 23+00.00 | 1 | 1 | 61 | 3 | 3 | 170 |
| 23+50.00 | 6 | 3 | 174 | 2 | 3 | 130 |
| 24+00.00 | 5 | 5 | 253 | 2 | 2 | 130 |
| 24+50.00 | 5 | 5 | 240 | 2 | 2 | 95 |
| 25+00.00 | 1 | 3 | 143 | 2 | 2 | 98 |
| 25+50.00 | 6 | 3 | 163 | 1 | 1 | 69 |
| 26+00.00 | 1 | 3 | 160 | 0 | 0 | 16 |
| 26+50.00 | 0 | 0 | 23 | 0 | 0 | 1 |
| 27+00.00 | 0 | 0 | 14 | 0 | 0 | 1 |
| 27+50.00 | 1 | 0 | 25 | 0 | 0 | 1 |
| 28+00.00 | 0 | 0 | 21 | 0 | 0 | 8 |
| 28+50.00 | 0 | 0 | 8 | 0 | 0 | 16 |
| 29+00.00 | 0 | 0 | 7 | 0 | 0 | 8 |
| TOTAL FILL (CF) = | | | 3536 | TOTAL CUT (CF) = | | 4813 |
| COMP. STORAGE REQUIRED = 1.1* FILL (CF) = | | | 3887 | | | |
| TOTAL FILL (AC-FT) = | | | 0.08 | TOTAL CUT (AC-FT) = | | 0.09 |
| COMP. STORAGE REQUIRED = 1.1* FILL (AC-FT) = | | | 0.09 | | | |




29+00




28+50




28+00

| DATE | REVISIONS | DRAWN BY |
|---|---|---|
| - | - | - |
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| - | - | - |
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| - | - | - |
| - | - | - |
| - | - | - |
| 11-10-20 | ISSUED FOR BIDS | NBA |

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PEDESTRIAN AND BICYCLE PATHWAY
OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS
CROSS-SECTIONS - STA.25+50 TO STA.29+00

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: AS
DATE: 05-04-21
SCALE: H:1"=10',V:1"=5'

SHEET 24 OF 30
OCCDPIL10

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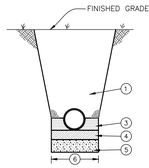
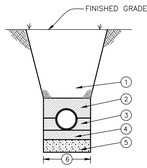



**RIGID PIPE**
CONCRETE PIPE
VITRIFIED CLAY PIPE
DUCTILE IRON PIPE
STEEL PIPE



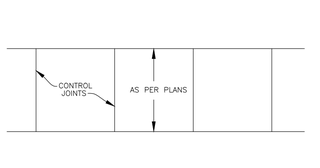

**FLEXIBLE PIPE**
POLYVINYL CHLORIDE (PVC) PIPE
COMPOSITE SEWER PIPE
HIGH DENSITY POLYETHYLENE (HDPE) PIPE
CORRUGATED METAL PIPE

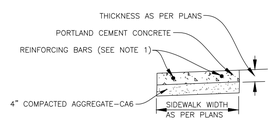
1. MECHANICALLY COMPACTED SELECTED GRANULAR BACKFILL IN 6 INCH LIFTS UNDER OR WITHIN 2 FEET OF ANY PAVEMENT, CURB & GUTTER OR SIDEWALK. MACHINE COMPACTION OF EXCAVATED MATERIAL IN OTHER LOCATIONS WHERE SUITABLE.
2. MECHANICALLY COMPACTED SELECTED GRANULAR BACKFILL IN 6 INCH LIFTS TO 12" ABOVE TOP OF PIPE.
3. RIGID PIPE:
   WELL-COMPACTED HAUNCHING MATERIAL PLACED IN MAXIMUM 6 INCH LIFTS TO SPRING LINE OF PIPE
   FLEXIBLE PIPE:
   WELL-COMPACTED HAUNCHING MATERIAL PLACED IN MAXIMUM 6 INCH LIFTS TO SPRING LINE OF PIPE.
4. 4" WELL-COMPACTED BEDDING MATERIAL
5. UNSUITABLE MATERIAL TO BE REMOVED AND REPLACED WITH GRANULAR FOUNDATION MATERIAL WHERE SOIL CONDITIONS WARRANT
6. TRENCH WIDTH:
   TRENCH DEPTH OF 5 FEET AND LESS, WITHOUT PROTECTION
   OUTSIDE DIAMETER + 12 INCHES ON EACH SIDE OF THE PIPE.
   TRENCH DEPTH OF 5 FEET AND LESS, WITH PROTECTION
   OUTSIDE DIAMETER + 18 INCHES ON EACH SIDE OF THE PIPE.
   TRENCH DEPTH OF GREATER THAN 5 FEET
   OUTSIDE DIAMETER + 18 INCHES ON EACH SIDE OF THE PIPE.

06-01-15

## PIPE INSTALLATION DETAIL

S:\MS\PIPEINSTALL



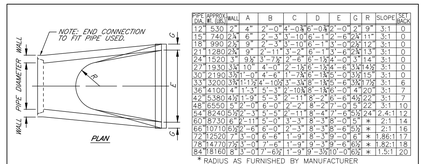




NOTES:
1. AT ALL TRENCH CROSSINGS, 2-#4 REFORMED REINFORCING BARS (10' LONG) SHALL BE PLACED OVER THE TRENCH.
2. CONCRETE THICKNESS SHALL BE 6" ACROSS DRIVEWAYS AND TRENCH CROSSINGS.
3. 3/4" EXPANSION JOINTS SHALL BE CONSTRUCTED AT A MAXIMUM SPACING OF 50'.
4. CONTROL JOINTS SHALL BE SPACED THE SAME AS THE SIDEWALK WIDTH AND 1/4" IN DEPTH.

09-30-2020

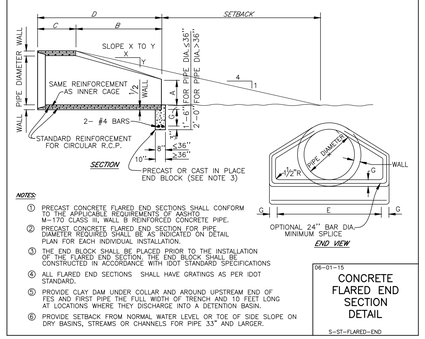
## SIDEWALK DETAIL

OCCDPIL10




| PIPE DIAMETER | WALL | A | B | C | D | E | G | R | SLOPE | SETBACK |
|---|---|---|---|---|---|---|---|---|---|---|
| DIA. IN | DIA. IN | FT-IN | FT-IN | FT-IN | FT-IN | FT-IN | FT-IN | FT-IN | X:Y | INCH |
| 12 | 3.50 | 3'-4" | 2'-0" | 4'-0" | 3'-8" | 6'-0" | 2'-0" | 9' | 3:1 | 0 |
| 15 | 3.60 | 3'-6" | 2'-3" | 4'-3" | 3'-10" | 6'-1" | 2'-0" | 9' | 3:1 | 0 |
| 18 | 3.90 | 3'-9" | 2'-6" | 4'-6" | 3'-11" | 6'-2" | 2'-0" | 9' | 3:1 | 0 |
| 21 | 4.80 | 3'-9" | 2'-9" | 4'-9" | 3'-11" | 6'-2" | 2'-0" | 9' | 3:1 | 0 |
| 24 | 5.20 | 3'-9" | 3'-3" | 5'-3" | 3'-8" | 6'-10" | 2'-0" | 9' | 3:1 | 0 |
| 27 | 5.90 | 3'-10" | 4'-0" | 5'-9" | 3'-7" | 7'-4" | 2'-0" | 9' | 3:1 | 0 |
| 30 | 7.29 | 3'-10" | 4'-6" | 6'-1" | 3'-6" | 7'-8" | 2'-0" | 9' | 3:1 | 0 |
| 33 | 7.92 | 3'-11" | 5'-0" | 6'-6" | 3'-6" | 8'-0" | 2'-0" | 9' | 3:1 | 0 |
| 36 | 8.00 | 4'-1" | 5'-3" | 6'-9" | 3'-10" | 8'-5" | 2'-0" | 9' | 4:1 | 0 |
| 42 | 9.54 | 4'-3" | 6'-0" | 7'-9" | 4'-0" | 9'-2" | 2'-0" | 9' | 4:1 | 0 |
| 48 | 9.55 | 5'-0" | 6'-9" | 8'-0" | 4'-2" | 9'-8" | 2'-0" | 9' | 4:1 | 10 |
| 54 | 10.40 | 5'-6" | 7'-3" | 8'-9" | 4'-3" | 10'-3" | 2'-0" | 9' | 4:1 | 12 |
| 60 | 11.87 | 6'-1" | 7'-9" | 9'-3" | 4'-5" | 10'-8" | 2'-0" | 9' | 4:1 | 14 |
| 66 | 12.71 | 6'-5" | 8'-3" | 9'-9" | 4'-6" | 11'-2" | 2'-0" | 9' | 4:1 | 16 |
| 72 | 12.50 | 7'-0" | 8'-9" | 10'-3" | 4'-7" | 11'-6" | 2'-0" | 9' | 4:1 | 17 |
| 78 | 14.77 | 7'-5" | 9'-3" | 10'-9" | 4'-8" | 12'-0" | 2'-0" | 9' | 4:1 | 18 |
| 84 | 16.61 | 8'-0" | 9'-11" | 11'-3" | 4'-9" | 12'-5" | 2'-0" | 9' | 4:1 | 20 |

* RADIUS AS FURNISHED BY MANUFACTURER

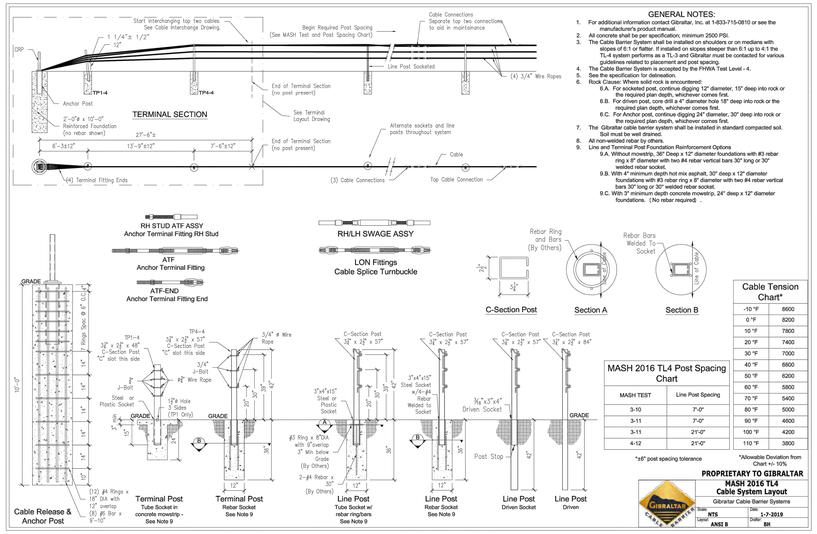



NOTES:
1. PRECAST CONCRETE FLARED END SECTIONS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-170 CLASS III, WALL B REINFORCED CONCRETE PIPE.
2. PRECAST CONCRETE FLARED END SECTIONS FOR PIPE DIAMETER GREATER THAN 36" SHALL BE DESIGNED ON DETAIL PLAN FOR EACH INDIVIDUAL INSTALLATION.
3. THE END BLOCK SHALL BE PLACED PRIOR TO THE INSTALLATION OF THE FLARED END SECTION. THE END BLOCK SHALL BE CONSTRUCTED IN ACCORDANCE WITH IDOT STANDARD SPECIFICATIONS
4. ALL FLARED END SECTIONS SHALL HAVE GRATINGS AS PER IDOT STANDARD.
5. PROVIDE CLAY DAM UNDER COLLAR AND AROUND UPSTREAM END OF FES AND FIRST PIPE THE FULL WIDTH OF TRENCH AND 10 FEET LONG AT LOCATIONS WHERE THEY DISCHARGE INTO A DETENTION BASIN.
6. PROVIDE SETBACK FROM NORMAL WATER LEVEL OR TOE OF SIDE SLOPE ON DRY BASINS, STREAMS OR CHANNELS FOR PIPE 33" AND LARGER.

06-01-15

## CONCRETE FLARED END SECTION DETAIL

S:\ST\FLARED\END



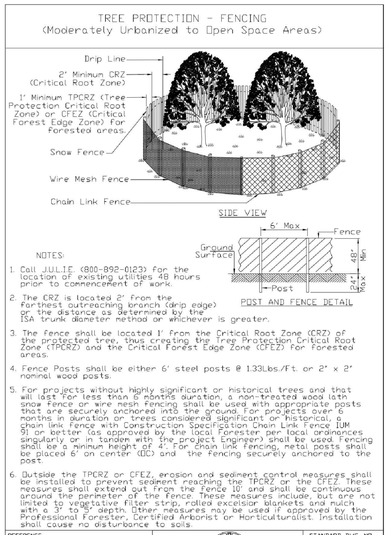

GENERAL NOTES:
1. For additional information contact Gibraltar, Inc. at 1-833-715-0810 or see the manufacturer's product manual.
2. All concrete shall be per specification, minimum 2500 PSI.
3. The Cable Barrier System shall be installed on shoulders or on medians with slopes of 6:1 or flatter. If installed on slopes steeper than 6:1 up to 4:1 the TL-4 system performs as a TL-3 and Gibraltar must be contacted for various guidelines related to placement and post spacing.
4. The Cable Barrier System is accepted by the FHWA Test Level - 4.
5. See the specification for delineation.
6. Rock Clause: Where solid rock is encountered:
   6.A. For socketed post, continue digging 24" diameter, 15" deep into rock or the required plan depth, whichever comes first.
   6.B. For driven post, core drill a 4" diameter hole 18" deep into rock or the required plan depth, whichever comes first.
   6.C. For Anchor post, continue digging 24" diameter, 30" deep into rock or the required plan depth, whichever comes first.
7. The Gibraltar Cable Barrier System shall be installed in standard compacted soil. Soil must be well drained.
8. All non-welded rebar by others.
9. Line and Terminal Post Foundation Reinforcement Options
   9.A. Without mowstrip, 36" Deep x 12" diameter foundations with #3 rebar ring x 8" diameter with two #4 rebar vertical bars 30" long or 30" welded rebar socket.
   9.B. With 4" minimum depth hot mix asphalt, 30" deep x 12" diameter foundations with #3 rebar ring x 8" diameter with two #4 rebar vertical bars 30" long or 30" welded rebar socket.
   9.C. With 3" minimum depth concrete mowstrip, 24" deep x 12" diameter foundations. (No rebar required.)

| Cable Tension Chart* | |
|---|---|
| -10 °F | 8600 |
| 0 °F | 8200 |
| 10 °F | 7800 |
| 20 °F | 7400 |
| 30 °F | 7000 |
| 40 °F | 6600 |
| 50 °F | 6200 |
| 60 °F | 5800 |
| 70 °F | 5400 |
| 80 °F | 5000 |
| 90 °F | 4600 |
| 100 °F | 4200 |
| 110 °F | 3800 |

*±6° post spacing tolerance
*Allowable Deviation from Chart +/- 10%

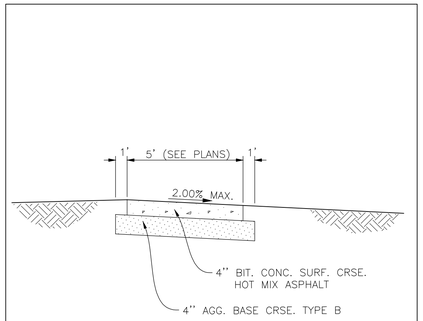
| MASH 2016 TL4 Post Spacing Chart | |
|---|---|
| MASH TEST | Line Post Spacing |
| 3-10 | 7'-0" |
| 3-11 | 7'-0" |
| 3-11 | 21'-0" |
| 4-12 | 21'-0" |

PROPRIETARY TO GIBRALTAR
MASH 2016 TL4
Cable System Layout
Gibraltar Cable Barrier Systems
Scale NTS | Date 1-7-2019
Layout ANSI B | Drafter BH




NOTES:
1. Call JULIE (800-892-0123) for the location of existing utilities 48 hours prior to commencement of work.
2. The CRZ is located 2' from the farthest outreaching branch (drip edge) or the distance as determined by the ISA trunk diameter method or whichever is greater.
3. The Fence shall be located 1' from the Critical Root Zone (CRZ) of the protected tree, thus creating the Tree Protection Critical Root Zone (TPCRZ) and the Critical Forest Edge Zone (CFEZ) for forested areas.
4. Fence Posts shall be either 6' steel posts @ 1.33Lbs./Ft. or 2" x 2" nominal wood posts.
5. For projects without highly significant or historical trees and that will last for less than 6 months duration, a non-treated wood lath snow fence or wire mesh fencing shall be used with appropriate posts that are securely anchored into the ground. For projects over 6 months in duration or trees considered significant or historical, a chain link fence with Construction Specification Chain Link Fence IUM 91 or better (as approved by the local Forester per local ordinances singularly or in tandem with the project Engineer) shall be used. Fencing shall be a minimum height of 4'. For chain link fencing, metal posts shall be placed 8' on center (OC) and the fencing securely anchored to the post.
6. Outside the TPCRZ or CFEZ, erosion and sediment control measures shall be installed to prevent sediment reaching the TPCRZ or the CFEZ. These measures shall extend out from the fence 10' and shall be continuous around the perimeter of the fence. These measures include, but are not limited to vegetative filter strip, rolled excelsior blankets and mulch with a 3" to 9" depth. Other measures may be used if approved by the Professional Forester, Certified Arborist or Horticulturalist. Installation shall cause no disturbance to soils.

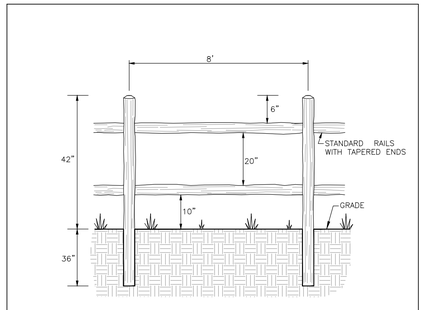
| REFERENCE | | STANDARD DWG. NO. |
|---|---|---|
| Project | | IUM-690-A |
| Designed | Date | SHEET 1 OF 1 |
| Checked | Date | DATE 09-14-2017 |
| Approved | Date | |




09-30-2020

## TYPICAL RECREATIONAL PATH DETAIL

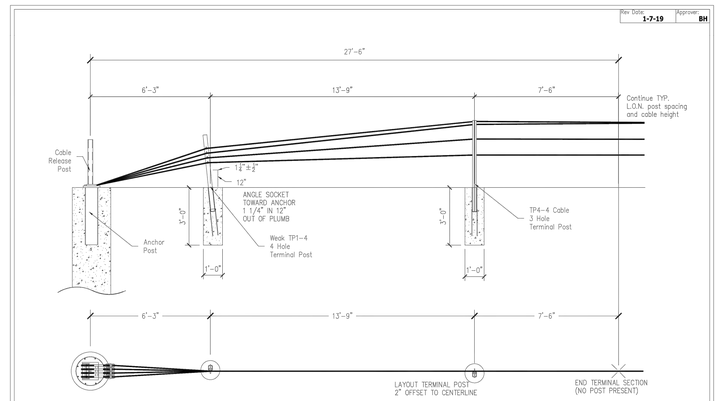
OCCDPIL10



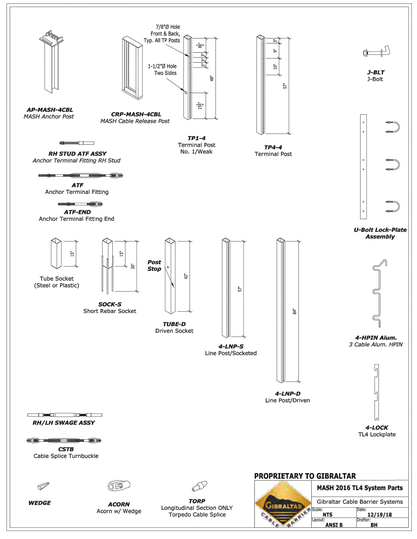

NOTES:
1. ALL NAILS AND HARDWARE TO BE HOT DIPPED GALVANIZED
2. POST HOLES SHALL BE DUG TO A MINIMUM DIAMETER OF 12". CA-6, CA-10 OR CA-12 AGGREGATE SHALL BE PLACED AROUND THE POST AND THOROUGHLY COMPACTED IN SIX-INCH LIFTS. THE TOP 4 INCHES OF THE POST HOLE SHALL BE TOPSOIL.

## SPLIT RAIL FENCE

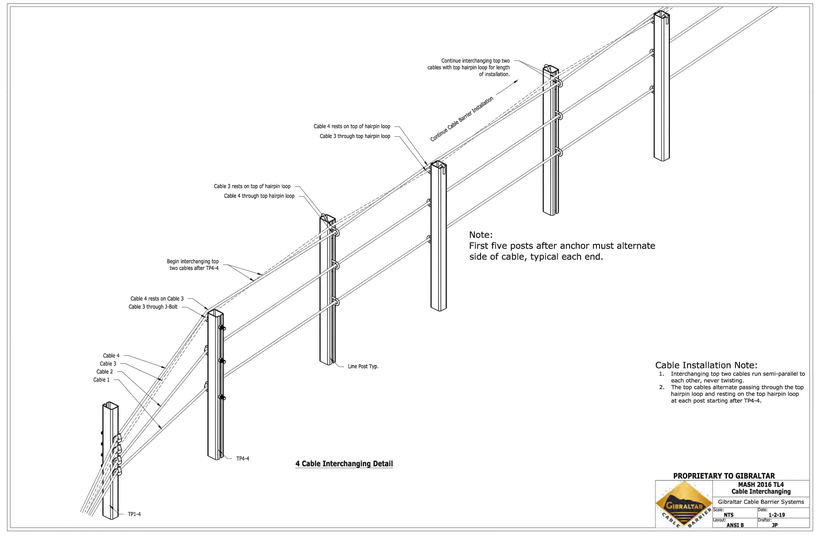
NOT TO SCALE




PROPRIETARY TO GIBRALTAR
MASH 2016 TL3
Mash Terminal Layout
Gibraltar Cable Barrier Systems
Scale NTS | Date 1-7-19
Layout ANSI B | Drafter BH




PROPRIETARY TO GIBRALTAR
MASH 2016 TL4 System Parts
Gibraltar Cable Barrier Systems
Scale NTS | Date 12/19/18
Layout ANSI B | Drafter BH




4 Cable Interchanging Detail

Cable Installation Note:
1. Interchanging top two cables run semi-parallel to each other, never twisting.
2. The top cables alternate passing through the top hairpin loop and resting on the top hairpin loop at each post starting after TP4-4.

PROPRIETARY TO GIBRALTAR
MASH 2016 TL4
Cable Interchanging
Gibraltar Cable Barrier Systems
Scale NTS | Date 1-2-19
Layout ANSI B | Drafter JP

ALL IDOT STANDARD AND DETAILS FOR CONSTRUCTION SHALL TAKE PRECEDENCE FOR WORK WITHIN THE STATE RIGHT OF WAY

SHOULD A CONFLICT ARISE BETWEEN MANHARD DETAILS AND THE VILLAGE OR IDOT DETAILS, THE VILLAGE OR IDOT DETAILS SHALL TAKE PRECEDENCE.

| DATE | REVISIONS | DRAWN BY |
|---|---|---|
| 01-19-22 | REVISED FOR METAL CABLE GAURDRAIL | NBA |
| 11-10-21 | ISSUED FOR BIDS | NBA |


Manhard CONSULTING LTD
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Civil Engineers • Water Resource Engineers • Water & Wastewater Engineers • Planners
Construction Managers • Environmental Scientists • Landscape Architects


# PEDESTRIAN AND BICYCLE PATHWAY
# OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS
# CONSTRUCTION DETAILS

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: REH
DATE: 05-04-21
SCALE: N.T.S.

SHEET 25 OF 30
OCCDPIL10

ISSUED FOR BID

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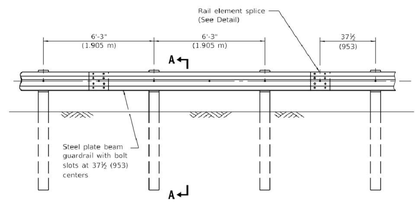
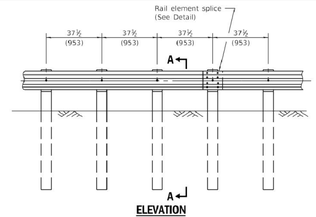
January 10, 2022 - 16:23 Dwg Name: p:\occdpil10\dwg\Cad\final drawings\Prop Set\25-DETAILS.dwg Updated By: ASanchez




**ELEVATION**

**TYPE A**

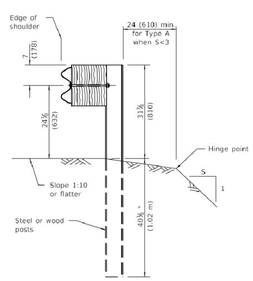
6'-3" (1.905 m) Typical post spacing




**ELEVATION**

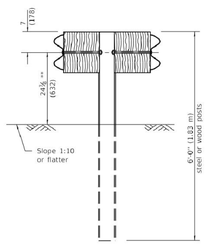
**TYPE B**

37½ (953) Closed post spacing



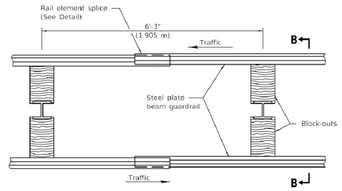

**SECTION A-A**

* When "S" is less than 2 and the distance from the back of post is less than 24 (610), the post shall be steel and the embedment shall be 76⅝ (1.93 m) and the minimum top of rail height shall be 31 (787).




**SECTION B-B**

** When connecting Type D guardrail to an impact attenuator, adjust this dimension to match over a distance of 25'-0" (7.62 m) from point of connection if necessary.




**PLAN**

**TYPE D**

Double steel plate beam guardrail
6'-3" (1.905 m) typical post spacing

**GENERAL NOTES**

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

All dimensions are in inches (millimeters) unless otherwise shown.

| DATE | REVISIONS |
|---|---|
| 1-1-18 | Revised steel post to have |
| | four holes in each flange. |
| | |
| 1-1-17 | Added detail for leave-out. |
| | Rev. 'D' to less than 6 (150) |
| | for guardrail behind curb. |

Illinois Department of Transportation

APPROVED January 1, 2018 — ENGINEER OF POLICY AND PROCEDURES

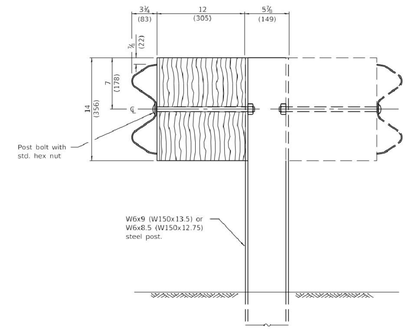
APPROVED January 1, 2018 — ENGINEER OF DESIGN AND ENVIRONMENT

BUREAU OF ROADWAY STANDARDS

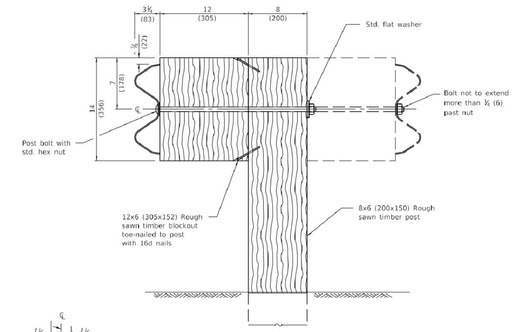
**STEEL PLATE BEAM GUARDRAIL**

(Sheet 1 of 4)

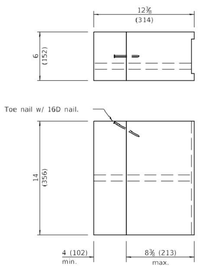
**STANDARD 630001-12**



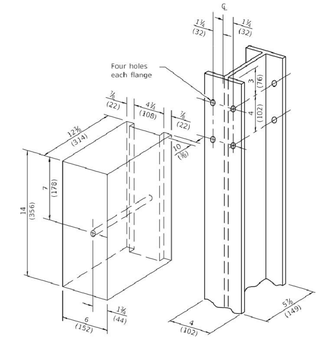

**STEEL POST CONSTRUCTION**




**WOOD POST CONSTRUCTION**

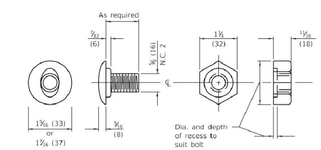



**TWO-PIECE WOOD BLOCKOUT OPTION**




Note:
All holes ⅞ (20) dia.

**WOOD BLOCK-OUT AND STEEL POST DETAILS**




**POST OR SPLICE BOLT & NUT**

Illinois Department of Transportation

APPROVED January 1, 2018 — ENGINEER OF POLICY AND PROCEDURES

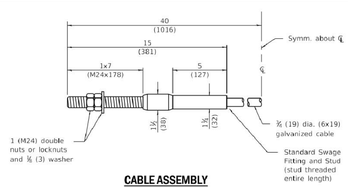
APPROVED January 1, 2018 — ENGINEER OF DESIGN AND ENVIRONMENT

BUREAU OF ROADWAY STANDARDS

**STEEL PLATE BEAM GUARDRAIL**

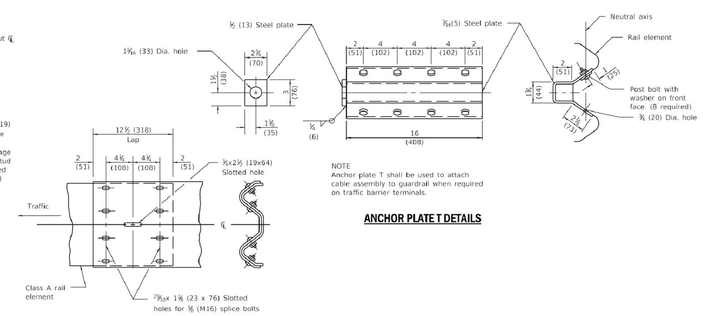
(Sheet 2 of 4)

**STANDARD 630001-12**




**CABLE ASSEMBLY**

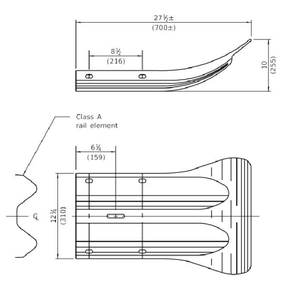
(42,800 lbs. (190 kN) min. breaking strength)
Tighten to taut tension.



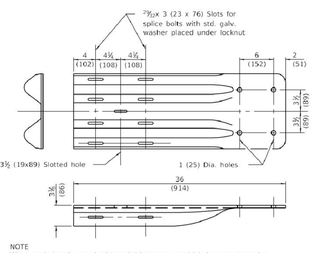

NOTE
Anchor plate T shall be used to attach cable assembly to guardrail when required on traffic barrier terminals.

**ANCHOR PLATE T DETAILS**

**RAIL ELEMENT SPLICE**




**END SECTION**

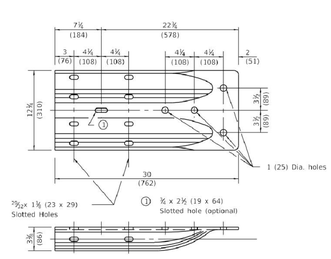



NOTE
When end shoe is attached to a bridge parapet which has an expansion joint, the bolts shall be provided with a locknut or double nut and shall be tightened only to a point that will allow guardrail movement.

The standard end shoe shall be attached to the concrete with pre-drilled or self-drilling anchor bolts. The anchor cone shall be set flush with the surface of the concrete.

Externally threaded studs protruding from the surface of the concrete will not be permitted.

**END SHOE**




**ALTERNATE END SHOE**

Illinois Department of Transportation

APPROVED January 1, 2018 — ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2018 — ENGINEER OF DESIGN AND ENVIRONMENT

BUREAU OF ROADWAY STANDARDS

**STEEL PLATE BEAM GUARDRAIL**

(Sheet 3 of 4)

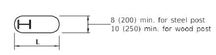
**STANDARD 630001-12**

**0 ≤ D < 6 (150 m)**

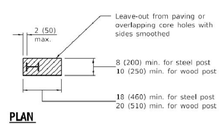
**4'-0" (1.2 m) ≤ D ≤ 12'-0" (3.7 m)**

**GUARDRAIL PLACED BEHIND CURB**

Note: 'D' shall not exceed 6 (152) for design speeds greater than 45 mph.

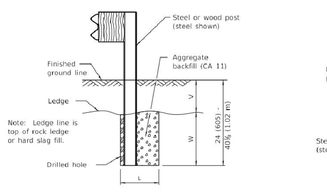



**PLAN**



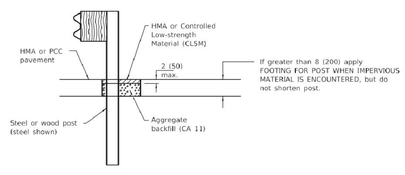

**PLAN**

| V | W | L | |
|---|---|---|---|
| | | Steel Post | Wood Post |
| 0 - 6 (0 - 152) | 24 (610) | 21 (530) | 23 (580) |
| > 6 - 18 (> 152 - 458) | 18 (458) | 14½ (368) | 16½ (419) |
| > 18 - 31 (> 458 - 787) | 12 (305) | 8 (203) | 10 (250) |
| > 31 - 40½ (> 787 - 1.02 m) | 12 - 0 (305 - 0) | 8 (203) | 10 (250) |




**ELEVATION**

**FOOTING FOR POST WHEN IMPERVIOUS MATERIAL IS ENCOUNTERED**




**ELEVATION**

**LEAVE-OUT FOR POST WHEN PAVED MATERIAL IS ENCOUNTERED**

Illinois Department of Transportation

APPROVED January 1, 2018 — ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2018 — ENGINEER OF DESIGN AND ENVIRONMENT

BUREAU OF ROADWAY STANDARDS

**STEEL PLATE BEAM GUARDRAIL**

(Sheet 4 of 4)

**STANDARD 630001-12**

ALL IDOT STANDARD AND DETAILS FOR CONSTRUCTION SHALL TAKE PRECEDENCE FOR WORK WITHIN THE STATE RIGHT OF WAY

SHOULD A CONFLICT ARISE BETWEEN MANHARD DETAILS AND THE VILLAGE OR IDOT DETAILS, THE VILLAGE OR IDOT DETAILS SHALL TAKE PRECEDENCE.

| DATE | REVISIONS | DRAWN BY |
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PEDESTRIAN AND BICYCLE PATHWAY

OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS

CONSTRUCTION DETAILS

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: AS
DATE: 05-04-21
SCALE: N.T.S.

SHEET 26 OF 30

OCCDPIL10

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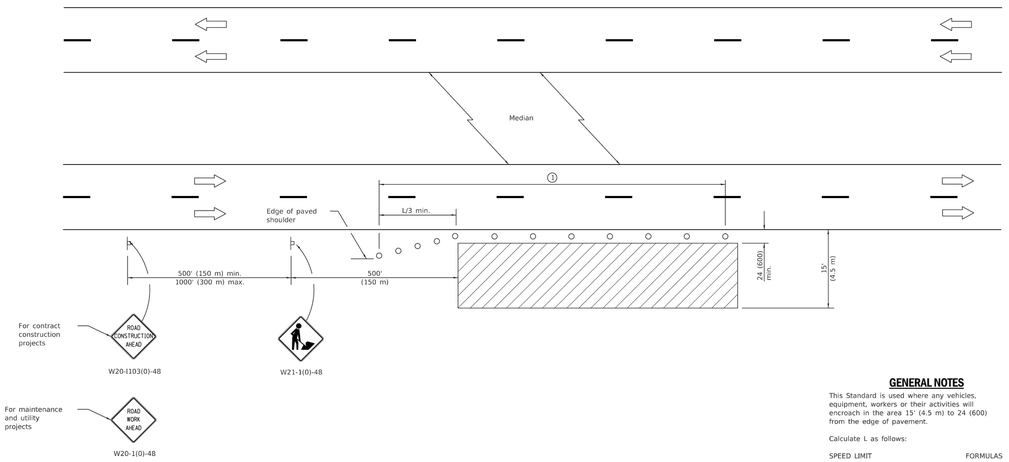
January 10, 2022 – 18:23 Dwg Name: p:\occdpil10\dwg\Eng\Vol2 drawings\Plan Set\X26-DETAILS.dwg Updated By: ASanchez




## TYPICAL APPLICATIONS

Utility operations
Culvert extensions
Side slope changes
Guardrail installation and maintenance
Delineator installation
Landscaping operations
Shoulder repair
Sign installation and maintenance

③ When the work operation exceeds one hour, cones, drums or barricades shall be placed at 25' (8 m) centers for L/3 distance, and at 50' (15 m) centers through the remainder of the work area.

## SYMBOLS

Work area
Sign
Cone, drum or barricade

## GENERAL NOTES

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15' (4.5 m) to 24 (600) from the edge of pavement.

Calculate L as follows:

| SPEED LIMIT | FORMULAS English | FORMULAS (Metric) |
|---|---|---|
| 40 mph (70 km/h) or less: | $L=\frac{WS^2}{60}$ | $L=\frac{WS^2}{150}$ |
| 45 mph (80 km/h) or greater: | L=(W)(S) | L=0.65(W)(S) |

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

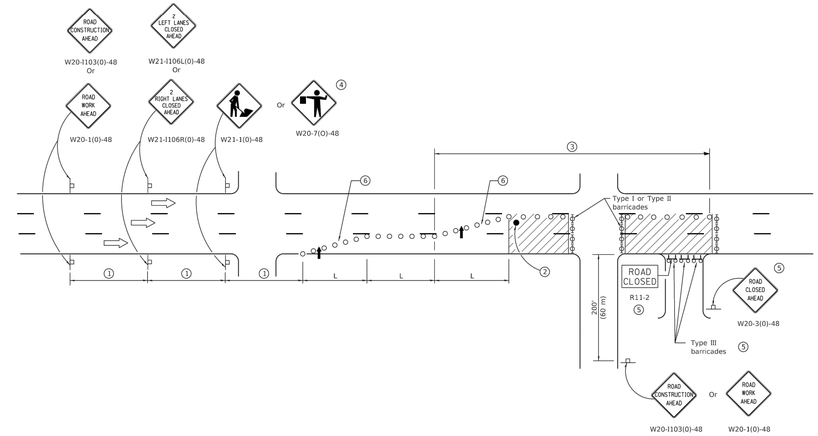
All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation
PASSED January 1, 2014 — ENGINEER OF SAFETY ENGINEERING
APPROVED January 1, 2014 — ENGINEER OF DESIGN AND ENVIRONMENT
d411 D0503

| DATE | REVISIONS |
|---|---|
| 4-1-16 | Corrected typo in title. |
| 1-1-14 | Revised workers sign number to agree with current MUTCD. |

# OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE

STANDARD 701101-05

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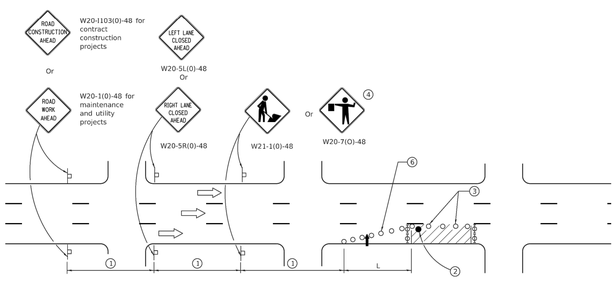
d411 D0503

# URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN

(Sheet 2 of 2)

STANDARD 701601-09




| SIGN SPACING | |
|---|---|
| Posted Speed | Sign Spacing |
| 55 | 500' (150 m) |
| 50-45 | 350' (100 m) |
| <45 | 200' (60 m) |

## SYMBOLS

Arrow board
Cone, drum or barricade
Sign on portable or permanent support
Work area
Barricade or drum with flashing light
Type III barricade with flashing lights
Flagger with traffic control sign.

① Refer to SIGN SPACING TABLE for distances.

② Required for speeds > 40 MPH

③ Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.

④ Use flagger sign only when flagger is present.

⑤ For approved sideroad closures.

⑥ Cones, drums or barricades at 20' (6 m) in taper.

## GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement during shoulder operations or where construction requires lane closures in urban areas.

Calculate L as follows:

| SPEED LIMIT | FORMULAS English | FORMULAS (Metric) |
|---|---|---|
| 40 mph (70 km/h) or less: | $L=\frac{WS^2}{60}$ | $L=\frac{WS^2}{150}$ |
| 45 mph (80 km/h) or greater: | L=(W)(S) | L=0.65(W)(S) |

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

All dimensions are in inches (millimeters) unless otherwise shown.

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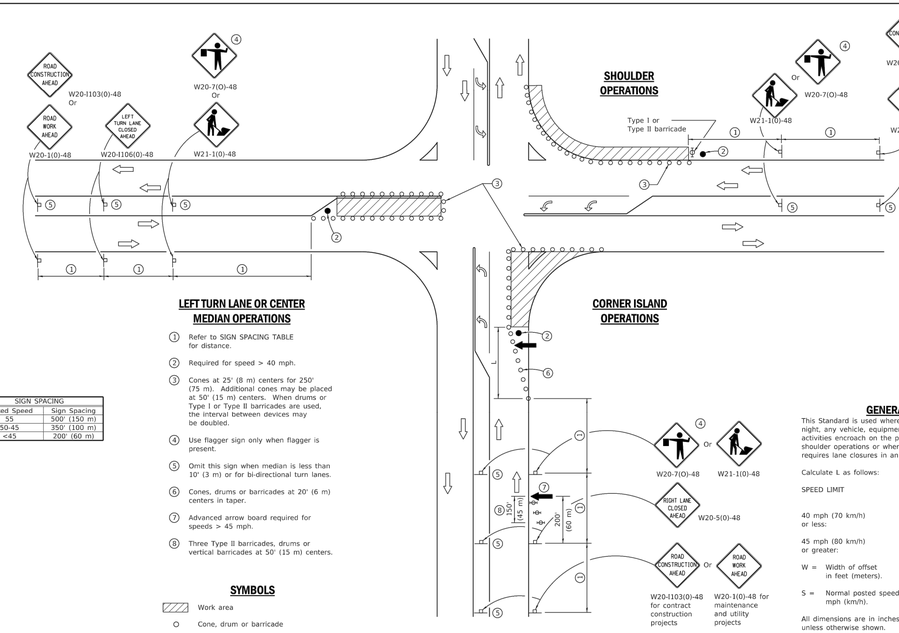
APPROVED January 1, 2014 — ENGINEER OF DESIGN AND ENVIRONMENT
d411 D0503

| DATE | REVISIONS |
|---|---|
| 1-1-14 | Revised workers sign number to agree with current MUTCD. |
| 1-1-13 | Omitted text 'WORKERS' sign. |

# URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN

(Sheet 1 of 2)

STANDARD 701601-09




| SIGN SPACING | |
|---|---|
| Posted Speed | Sign Spacing |
| 55 | 500' (150 m) |
| 50-45 | 350' (100 m) |
| <45 | 200' (60 m) |

① Refer to SIGN SPACING TABLE for distance.

② Required for speed > 40 mph.

③ Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or Type I or Type II barricades are used, the interval between devices may be doubled.

④ Use flagger sign only when flagger is present.

⑤ Omit this sign when median is less than 10' (3 m) or for bi-directional turn lanes.

⑥ Cones, drums or barricades at 20' (6 m) centers in taper.

⑦ Advanced arrow board required for speeds > 45 mph.

⑧ Three Type II barricades, drums or vertical barricades at 50' (15 m) centers.

## SYMBOLS

Work area
Cone, drum or barricade
Sign on portable or permanent support
Arrow board
Barricade or drum with flashing light
Flagger with traffic control sign

## GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement during shoulder operations or where construction requires lane closures in an urban area.

Calculate L as follows:

| SPEED LIMIT | FORMULAS English | FORMULAS (Metric) |
|---|---|---|
| 40 mph (70 km/h) or less: | $L=\frac{WS^2}{60}$ | $L=\frac{WS^2}{150}$ |
| 45 mph (80 km/h) or greater: | L=(W)(S) | L=0.65(W)(S) |

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

All dimensions are in inches (millimeters) unless otherwise shown.

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d411 D0503

| DATE | REVISIONS |
|---|---|
| 4-1-16 | Corrected sign number for LEFT TURN LANE CLOSED AHEAD. |
| 1-1-14 | Added devices at arrow board upstream from taper. Rev. workers sign number. |

# URBAN LANE CLOSURE, MULTILANE INTERSECTION

STANDARD 701701-10

ALL IDOT STANDARD AND DETAILS FOR CONSTRUCTION SHALL TAKE PRECEDENCE FOR WORK WITHIN THE STATE RIGHT OF WAY

SHOULD A CONFLICT ARISE BETWEEN MANHARD DETAILS AND THE VILLAGE OR IDOT DETAILS, THE VILLAGE OR IDOT DETAILS SHALL TAKE PRECEDENCE.

| DATE | REVISIONS | DRAWN BY |
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OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS
CONSTRUCTION DETAILS

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: AS
DATE: 05-04-21
SCALE: N.T.S.

SHEET 26A OF 30
OCCDPIL10

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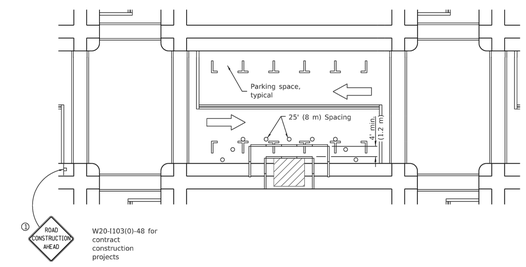
January 10, 2022 – 16:23 Dwg Name: p:\occdpil10\dwg\Eng\final drawings\Plan Set\25-DETAILS.dwg Updated By: ASanchez

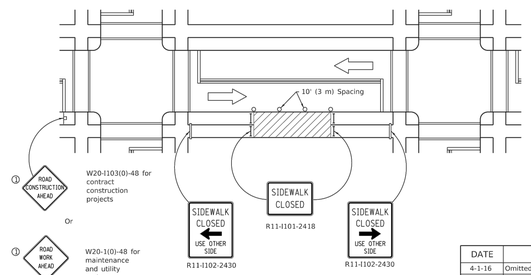



① Omit whenever duplicated by road work traffic control.

## SIDEWALK DIVERSION

## SYMBOLS

- Work area
- Sign on portable or permanent support
- Barricade or drum
- Cone, drum or barricade
- Type III barricade
- Detectable pedestrian channelizing barricade




## SIDEWALK CLOSURE

## GENERAL NOTES

This Standard is used where, at any time, pedestrian traffic must be rerouted due to work being performed.

This Standard must be used in conjunction with other Traffic Control & Protection Standards when roadway traffic is affected.

Temporary facilities shall be detectable and accessible.

The temporary pedestrian facilities shall be provided on the same side of the closed facilities whenever possible.

The SIDEWALK CLOSED / USE OTHER SIDE sign shall be placed at the nearest crosswalk or intersection to each end of the closure. Where the closure occurs at a corner, the signs shall be erected on the corners across the street from the closure. The SIDEWALK CLOSED signs shall be used at the ends of the actual closures.

Type III barricades and R11-2-4830 signs shall be positioned as shown in "ROAD CLOSED TO ALL TRAFFIC" detail on Standard 701901.

All dimensions are in inches (millimeters) unless otherwise shown.

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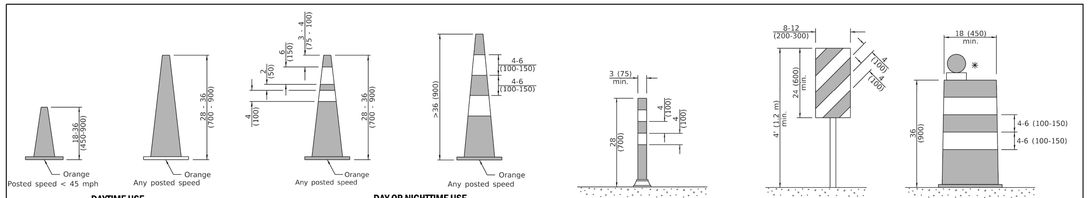
(614) (09/00) — ISSUED 1-1-97

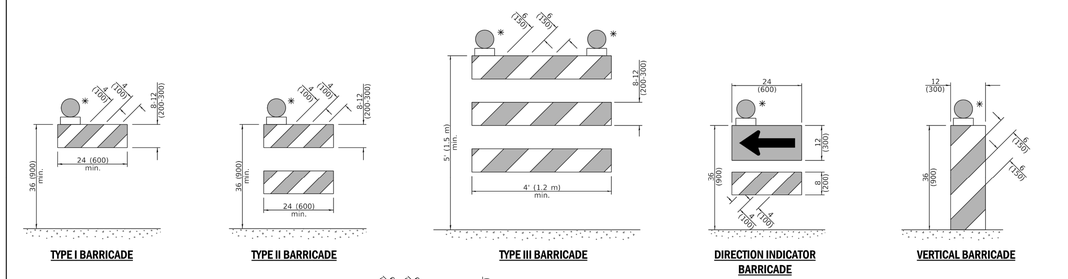
| DATE | REVISIONS |
|---|---|
| 4-1-16 | Omitted orange safety fence from standard as this is covered in the std. spec. |
| 1-1-12 | Added SIDEWALK DIVERSION. Modified appearance of plan views. Renamed Std. |

# SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 1 of 2)

STANDARD 701801-06




✱ Warning lights (if required)

## GENERAL NOTES

All heights shown shall be measured above the pavement surface.

All dimensions are in inches (millimeters) unless otherwise shown.

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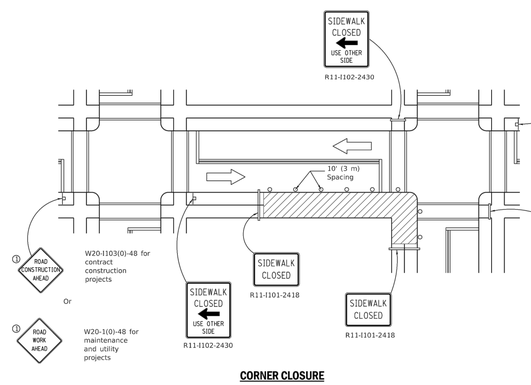
(614) (09/00) — ISSUED 1-1-19

| DATE | REVISIONS |
|---|---|
| 1-1-19 | Revised cone usage and added cones >36" (900 m) height. |
| 1-1-18 | Revised END WORK ZONE SPEED LIMIT sign from orange to white background. |

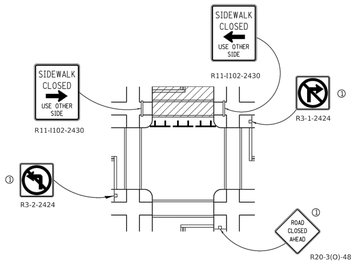
# TRAFFIC CONTROL DEVICES

(Sheet 3 of 3)

STANDARD 701901-08




## CORNER CLOSURE




## CROSSWALK CLOSURE

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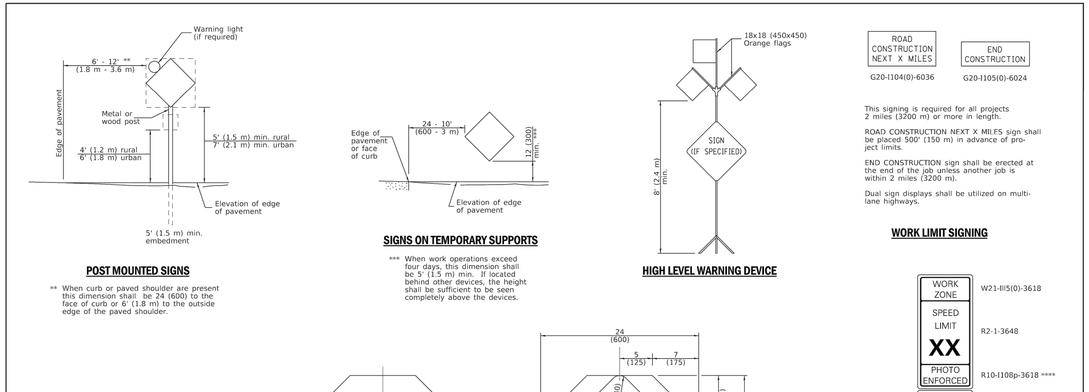
# SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 2 of 2)

STANDARD 701801-06

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APPROVED January 3, 2019 — ENGINEER OF DESIGN AND ENVIRONMENT
(614) (09/00) — ISSUED 1-1-19

# TRAFFIC CONTROL DEVICES

(Sheet 2 of 3)

STANDARD 701901-08

ALL IDOT STANDARD AND DETAILS FOR CONSTRUCTION SHALL TAKE PRECEDENCE FOR WORK WITHIN THE STATE RIGHT OF WAY

SHOULD A CONFLICT ARISE BETWEEN MANHARD DETAILS AND THE VILLAGE OR IDOT DETAILS, THE VILLAGE OR IDOT DETAILS SHALL TAKE PRECEDENCE.

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OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS
CONSTRUCTION DETAILS

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: AS
DATE: 05-04-21
SCALE: N.T.S.

SHEET 26B OF 30
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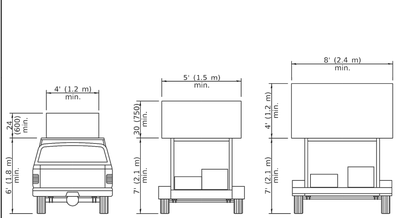
January 10, 2022 – 16:23 Dwg Name: p:\occdpil10\dwg\Civil drawings\Plan Set\25-DETAILS.dwg Updated By: ASanchez

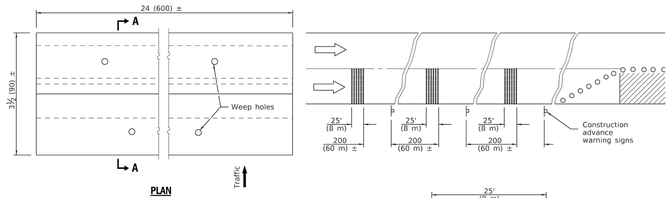



TYPE A ROOF MOUNTED

TYPE B ROOF OR TRAILER MOUNTED

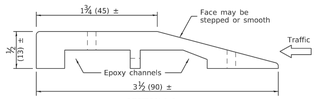
TYPE C TRAILER MOUNTED

ARROW BOARDS

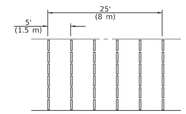



PLAN



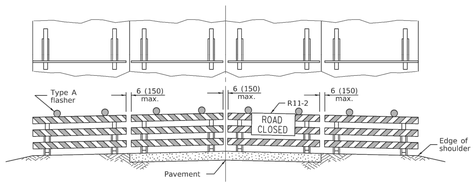




SECTION A-A



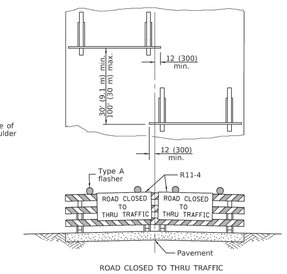

TYPICAL INSTALLATION

TEMPORARY RUMBLE STRIPS




ROAD CLOSED TO ALL TRAFFIC

Reflectorized striping may be omitted on the back side of the barricades. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the sign may be mounted on an NCHRP 350 temporary sign support directly in front of the barricade.




ROAD CLOSED TO THRU TRAFFIC

Reflectorized striping shall appear on both sides of the barricades. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the signs may be mounted on NCHRP 350 temporary sign supports directly in front of the barricade.

Illinois Department of Transportation

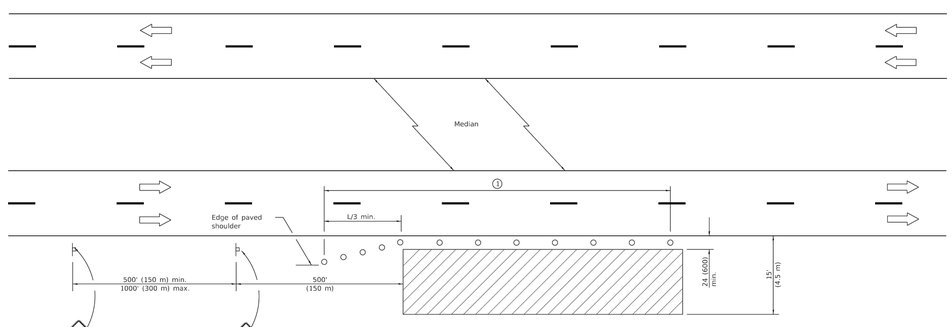
| | | |
|---|---|---|
| APPROVED January 1, 2019 ENGINEER OF SAFETY PROG. AND ENGINEERING | | |
| APPROVED January 1, 2019 ENGINEER OF DESIGN AND ENVIRONMENT | 01-1-1 | GBR90 |

TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD

**TRAFFIC CONTROL DEVICES**

(Sheet 3 of 3)

**STANDARD 701901-08**




For contract construction projects

ROAD CONSTRUCTION AHEAD

W20-1103(0)-48

W21-1(0)-48

For maintenance and utility projects

ROAD WORK AHEAD

W20-1(0)-48

## TYPICAL APPLICATIONS

Utility operations
Culvert extensions
Side slope changes
Guardrail installation and maintenance
Delineator installation
Landscaping operations
Shoulder repair
Sign installation and maintenance

3 When the work operation exceeds one hour, cones, drums or barricades shall be placed at 25' (8 m) centers for L/3 distance, and at 50' (15 m) centers through the remainder of the work area.

## GENERAL NOTES

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15' (4.5 m) to 24 (600) from the edge of pavement.

Calculate L as follows:

| SPEED LIMIT | FORMULAS English | FORMULAS (Metric) |
|---|---|---|
| 40 mph (70 km/h) or less: | $L=\frac{WS^2}{60}$ | $L=\frac{WS^2}{150}$ |
| 45 mph (80 km/h) or greater: | L=(W)(S) | L=0.65(W)(S) |

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

All dimensions are in inches (millimeters) unless otherwise shown.

## SYMBOLS

Work area

Sign

Cone, drum or barricade

Illinois Department of Transportation

| | | |
|---|---|---|
| PASSED April 1, 2016 ENGINEER OF SAFETY ENGINEERING | | |
| APPROVED April 1, 2016 ENGINEER OF DESIGN AND ENVIRONMENT | 16-1-1 | GBR90 |

| DATE | REVISIONS |
|---|---|
| 4-1-16 | Corrected typo in title. |
| | |
| | |
| 1-1-14 | Revised workers sign |
| | number to agree with |
| | current MUTCD. |

**OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE**

**STANDARD 701101-05**

ALL IDOT STANDARD AND DETAILS FOR CONSTRUCTION SHALL TAKE PRECEDENCE FOR WORK WITHIN THE STATE RIGHT OF WAY

SHOULD A CONFLICT ARISE BETWEEN MANHARD DETAILS AND THE VILLAGE OR IDOT DETAILS, THE VILLAGE OR IDOT DETAILS SHALL TAKE PRECEDENCE.

| DATE | REVISIONS | DRAWN BY |
|---|---|---|
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Manhard CONSULTING LTD
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Civil Engineers • Structural Engineers • Surveyors • Water Resource Engineers • Water & Wastewater Engineers
Construction Managers • Environmental Scientists • Landscape Architects • Planners


PEDESTRIAN AND BICYCLE PATHWAY

OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS

CONSTRUCTION DETAILS

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: AS
DATE: 05-04-21
SCALE: N.T.S.

SHEET 26C OF 30

OCCDPIL10

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ISSUED FOR BID

January 10, 2022 - 16:23 Dwg Name: p:\occdpil10\dwg\Eng\final drawings\Plan Set\25-DETAILS.dwg Updated By: ASanchez

06-01-16

# MANHARD CONSULTING, LTD.
# STANDARD SPECIFICATIONS

**GENERAL CONDITIONS**

CONTRACTOR acknowledges and agrees that the use and reliance of these Plans and Specifications is sufficient consideration for CONTRACTOR'S covenants stated herein.

**DEFINITION OF TERMS**

a. "CLIENT" shall mean Oakton Community College , which is the person or entity with whom Manhard Consulting, Ltd. has contracted with to prepare Civil Engineering PLANS and SPECIFICATIONS.
b. "ENGINEER" shall mean Manhard Consulting, Ltd., a Civil Engineering consultant on the subject project.
c. "PLANS and SPECIFICATIONS" shall mean the Civil Engineering PLANS and SPECIFICATIONS prepared by the ENGINEER, which may be a part of the contract documents for the subject project.
d. "CONTRACTOR" shall mean any person or entity performing any work described in the PLANS and SPECIFICATIONS.
e. "JURISDICTIONAL GOVERNMENTAL ENTITY" shall mean any municipal, county, state or federal unit of government from whom an approval, permit and/or review is required for any aspect of the subject project.

**INTENT OF THE PLANS AND SPECIFICATIONS**

The intent of the PLANS and SPECIFICATIONS is to set forth certain requirements of performance, type of equipment and structures, and standards of materials and construction. They may also identify labor and materials, equipment and transportation necessary for the proper execution of the work but are not intended to be infinitely determined so as to include minor items obviously required as part of the work. The PLANS and SPECIFICATIONS require new material and equipment unless otherwise indicated, and to require complete performance of the work in spite of omissions of specific references to any minor component part. It is not intended, however, that materials or work not covered by or properly inferred from any heading, branch, class or trade of the SPECIFICATIONS shall be supplied unless distinctly so noted. Materials or work described in words, which so applied have a well-known technical or trade meaning, shall be held to refer to such recognized standards.

**INTERPRETATION OF PLANS AND SPECIFICATIONS**

a. The CLIENT and/or CONTRACTOR shall promptly report any errors or ambiguities in the PLANS and SPECIFICATIONS to the ENGINEER. Questions as to meaning of PLANS and SPECIFICATIONS shall be interpreted by the ENGINEER, whose decision shall be final and binding on all parties concerned.
b. The ENGINEER will provide the CLIENT with such information as may be required to show revised or additional details of construction.
c. Should any discrepancies or conflicts on the PLANS or SPECIFICATIONS be discovered either prior to or after award of the contract, the ENGINEER's attention shall be called to the same before the work is begun thereon and the proper corrections made. Neither the CLIENT nor the CONTRACTOR may take advantage of any error or omissions in the PLANS and SPECIFICATIONS. The ENGINEER will provide information when errors or omissions are discovered.

**GOVERNING BODIES**

All works herein proposed shall be completed in accordance with all requirements of any JURISDICTIONAL GOVERNMENTAL ENTITY, and all such pertinent laws, directives, ordinances and the like shall be considered to be a part of these SPECIFICATIONS. If a discrepancy is noted between the PLANS and SPECIFICATIONS and requirements of any JURISDICTIONAL GOVERNMENTAL ENTITY, the CLIENT and/or the CONTRACTOR shall immediately notify the ENGINEER in writing.

**LOCATION OF UNDERGROUND FACILITIES AND UTILITIES**

When the PLANS and SPECIFICATIONS include information pertaining to the location of existing underground facilities and utilities (including but not limited to water mains, sanitary sewers, storm sewers, electric, telephone, gas and cable TV lines), such information represents only the opinion of the ENGINEER as to the approximate location and elevation of such facilities and utilities. At the locations wherein detailed positions of these facilities and utilities become necessary to the new construction, including all points of connection, the CONTRACTOR shall furnish all labor and tools to verify or definitely establish the horizontal location, elevation, size and material (if appropriate) of the facilities and utilities. The CONTRACTOR shall notify the ENGINEER at least 48 hours prior to construction if any discrepancies in existing utility information or conflicts with existing utilities exist. The ENGINEER assumes no responsibility whatever with respect to the sufficiency or accuracy of the information shown on the PLANS and SPECIFICATIONS relative to the location of underground facilities and utilities, nor the manner in which they are removed or adjusted.

It shall be the CONTRACTOR's responsibility prior to construction, to notify all Utility Companies of the intent to begin construction and to verify the actual location of all such facilities and utilities. The CONTRACTOR shall also obtain from the respective Utility Companies the working schedules for removing or adjusting these facilities.

**UNSUITABLE SOILS**

The PLANS have been prepared by the ENGINEER based on the assumption that all soils on the project are suitable to support the proposed improvements shown. The CLIENT or CONTRACTOR shall immediately notify the ENGINEER if he discovers or encounters an obstruction that prevents the installation of the improvement according to the line and grades shown on the PLANS.

**PROTECTION OF TREES**

All trees that are not to be removed shall be protected from damage. Trees shall not be removed unless requested to do so in writing by the CLIENT.

**NOTIFICATION OF OWNERS OF FACILITIES AND UTILITIES**

The CONTRACTOR shall notify all applicable Jurisdictional Governmental Entities or utility companies, i.e., water, sewer, electric, telephone, gas and cable TV prior to beginning any construction so that said entity or company can establish the location and elevation of underground pipes, conduits or cables adjoining or crossing proposed construction.

**TRAFFIC CONTROL**

The CONTRACTOR shall provide when required by any JURISDICTIONAL GOVERNMENTAL ENTITY, all signs, equipment, and personnel necessary to provide for safe and efficient traffic flow in all areas where the work will interrupt, interfere or cause to change in any form, the conditions of traffic flow that existed prior to the commencement of any portions of the work. The CLIENT may, at his discretion, require the CONTRACTOR to furnish traffic control under these or other circumstances where in his opinion it is necessary for the protection of life and property. Emergency vehicle access shall be maintained at all times. Unless authorized by the CLIENT or CLIENT's construction representative, all existing access points shall be maintained at all times by the CONTRACTOR. The need for traffic control shall be anticipated by the CLIENT.

**WORK AREA**

The CONTRACTOR, his agents and employees and their employees and all equipment, machinery and vehicles shall confine their work within the boundaries of the project or work area specified by the Client. The CONTRACTOR shall be solely liable for damage caused by him or his agents and employees and their equipment, machinery and vehicles on adjacent property or areas outside designated work areas.

**UTILITY POLES**

It shall be the responsibility of the CONTRACTOR to arrange for the relocation or bracing of existing utility poles that may be within the working limits of this contract. It is expressly understood that all work and costs connected with the maintenance of these utility poles, their temporary relocations, etc., shall be the responsibility of the CLIENT or the CONTRACTOR.

**RESTORATION**

It is the intent of these SPECIFICATIONS that clean-up and final restoration shall be performed immediately upon completion of each phase of the work, both inside and outside the Project, or when so directed by the CLIENT so that these areas will be restored as nearly as possible to their original condition or better, and shall include but not be limited to, restoration of maintained lawns and rights-of-way, roadways, driveways, sidewalks, ditches, bushes, hedges, trees, shrubs, fences, mailboxes, sewers, drain tiles, water mains, etc.

**CLEANING UP**

The CONTRACTOR shall at all times keep the premises free from accumulations of waste material or rubbish caused by his employees or work, and at the completion of the work he shall remove all his rubbish, tools, scaffolding and surplus materials and shall leave his work "broom clean" or its equivalent, unless more exactly specified.

**ROAD CLEANING**

The CONTRACTOR shall maintain roadways adjoining the project site free from mud and debris at all times. If mud and/or debris is carried onto the roadways from vehicles entering onto the highway from either the CONTRACTOR's trucks, his employees' vehicles, or his material suppliers, the CONTRACTOR shall immediately remove said mud and/or debris.

**SAFETY AND PROTECTION**

The CONTRACTOR shall be solely and completely responsible for the conditions of the job site, including safety of all persons and property during performance of the work. This requirement shall apply continuously and not be limited to normal working hours. The CONTRACTOR shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR's duties and responsibilities for safety and for protection of the work shall continue until such time as all work is completed and the CLIENT has notified CONTRACTOR that the work is acceptable. The duties of the ENGINEER do not include review of the adequacy of either the CONTRACTOR's or the general public's safety in, on, or near the construction site.

**HOLD HARMLESS**

To the fullest extent permitted by law, any CONTRACTOR; material supplier or other entity by use of these plans and specifications hereby waives any right of contribution and agrees to indemnify, defend, save and hold harmless the CLIENT and ENGINEER and its agents, employees and consultants from and against all manner of claims, causes, causes of action, damages, losses and expenses, including but not limited to, attorneys' fees arising out of, resulting from or in connection with the performance of any work, pursuant to or with respect to these plans and specifications. However, this indemnity shall not be construed to indemnify ENGINEER, its consultants, agents or employees against its own negligence.

Claims, damages, losses and expenses as these words are used in the Agreement shall mean and include, but not be limited to (1) injury or damage occurring by reason of the failure of or use or misuse of any hoist, riggings, blocking, scaffolding or any and all other kinds of items of equipment, whether or not the same be owned, furnished or loaned by any part or entity, including any contractor; (2) all attorneys' fees and costs incurred in bringing an action to enforce the provisions of this indemnity; (3) costs for time expended by the indemnified party and its employees, at its usual rates plus costs or travel, long distance telephone and reproduction of documents and (4) consequential damages.

In any and all claims against the CLIENT or ENGINEER or any of their agents or employees and consultants by any party, including any employee of the CONTRACTOR or any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount of type of damages, compensation or benefits payable by or for the CONTRACTOR or any Subcontractor under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts or any insurance maintained by CONTRACTOR or any Subcontractor or any other party.

**INSURANCE**

Any party using or relying on these plans, including any contractor, material supplier, or other entity shall obtain, (prior to commencing any work) general public liability insurance insuring against all damages and claims for any bodily injuries, death or property damage arising out of any work, including the construction work provided for in these plans, and shall name the CLIENT and ENGINEER and its consultants, agents and representatives as additional insureds under such insurance policy; provided that any party using or relying on these plans having obligations to maintain specific insurance by reason of any agreement with CLIENT or any CONTRACTOR or ENGINEER shall provide evidence and certificates of insurance as required by such contract or agreement. Such insurance must contain a clause stating that the insurance is primary coverage for ENGINEER and ENGINEER's other applicable coverage is considered secondary. Such insurance shall not limit any liability of any party providing work or services or providing materials.

**THIRD PARTY BENEFICIARY**

Manhard Consulting, Ltd., the ENGINEER, is intended to be a third party beneficiary of this willing agreement and requirement.

Note: These Specifications are for Northern Illinois.

# DETAILED SPECIFICATIONS

## * I. DEMOLITION

The CONTRACTOR shall coordinate with respective utility companies prior to the removal and/or relocation of utilities. The CONTRACTOR shall coordinate with the utility company concerning portions of work which may be performed by the Utility Company's forces and any fees which are to be paid to the utility company for their services. The CONTRACTOR is responsible for paying for all fees and charges.

Should removal and/or relocation activities damage features indicated to remain, the CONTRACTOR shall provide new materials/structures in accordance with the contract documents. Except for materials designed to be relocated on this plan, all other construction materials shall be new.

Prior to demolition occurring, all erosion control devices are to be installed.

All utility lines and conduits located under drives, on-site roads, parking lots or sidewalks shall be filled with a flowable backfill and end plugged. All existing structures shall be removed. All existing utility lines located under landscape areas shall be left in place and plugged at all structures.

The CONTRACTOR is responsible for demolition, removal and disposal (in a location approved by all JURISDICTIONAL GOVERNING ENTITIES) of all structures, pads, walls, flumes, foundations, road, parking lots, drives, drainage structures, utilities, etc., such that the improvements shown on these plans can be constructed. All demolition work shall be in accordance with all applicable federal, state and local requirements. All facilities to be removed shall be undercut to suitable material and brought to grade with suitable compacted fill material per the specifications.

The CONTRACTOR is responsible for obtaining all permits required for demolition and disposal.

Electrical, telephone, cable, water, fiber optic cable and/or gas lines needing to be removed shall be coordinated by the CONTRACTOR with the affected utility company.

CONTRACTOR must protect the public at all times with fencing, barricades, enclosures, and other appropriate best management practices.

Continuous access shall be maintained for surrounding properties at all times during demolition.

All fire access lanes within the project area shall remain in service, clean of debris, and accessible for use by emergency vehicles.

CONTRACTOR shall maintain all existing parking areas, sidewalks, drives, etc. clear and free from any construction activity and/or material to ensure easy and safe pedestrian and vehicular traffic to and from the site. CONTRACTOR shall coordinate/phase all construction activity within proximity of the building and utility interruptions with the facility manager to minimize disturbance and inconvenience to facility operations.

CONTRACTOR may limit saw-cut and pavement removal to only those areas where it is required as shown on these construction plans, however if any damage is incurred on any of the surrounding pavement, etc. the CONTRACTOR shall be responsible for ITS removal and repair.

Any existing wells encountered shall be exposed and sealed 3' below proposed finish grade by the CONTRACTOR in accordance with Section 920.120 (latest edition) of the Illinois Water Well Construction Code, Department of Public Health, and all applicable local rules and regulations. CONTRACTOR is responsible for obtaining all permits required by JURISDICTIONAL GOVERNMENTAL ENTITIES for abandoning existing wells.

Any existing septic tanks and grease traps encountered shall have all liquids and solids removed and disposed of by a licensed commercial hauler in accordance with JURISDICTIONAL GOVERNING ENTITY regulations, and the tank and grease traps shall then be filled with suitable materials or removed from the site and disposed of by the CONTRACTOR.

Voids left by any item removed under any proposed building, pavement, walk, etc. or within 24" thereof shall be filled and compacted with suitable materials by the CONTRACTOR.

CONTRACTOR shall develop and implement a daily program of dust control and shall submit and obtain JURISDICTIONAL GOVERNING ENTITY approval of dust control procedures prior to demolition of any structures. Modification of dust control procedures shall be performed by the CONTRACTOR to the satisfaction of the JURISDICTIONAL GOVERNING ENTITY as requested.

The CONTRACTOR shall coordinate all demolition with the JURISDICTIONAL GOVERNING ENTITY and CLIENT to ensure protection and maintenance of sanitary sewer and water utilities as necessary and to provide stormwater conveyance until new facilities are constructed, tested and placed into operation.

The locations of all existing utilities shown on this plan have been determined from the best information available and are given for the convenience of the CONTRACTOR and are not to be interpreted as the exact location, or as the only obstacles that may occur on the site. The ENGINEER assumes no responsibility for their accuracy. Prior to the start of any demolition activity, the CONTRACTOR shall notify the utility companies for location of existing utilities and shall verify existing conditions and proceed with caution around any anticipated features.

The CONTRACTOR is responsible for removing the existing irrigation system in the areas of proposed improvements. The contractor shall cap the existing irrigation system to remain such that the remaining system shall continue to function properly.

The path shall be completed in sections such that it does not interrupt the facility operations. The CONTRACTOR shall coordinate with the construction manager for work to be performed.

## II. EARTHWORK

**STANDARDS**

This work shall be completed in conformance with the applicable sections of the Standard Specifications for Road and Bridge Construction, Department of Transportation, State of Illinois, latest edition except as modified below.

**SOIL BORING DATA**

Copies of results of soil boring and reports, if such borings were taken by the CLIENT in the vicinity of the proposed construction site, should be made available by the CLIENT to the CONTRACTOR. These borings are presented for whatever purpose the CONTRACTOR chooses to make of them. The ENGINEER makes no representation or warranty regarding the number, location, spacing or depth of borings taken, nor of the accuracy or reliability of the information given in the results thereof.

Further, the ENGINEER does not assume responsibility for the possibility that during construction, the soil and groundwater condition may be different than indicated. Neither does the ENGINEER assume responsibility for variations of soil and groundwater at location between borings. The CONTRACTOR is required to make its own borings, explorations and observations to determine soil and groundwater conditions.

**EARTHWORK CALCULATIONS AND CROSS SECTIONS**

The CONTRACTOR understands that any earthwork calculations, quantities or cross sections that have been furnished by the ENGINEER are for information only and are provided without any guarantee by the CLIENT or ENGINEER whatsoever as to their sufficiency or accuracy. CONTRACTOR warrants that he has performed his own subsurface investigations as necessary and his own calculations and cross sections to determine site soil conditions and earthwork volumes. The ENGINEER makes no representation or guarantee regarding earthwork quantities or that the earthwork for this project will balance due to the varying field conditions, changing soil types, allowable construction to tolerances and construction methods that are beyond the control of the ENGINEER.

**CLEARING, GRUBBING AND TREE REMOVAL**

The site shall be cleared, grubbed, and trees and stumps removed where designated on the PLANS. Trees designated to remain shall be protected from damage.

**TOPSOIL STRIPPING**

Upon completion of demolition, clearing, grubbing and tree removal, all topsoil shall be stripped from under all buildings and pavements areas, and other areas necessary to complete the work. Topsoil stripped shall be placed in stockpiles in locations as designated by the CLIENT.

**TOPSOIL RESPREAD**

Upon completion of roadway and/or parking lot improvements and installation of underground utilities a minimum of six inches (6") of topsoil shall be respread over all unpaved areas which have been disturbed by earthwork construction, except building pads and other designated areas, which shall be kept free from topsoil.

**SEEDING**

Upon completion of topsoil respread, the CONTRACTOR shall apply seed and fertilizer to all respread areas in accordance with IDOT standards or as designated on landscape drawings and specifications provided by the CLIENT.

**SODDING**

Upon completion of topsoil respread, the CONTRACTOR shall install sod to all areas designated on the plans or as designated on the landscape drawings and specifications provided by the CLIENT.

* **EXCAVATION AND EMBANKMENT**

Upon completion of topsoil stripping, all excavation and embankments shall be completed as shown on the PLANS. All suitable excavated materials shall be hauled, placed (moisture conditioned if necessary) and compacted in the embankment areas. The CONTRACTOR shall include all dewatering, temporary ditching and culverts necessary to complete the excavation and embankment.

Specifically included in the scope of Excavation and Embankments is grading and shaping of all cut or fill areas including swales and ditches; handling of sewer spoil, etc., and all work required to provide positive drainage at the end of each working day and upon completion of a section.

The CONTRACTOR shall be responsible for the excavation of all swales and ditches and for the excavation or filling of the roads, building pads and parking lots within the work limits to lines & grades shown on the plans. He shall be responsible for obtaining compaction in accordance with the minimum values listed in the table below for all embankments unless more stringent values are listed in the soils report or are approved by the CLIENT, and to use any method approved by the CLIENT necessary to obtain this compaction (i.e., soil fabric or any undercutting that may be required).

| Type Material | Percent Compaction Standard | Pavement & Floor Slabs | Grass Areas |
|---|---|---|---|
| Sandy Soils | Modified Proctor | 95% | 90% |
| Clayey Soils | Standard Proctor | 95% | 90% |

The CONTRACTOR shall notify the CLIENT if proper compaction cannot be obtained so that the CLIENT may determine what remedial measures may be needed.

A soils testing firm employed by the CLIENT shall determine which soils are unsuitable. Materials in their natural state being defined as unsuitable that would be suitable material if moisture conditioned, shall be conditioned by the CONTRACTOR and used as suitable embankment material or hauled from the site.

For purposes of definition, unsuitable material shall be as follows unless determined otherwise by the Soils Engineer:

1. Any soil whose optimum moisture content exceeds 25%.
2. Any cohesive soil with an unconfined compressive strength of 1.5 tons per square foot or less.
3. Any soil whose silt content exceeds 60% by weight.
4. Any soil whose maximum density is less than 100 pounds per cubic foot.
5. Any soil containing organic, deleterious, or hazardous material.

Ditches and swales are to be excavated to the lines and grades indicated on the PLANS. All suitable materials excavated from the ditches shall be used in construction of the embankments.

The CONTRACTOR shall notify the CLIENT immediately upon encountering groundwater during excavation. If in the opinion of the CLIENT or the JURISDICTIONAL GOVERNING ENTITY this condition necessitates the installation of perforated drain tile bedded in washed gravel or open storm sewer joints wrapped with fabric, the CONTRACTOR shall install the same.

**EROSION CONTROL**

Suitable erosion control practices shall be maintained by the CONTRACTOR in accordance with Illinois Urban Manual and all applicable Soil Erosion and Sedimentation Control ordinances and the PLANS.

**UNDERCUTTING DURING EARTHWORK**

If the subgrade cannot be dried adequately by discing as outlined above for placement of material to planned grades and if the CLIENT determines that the subgrade does not meet the standards set forth above, the CLIENT may require undercutting.

**MISCELLANEOUS CONTRACT ITEMS**

The following items may be required at the CLIENT's option, as indicated on the PLANS or as required by the JURISDICTIONAL GOVERNING ENTITY:

(1) **GEOTEXTILE FABRIC**

Geotextile fabric or approved equal shall be provided in areas as designated by the CLIENT, as indicated on the PLANS or as required by the JURISDICTIONAL GOVERNING ENTITY where proper compaction of embankments over existing soft soils is not possible. Geotextile fabric shall meet the material specifications of and shall be installed in accordance with the above standards.

(2) **EROSION CONTROL BLANKET**

Erosion control blanket or approved equal shall be provided in areas as designated by the CLIENT, as indicated on the PLANS or as required by the JURISDICTIONAL GOVERNING ENTITY for the stabilization of disturbed areas. Erosion control blanket shall meet the material specifications of and shall be installed in accordance with the above standards, the Illinois Urban Manual and/or the details shown on the PLANS.

## III. UNDERGROUND IMPROVEMENTS

### A. GENERAL

**STANDARDS**

All underground improvements shall be constructed and tested in accordance with the Standard Specifications for Water and Sewer Construction in Illinois and Standard Specifications for Road and Bridge Construction, Department of Transportation, State of Illinois, latest edition. In the event of conflicting guidelines, the more restrictive shall govern.

**SELECTED GRANULAR BACKFILL**

Selected Granular Backfill shall be required for all sewer and water main trenches lying under existing or proposed streets, driveways, parking lots and within 24" thereof, and where noted on PLANS. All material placed in such trenches shall be in accordance with the above standards.

**MANHOLES, CATCH BASIN, INLETS & VALVE VAULTS**

All Manholes, Catch Basins, Inlets, and Valve Vaults shall be constructed of reinforced precast concrete ring construction with tongue and groove joints in conformance with the latest revision of ASTM designation C-478. All joints between sections and frames (except sanitary manholes, see Section IIIB Manholes, below) shall be sealed with mastic type bituminous jointing compound. CONTRACTOR shall remove all excess mastic on inside of structure and butter joints with mortar. Manholes are to have offset cones except that no cone shall be used on storm manholes 6'-0" deep or less in which case a reinforced concrete flat top section shall be used, and Valve Vaults shall have concentric cones. Only concrete adjustment rings will be permitted where necessary and shall be limited to two adjustment rings totaling not more than 8" in height. All manholes and catch basin steps shall be copolymer polypropylene with continuous ½" steel reinforcement as manufactured by MA Industries, or approved equal.

* **AUGER/BORING AND CASING - INTENTIONALLY OMITTED**

* **AUGER (OPEN BORE) - INTENTIONALLY OMITTED**

**HORIZONTAL AND VERTICAL SEPARATION OF WATER AND SEWER MAINS**

Horizontal and vertical separation of water and sewer mains shall be in accordance with Standard Specifications for Water and Sewer Construction in Illinois Section 41-2.01A and 41-2.01B and Standard Drawing 18, 19, 20, 21, 22, 23 and 24.

**STRUCTURE ADJUSTMENTS**

Structures shall be adjusted to the finished grade as shown on PLANS.

### * B. SANITARY SEWERS AND APPURTENANCES - INTENTIONALLY OMITTED

### * C. WATER MAINS AND APPURTENANCES - INTENTIONALLY OMITTED

### D. STORM SEWERS AND APPURTENANCES

* **STORM SEWER PIPE**

Storm sewer pipe shall conform to the following:

(1) Reinforced concrete pipe minimum Class IV in conformance with the latest revision of ASTM designation C76 with C361 or C443 flexible gasket joints, except that bituminous mastic joints may be used in grass areas.

(2) Polyvinyl Chloride (PVC) Pipe: ASTM D3034 (4-inch thru 15-inch) or ASTM F679 (18-inch thru 36-inch), rated SDR 35, continually marked with manufacturer's name, pipe size, cell classification, SDR rating. Joints shall be flexible elastomeric seals conforming to ASTM D3212.

(3) Ductile Iron Pipe (DIP) shall conform to ANSI/AWWA C151/21.5, Class 50 cement lined with push on type joints conforming to ANSI/AWWA C111/A21.11.

Precast tees, bends, and manholes may be used if permitted by the JURISDICTIONAL GOVERNMENTAL ENTITY.

Storm sewers may be constructed with reinforced concrete pipe using only flexible gasket joints (ASTM 361 or 443) for water main crossings.

Storm sewer shall include bedding and trench backfill.

**MANHOLES, INLETS & CATCH BASINS**

Manholes, Inlets and Catch Basins shall be constructed in conformance with Section IIIA Manholes, etc. above. The space between connecting pipes and the wall of the manhole shall be completely filled with non-shrink hydraulic cement mortar. Frames and lids shall be Neenah or approved equal unless specified otherwise on the PLANS. All frames and grates shall be provided such that the flange fully covers the opening plus 2" of the structure as a minimum. * Provide **"Vane"** Type frame & grate for all structures located in curb where gradient exceed 2.0%. Manholes shall include steps, frame & grate, bedding and trench backfill.

**FLARED END SECTION**

Flared end sections shall be pre-cast reinforced concrete flared end section with an end block cast separate as per the Illinois Department of Transportation Standard 542301 and shall be installed where shown on the PLANS. All flared end sections for storm sewers 12" in diameter and larger shall be installed with a grating per Standard 542311 and/or as detailed on the PLANS. Work shall include end block.

**RIP RAP**

Stone rip rap consisting of pieces of "A" quality stone 4" to 8" in diameter shall be furnished and installed in accordance with IDOT Specifications and shall be placed where shown on the plans, to a minimum thickness of 12" and a width as indicated on the plans. Broken concrete or concrete blocks will not be acceptable.

**FOUNDATION, BEDDING AND HAUNCHING**

Foundation, Bedding and Haunching shall be wet coarse aggregate or moist fine aggregate in accordance with the above standards and placed as shown on the detail.

**UNDERDRAINS**

Pipe underdrains shall be corrugated flexible plastic pipe conforming to AASHTO Designation M252 perforated corrugated polyethylene pipe (PE) with a smooth interior of the diameter indicated on the PLANS and wrapped in a soil filter fabric supplied and installed by the CONTRACTOR. Perforations may be circular or slotted, but shall provide a minimum inlet area of 1.0 square inch per 2.0 linear feet of pipe. CONTRACTOR shall submit fabric and pipe catalogue Specifications for approval by the CLIENT. CONTRACTOR shall bed and backfill the underdrain in one of the following IDOT gradations of aggregate (CA-5, CA-7, CA-11, CA-14 or CA-15).

**MISCELLANEOUS**

(1) All existing field drainage tile or storm sewers encountered or damaged during construction shall either be restored to their original condition, properly rerouted and/or connected to the storm sewer system.

(2) Footing drains shall be connected to sump pumps or discharged directly into storm sewers. Footing drains or drainage tile shall not be connected to the sanitary sewer.

* **CONNECTION FOR STORM SERVICE TO STORM MAIN - INTENTIONALLY OMITTED**

## IV. ROADWAY AND PARKING LOT IMPROVEMENTS

**STANDARDS**

Work shall be completed in accordance with the applicable sections of the Standard Specifications for Road and Bridge Construction, Department of Transportation, State of Illinois, latest edition (hereinafter referred to collectively as the "Standard Specifications") except as modified below and except that payment will be defined as detailed in the contract documents between the CLIENT and the CONTRACTOR. Supplementing the Standard Specifications shall be the applicable sections of the latest editions of the "Supplemental Specifications and Recurring Special Provisions", the "Manual on Uniform Traffic Control Devices for Streets and Highways" and the Illinois Supplement thereto, (hereinafter referred to collectively as the "MUTCD"). Any references to "ENGINEER" in the "Standard Specifications" shall be interpreted as the CLIENT or CLIENT's Construction Representative.

**SUBGRADE PREPARATION**

The CONTRACTOR shall be responsible for all subgrade compaction and preparation to the lines and grades shown on the plans.

**AGGREGATE BASE COURSE TYPE 'B'**

Aggregate Base Course Type B shall be limited to CA-6 or CA-10 gradation. Aggregate base courses shall be proof rolled as outlined below.

**PROOF ROLL**

The CONTRACTOR shall proof roll the subgrade with either a 2-axle truck loaded to 27,000 lbs. Or a 3-axle truck loaded to 45,000 lbs. or as specified by the JURISDICTIONAL GOVERNING ENTITY. The CLIENT and JURISDICTIONAL GOVERNING ENTITY shall observe and approve the proof rolling of the subgrade and the base course. Proof rolling tolerances shall be a maximum deflection of 1" for the subgrade and ½" for the base course. The above criteria is intended as a maximum deflection standard and that proof rolling of a majority of the area will have less deflection than specified above. In any case of deficiency, the subgrade and/or base course shall be repaired and retested before proceeding with the pavement construction.

Pavement subgrade material shall not be removed, placed or disturbed after proof roll testing has been completed prior to the pavement construction. Additional testing will be required if the pavement subgrade is disturbed and/or material is removed from or placed on the pavement subgrade after proof rolling approval.

Trucks or heavy equipment shall not travel on any pavement subgrade after final testing prior to pavement construction.

* **HOT-MIX ASPHALT BASE COURSE - INTENTIONALLY OMITTED**

**HOT-MIX ASPHALT BINDER AND SURFACE COURSE**

HMA binder and surface courses, shall be constructed to the compacted thickness as shown on the PLANS. The base course shall be cleaned and primed in accordance with the JURISDICTIONAL GOVERNING ENTITY. The surface course shall be placed after the base and courses have gone through one winter season, or as directed by the CLIENT. Before applying the surface course, the binder course shall be thoroughly cleaned and primed in accordance with the JURISDICTIONAL GOVERNING ENTITY. Prior to the placement of the surface course, the JURISDICTIONAL GOVERNING ENTITY shall examine the completed pavement, including curb and gutter, and all failures shall be corrected by the CONTRACTOR.

**CONCRETE PAVEMENTS**

Concrete pavements shall be constructed in accordance with American Concrete Institute Standard ACI330R-08 and as shown on the PLANS.

Slabs and driveway aprons shall be constructed with 6" x 6" - W1.4 x W1.4 welded wire fabric positioned on steel chair supports. Placing fabric during the concrete pouring operation will not be allowed.

Sawing of joints shall commence as soon as the concrete has cured and hardened sufficiently to permit sawing without excessive raveling, but no later than eight hours after the concrete has been placed. All joints shall be sawed to a depth equal to 1/3 of the pavement thickness before uncontrolled shrinkage cracking take place. If necessary, the sawing operation shall occur during the day or at night, regardless of weekends, holidays or weather conditions. The CONTRACTOR shall be aware of jurisdictional noise ordinances and holiday restrictions for scheduling purposes.

The CONTRACTOR is responsible to guard fresh concrete until it sets and hardens sufficiently to prevent people from writing, walking, riding bicycles or otherwise permanently marking, defacing or causing depressions of any type in the concrete. Any concrete so marked will be removed and replaced by the CONTRACTOR at the CONTRACTOR's expense.

The CONTRACTOR shall protect the pavement against all traffic, including that of their own employees or other workers, until test specimens have attained the specified strength.

**SIDEWALKS**

Concrete sidewalks shall be constructed to width and thickness as shown on the PLANS. Sidewalks shall be thickened to a minimum of 6" at all driveways. All sidewalks shall be IDOT Class SI concrete, on aggregate base as shown on the detail. A ¾" expansion joint shall be provided when meeting existing sidewalk.

**CURB AND GUTTER**

Curb and gutter shall be as per the detail shown on the PLANS, which shall include compacted aggregate base course under the curb and gutter. All contraction and expansion joints shall be constructed as per the detail.

**CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT**

The CONTRACTOR shall saw cut and remove the existing concrete curb where shown on the PLANS and install a curb of similar cross section and pavement to that removed (or depressed curb and gutter if shown on the PLANS). Upon completion of the curb and gutter any voids between the existing pavement and the new curb shall be filled with concrete to within 2" of the final surface, which is to be filled with bituminous pavement. The area behind the curb shall be filled and compacted with embankment material within 6" of the top of the new curb. The CONTRACTOR shall then restore the remaining 6" to its original condition (i.e., sod, gravel, topsoil). Where proposed curb connects to an existing curb, the existing curb shall be saw cut and then two 18" long x ¾" (#6) dowel bars shall be drilled and installed 9" into the existing and proposed curb. Bars shall be installed in a location similar to the expansion joint in the curb.

**FRAME ADJUSTMENTS**

The road contractor shall be responsible for making final adjustments and the setting on a bituminous mastic jointing compound all castings located in the roadway, sidewalks, and parking areas prior to construction of any curbing, sidewalk, or final surface. Any structures that need to be lowered, or raised in excess of 4" shall be completed and the work backcharged against the underground contractor. This Contractor shall also be responsible for cleaning all of the above structures immediately upon completion of his phase of work. This work shall be incidental to the cost of the pavement.

**PAVEMENT MARKING - PAINT**

The CONTRACTOR shall furnish and apply painted marking lines, letters & symbols of the patterns, sizes and colors where shown on the PLANS. Paint pavement marking shall be applied in accordance with the IDOT Standard Specifications.

* **PAVEMENT MARKING - THERMOPLASTIC - INTENTIONALLY OMITTED**

**QUALITY CONTROL**

The CONTRACTOR shall provide all testing necessary to ensure improvements are in accordance with the project specifications and provide testing documentation that specifications were met.

## V. PRODUCTS

**BENCHES**

Product: Knight Bench, FSC 100% IPE hardwood slats, 8 foot, backed, surface mount bench by Forms + Surfaces.

1. Model: SBKNI-096B
2. As supplied by: Forms + Surfaces. contact Shawn Davison, territory manager, 1(800)451-0410, Shawn.Davidson@forms-surfaces.com.

A. Mounting: surface mount to concrete pad per manufacturer's recommendation with stainless steel, tamper-proof hardware.
B. Quantity: two (2)
C. Assemble and install in locations shown on plan.

ALL IDOT STANDARD AND DETAILS FOR CONSTRUCTION SHALL TAKE PRECEDENCE FOR WORK WITHIN THE STATE RIGHT OF WAY

SHOULD A CONFLICT ARISE BETWEEN MANHARD DETAILS AND THE VILLAGE OR IDOT DETAILS, THE VILLAGE OR IDOT DETAILS SHALL TAKE PRECEDENCE.

| DATE | REVISIONS | DRAWN BY |
|---|---|---|
| 02-09-22 | FINAL BID SET | NBA |

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Civil Engineers • Surveyors • Water Resource Engineers • Water & Wastewater Engineers
Construction Managers • Environmental Scientists • Landscape Architects • Planners

PEDESTRIAN AND BICYCLE PATHWAY
OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS
CONSTRUCTION SPECIFICATIONS

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: REH
DATE: 05-04-21
SCALE: N.T.S.

SHEET 27 OF 30
OCCDPIL10

ISSUED FOR BID

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February 9, 2022 – 13:55 Dwg Name: p:\occdpil10\dwg\Eng\final drawings\Plan Set\27-SPECS.dwg Updated By: ASanchez

A. REFERENCED SPECIFICATIONS

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:
   * STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * CITY OF DES PLAINES MUNICIPAL CODE;
   * THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL;
   * IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

B. NOTIFICATIONS

1. THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055).
2. THE CITY OF DES PLAINES ENGINEERING DEPARTMENT AND PUBLIC MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.
3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED. CALL J.U.L.I.E. AT 1-800-892-0123.

C. GENERAL NOTES

1. ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). CONVERSION FACTOR IS NOT APPLICABLE.
2. MWRD, THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.
3. THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.
4. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.
5. THE LOCATION OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.
6. ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.
7. MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWRD, AND OWNER.
8. THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.
9. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.
10. RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.

D. SANITARY SEWER

1. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.
2. A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.
3. DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.
4. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).
5. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.
6. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.
7. ALL SANITARY SEWER PIPE MATERIALS AND JOINTS (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO THE FOLLOWING:

| PIPE MATERIAL | PIPE SPECIFICATIONS | JOINT SPECIFICATIONS |
|---|---|---|
| VITRIFIED CLAY PIPE | ASTM C-700 | ASTM C-425 |
| REINFORCED CONCRETE SEWER PIPE | ASTM C-76 | ASTM C-443 |
| CAST IRON SOIL PIPE | ASTM A-74 | ASTM C-564 |
| DUCTILE IRON PIPE | ANSI A21.51 | ANSI A21.11 |
| POLYVINYL CHLORIDE (PVC) PIPE | | |
| 6-INCH TO 15-INCH DIAMETER SDR 26 | ASTM D-3034 | ASTM D-3212 |
| 18-INCH TO 27-INCH DIAMETER F/DY=46 | ASTM F-679 | ASTM D-3212 |
| HIGH DENSITY POLYETHYLENE (HDPE) | ASTM D-3350 | ASTM D-3261,F-2620 (HEAT FUSION) |
| | ASTM D-3035 | ASTM D-3212,F-477 (GASKETED) |
| WATER MAIN QUALITY PVC | | |
| 4-INCH TO 36-INCH | ASTM D-2241 | ASTM D-3139 |
| 4-INCH TO 12-INCH | AWWA C900 | ASTM D-3139 |
| 14-INCH TO 48-INCH | AWWA C905 | ASTM D-3139 |

THE FOLLOWING MATERIALS ARE ALLOWED ON A QUALIFIED BASIS SUBJECT TO DISTRICT REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE. A SPECIAL CONDITION WILL BE ADDED TO THE PERMIT WHEN THE PIPE MATERIAL BELOW IS USED FOR SEWER CONSTRUCTION OR A CONNECTION IS MADE.

| PIPE MATERIAL | PIPE SPECIFICATIONS | JOINT SPECIFICATIONS |
|---|---|---|
| POLYPROPYLENE (PP) PIPE | | |
| 12-INCH TO 24-INCH DOUBLE WALL | ASTM F-2736 | D-3212, F-477 |
| 30-INCH TO 60-INCH TRIPLE WALL | ASTM F-2764 | D3212, F-477 |

8. ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE ¼ " TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO ¼ THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-7, CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.
9. NON-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR PIPE MATERIALS.
10. ALL MANHOLES SHALL BE PROVIDED WITH BOLTED, WATERTIGHT COVERS. SANITARY LIDS SHALL BE CONSTRUCTED WITH A CONCEALED PICKHOLE AND WATERTIGHT GASKET WITH THE WORD "SANITARY" CAST INTO THE LID.
11. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
    a) A CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SHEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUBWYE SADDLE OR HUB-TEE SADDLE.
    b) REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
    c) WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.
12. WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.
13. ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.
14. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.
15. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE PRECAST "RUBBER BOOTS" THAT CONFORM TO ASTM C-923 FOR ALL PIPE CONNECTIONS. PRECAST SECTIONS SHALL CONSIST OF MODIFIED GROOVE TONGUE AND RUBBER GASKET TYPE JOINTS.
16. ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH AT LEAST 2 FEET LONG NON-SHRINK CONCRETE OR MORTAR PLUG.
17. EXCEPT FOR FOUNDATION/FOOTING DRAINS PROVIDED TO PROTECT BUILDINGS, OR PERFORATED PIPES ASSOCIATED WITH VOLUME CONTROL FACILITIES, DRAIN TILES/FIELD TILES/UNDERDRAINS/PERFORATED PIPES ARE NOT ALLOWED TO BE CONNECTED TO OR TRIBUTARY TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS IN COMBINED SEWER AREAS. CONSTRUCTION OF NEW FACILITIES OF THIS TYPE IS PROHIBITED; AND ALL EXISTING DRAIN TILES AND PERFORATED PIPES ENCOUNTERED WITHIN THE PROJECT AREA SHALL BE PLUGGED OR REMOVED, AND SHALL NOT BE CONNECTED TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS.
18. A BACKFLOW PREVENTER IS REQUIRED FOR ALL DETENTION BASINS TRIBUTARY TO COMBINED SEWERS. REQUIRED BACKFLOW PREVENTERS SHALL BE INSPECTED AND EXERCISED ANNUALLY BY THE PROPERTY OWNER TO ENSURE PROPER OPERATION, AND ANY NECESSARY MAINTENANCES SHALL BE PERFORMED TO ENSURE FUNCTIONALITY. IN THE EVENT OF A SEWER SURCHARGE INTO AN OPEN DETENTION BASIN TRIBUTARY TO COMBINED SEWERS, THE PERMITTEE SHALL ENSURE THAT CLEAN UP AND WASH OUT OF SEWAGE TAKES PLACE WITHIN 48 HOURS OF THE STORM EVENT.

E. EROSION AND SEDIMENT CONTROL

1. THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
2. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL PRIOR TO HYDROLOGIC DISTURBANCE OF THE SITE.
3. ALL DESIGN CRITERIA, SPECIFICATIONS, AND INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.
4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
5. INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
    a) UPON COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE.
    b) ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.
6. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE CO-PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.
7. A STABILIZED MAT OF CRUSHED STONE MEETING THE STANDARDS OF THE ILLINOIS URBAN MANUAL SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.
8. CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.
9. MORTAR WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ADDITION TO CONCRETE WASHOUT FACILITIES FOR ANY BRICK AND MORTAR BUILDING ENVELOPE CONSTRUCTION ACTIVITIES.
10. TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN. VOLUME CONTROL FACILITIES SHALL NOT BE USED AS TEMPORARY SEDIMENT BASINS.
12. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) DAYS.
13. ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).
14. VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.
15. SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS. SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PROTECTION AREAS OR THEIR BUFFERS.
16. EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.
17. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.
18. THE CONTRACTOR SHALL EITHER REMOVE OR REPLACE ANY EXISTING DRAIN TILES AND INCORPORATE THEM INTO THE DRAINAGE PLAN FOR THE DEVELOPMENT. DRAIN TILES CANNOT BE TRIBUTARY TO A SANITARY OR COMBINED SEWER. DRAIN TILES ALLOWED IN COMBINED SEWER AREA FOR GREEN INFRASTRUCTURE PRACTICES.
19. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE SITE INSPECTOR MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.
20. THE CONTRCTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATERMAINS AS WELL AS THEIR SERVICES AND OTHER APPURTENANCES. ANY TRENCH DEWATERING, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATERS SHALL NOT BE DISCHARGE TO WATERWAYS, FLOOD PROTECTION AREAS OR THE COMBINED SEWER SYSTEM.
21. ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.
22. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL PERMANENT STABILIZATION IS ACHIEVED.
23. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.
24. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, SITE INSPECTOR, OR MWRD.

TECHNICAL GUIDANCE MANUAL — 07/12/2016

MWRD GENERAL NOTES — STD. DWG. NO.18



January 22, 2021 – 17:27 Dwg Name: p:\occdpil10\dwg\Eng\final drawings\Plan Set\28-MWRD NOTES.dwg Updated By: CMeszaros

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Civil Engineers • Surveyors • Water Resource Engineers • Water & Wastewater Engineers
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PEDESTRIAN AND BICYCLE PATHWAY
OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS
MWRD GENERAL NOTES

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: ----
DATE: 05-04-21
SCALE: 1"=XX'

SHEET 28 OF 30
OCCDPIL10

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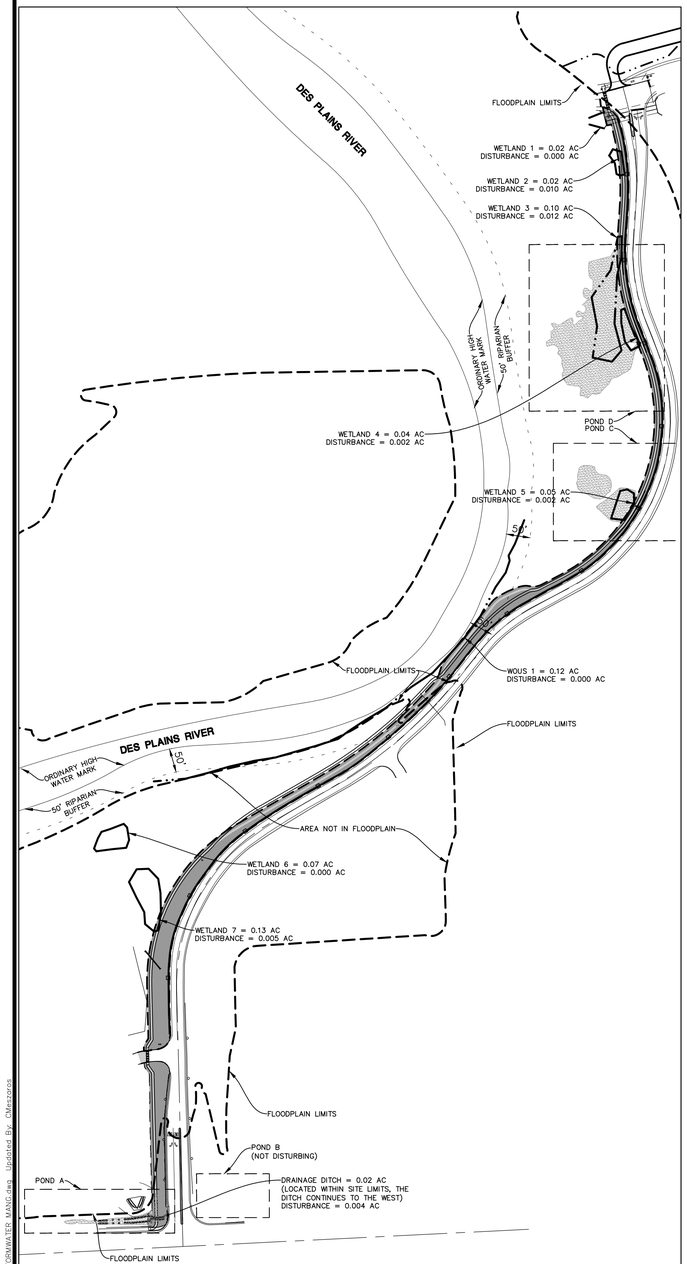
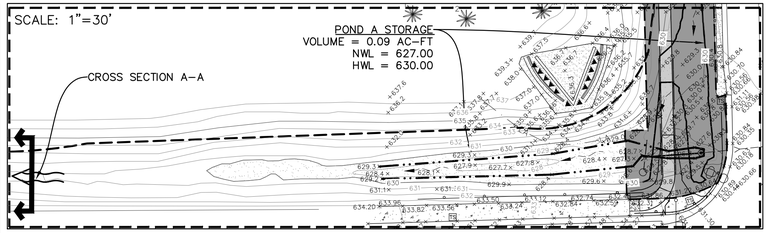
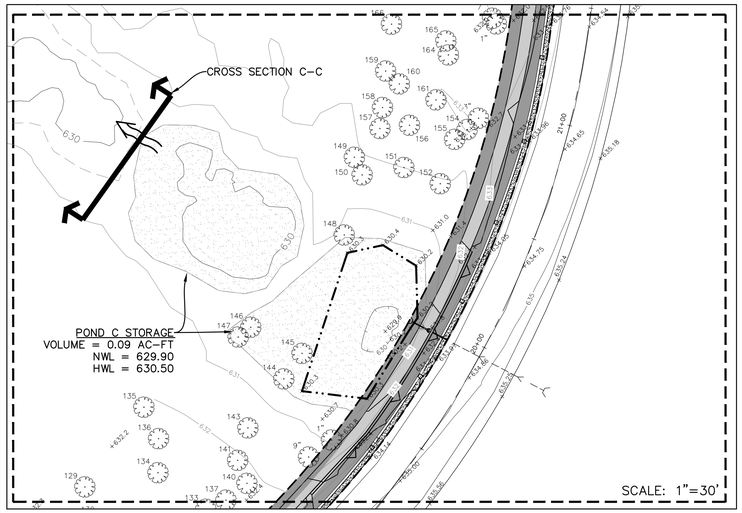


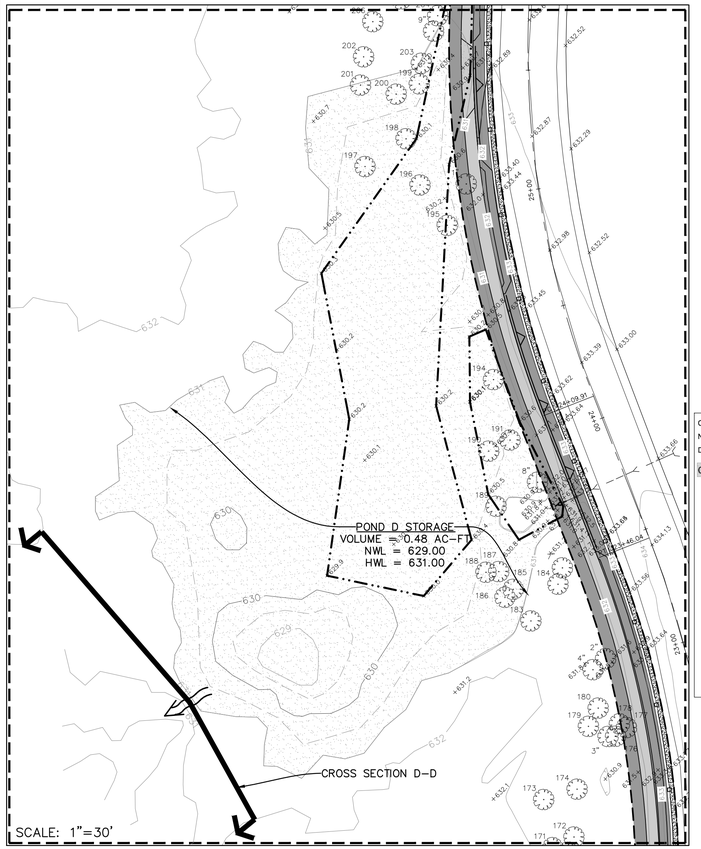

SCALE: 1"=150'

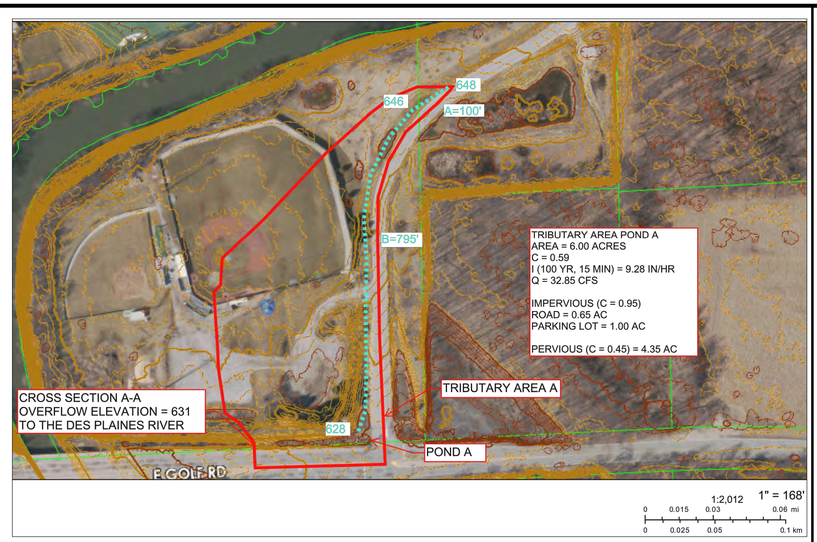
## LEGEND

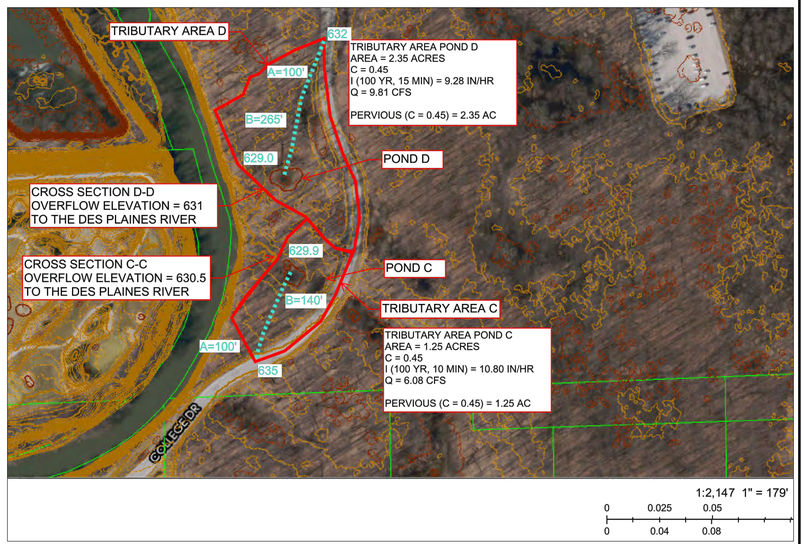
- LIMITS OF DISTURBANCE = 1.65 AC
  OVERALL CN = 84.5
- PROPOSED IMPERVIOUS AREA – SIDEWALK/ASHPALT
  CN = 98
  AREA = 0.33 AC
- PROPOSED IMPERVIOS AREA– GRAVEL SHOULDER
  CN = 91
  AREA = 0.13 AC
- EXISTING AND PROPOSED PERVIOUS AREA
  CN = 80
  AREA = 1.19 AC
- EXISTING STORMWATER MANAGEMENT FACILITIES
  (MAINTENANCE AREA)
- UNRESTRICTED AREA = AREA NOT TRIBUTARY TO PONDS A, C, AND D
  DRAINS UNRESTRICED TO THE DES PLAINES RIVER
- UPSTREAM OFF–SITE DRAINAGE AREA = NOT APPLICABLE, OAKTON COMMUNITY COLLEGE OWNS ALL UPSTREAM TRIBUTARY AREA
- WETLAND AREA
- LIMITS OF FLOODPLAIN PER FIRM PANEL, ELEVATION = ±636
- 50' RIPARIAN BUFFER



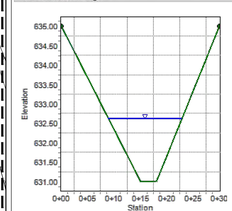




CROSS SECTION A–A
WEIR ELEVATION = 631.00
HGL = 632.62
LENGTH = 30'

| | | |
|---|---|---|
| Channel Slope | 0.01000 | ft/ft |
| Normal Depth | 1.62 | ft |
| Discharge | 32.85 | ft³/s |

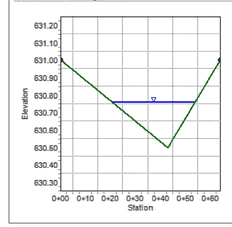
Cross Section Image




CROSS SECTION C–C
WEIR ELEVATION = 630.50
HGL = 630.75
LENGTH = 64'

| | | |
|---|---|---|
| Channel Slope | 0.05000 | ft/ft |
| Normal Depth | 0.26 | ft |
| Discharge | 6.08 | ft³/s |

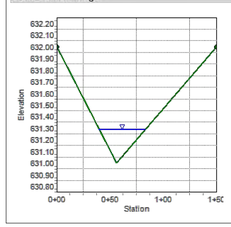
Cross Section Image




CROSS SECTION D–D
WEIR ELEVATION = 631.00
HGL = 631.29
LENGTH = 150'

| | | |
|---|---|---|
| Channel Slope | 0.05000 | ft/ft |
| Normal Depth | 0.29 | ft |
| Discharge | 9.81 | ft³/s |

Cross Section Image




| FLOOD CUT/FILL VOLUMES | | | |
|---|---|---|---|
| | FILL (AC-FT) | FILL*1.1 (AC-FT) | CUT (AC-FT) |
| 0-YR THRU 10-YR FLOOD | 0.08 | 0.09 | 0.11 |
| 10-YR THRU 100-YR FLOOD | 0.02 | 0.03 | 0.06 |

*REFER TO SHEETS 19 THRU 24 OF THIS PLAN SET FOR CROSS-SECTIONS

| DATE | REVISIONS | DRAWN BY |
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PEDESTRIAN AND BICYCLE PATHWAY

OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS

STORMWATER MANAGEMENT EXHIBIT

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: ----
DATE: 05–04–21
SCALE: 1"=XX'

SHEET 29 OF 30

OCCDPIL10

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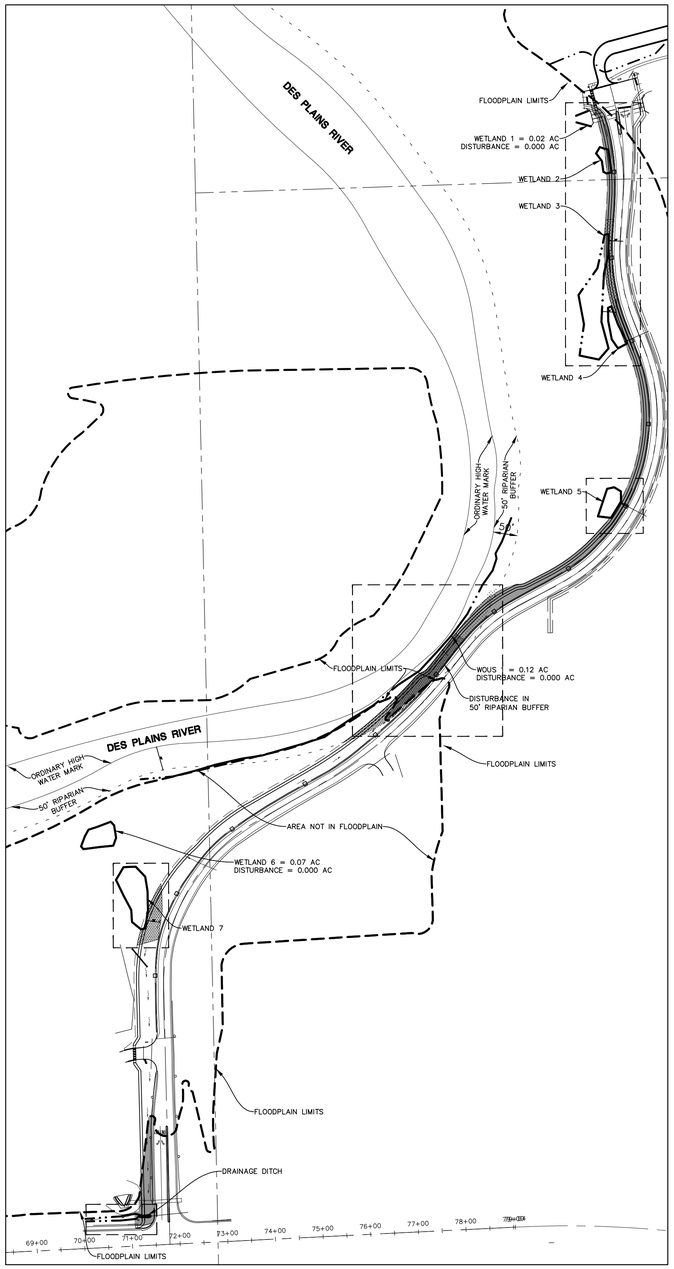


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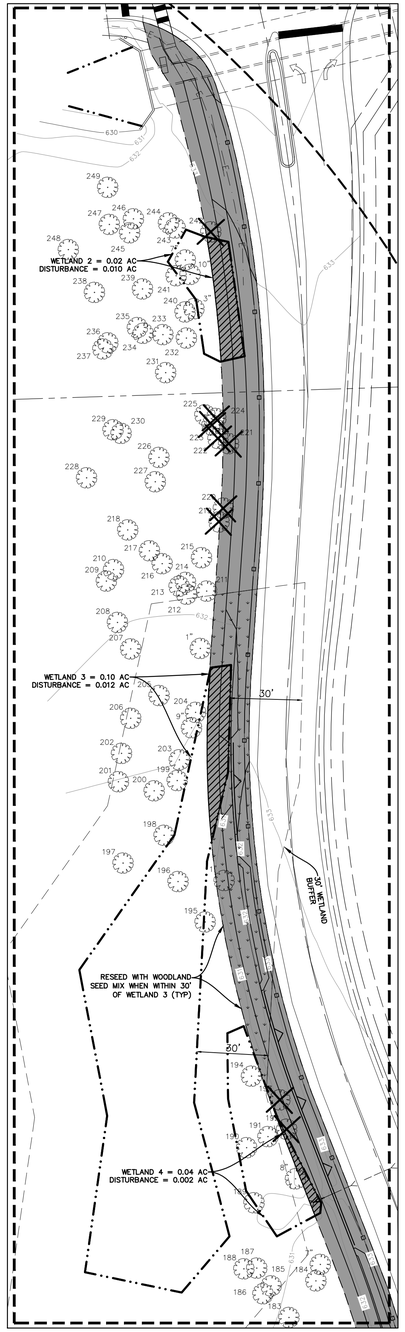


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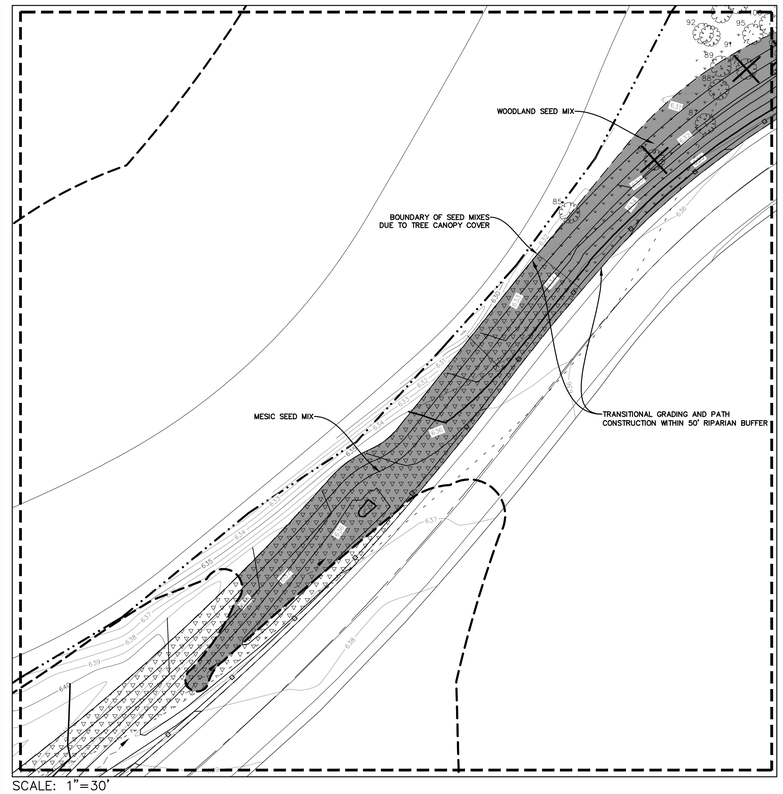


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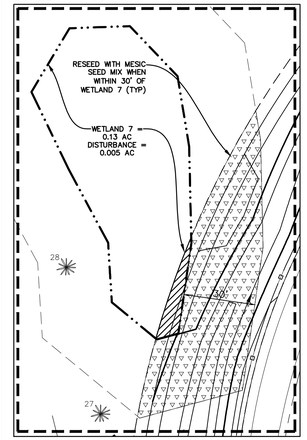


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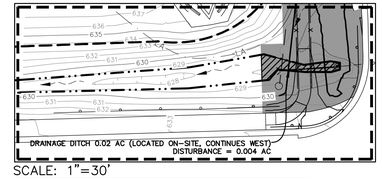


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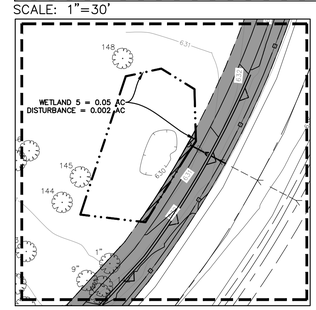


SCALE: 1"=30'

## LEGEND

- LIMITS OF DISTURBANCE = 1.65 AC
- AREA OF DISTURBANCE WITHIN THE FLOODWAY (REFER TO VOLUME TABLE) AREA = 0.82 AC
- OR — AREA OF DISTURBANCE WITHIN THE 50' RIPARIAN BUFFER (REFER TO BLOW UP DETAILS) AREA = 0.20 AC RESEED WITH MESIC OR WOODLAND SEED MIX PER BLOW UP
- AREA OF DISTURBANCE WITH WETLAND OR DRAINAGE DITCH (REFER TO BLOW UP DETAILS) RESEED WITH WETLAND EMERGENT SEED
- OR — AREA OF DISTURBANCE WITHIN THE 30' WETLAND BUFFER (REFER TO BLOW UP DETAILS) RESEED GREEN SPACE WITH MESIC OR WOODLAND SEED MIX PER BLOW UP
- WETLAND AREA
- LIMITS OF FLOODPLAIN PER FIRM PANEL, ELEVATION = ±636
- 50' RIPARIAN BUFFER

| FLOOD CUT/FILL VOLUMES | | | |
|---|---|---|---|
| | FILL (AC-FT) | FILL*1.1 (AC-FT) | CUT (AC-FT) |
| 0-YR THRU 10-YR FLOOD | 0.08 | 0.09 | 0.10 |
| 10-YR THRU 100-YR FLOOD | 0.02 | 0.02 | 0.04 |

*REFER TO SHEETS 19 THRU 24 OF THIS PLAN SET FOR CROSS-SECTIONS

| IDENTIFICATION | AREA (AC) | AREA OF DISTURBANCE (AC) | IMPACT DESCRIPTION | MITIGATION | WETLAND BUFFER |
|---|---|---|---|---|---|
| WETLAND 1 | 0.02 | 0.000 | N/A | N/A | NO BUFFER REQUIRED PER MWRD 603.10, < 0.10 AC |
| WETLAND 2 | 0.02 | 0.010 | PATH CONSTRUCTION AND TRANSITIONAL GRADING | RESEED GREEN SPACE WITH WETLAND EMERGENT SEED MIX | NO BUFFER REQUIRED PER MWRD 603.10, < 0.10 AC |
| WETLAND 3 | 0.10 | 0.012 | PATH CONSTRUCTION AND TRANSITIONAL GRADING | RESEED GREEN SPACE WITH WETLAND EMERGENT SEED MIX | 30', MITIGATE BUFFER WITH WOODLAND SEED MIX |
| WETLAND 4 | 0.04 | 0.002 | RELOCATED FLARED END SECTION CONSTRUCTION AND TRANSITIONAL GRADING | RESEED GREEN SPACE WITH WETLAND EMERGENT SEED MIX | NO BUFFER REQUIRED PER MWRD 603.10, < 0.10 AC |
| WETLAND 5 | 0.05 | 0.002 | RELOCATED FLARED END SECTION CONSTRUCTION AND TRANSITIONAL GRADING | RESEED GREEN SPACE WITH WETLAND EMERGENT SEED MIX | NO BUFFER REQUIRED PER MWRD 603.10, < 0.10 AC |
| WETLAND 6 | 0.07 | 0.000 | N/A | N/A | N/A, NO DISTURBANCE IN 30' BUFFER |
| WETLAND 7 | 0.13 | 0.005 | PATH CONSTRUCTION AND TRANSITIONAL GRADING | RESEED GREEN SPACE WITH WETLAND EMERGENT SEED MIX | 30', MITIGATE BUFFER WITH MESIC SEED MIX |
| TOTAL WETLANDS | 0.43 | 0.031 | SEE ABOVE | SEE ABOVE | SEE ABOVE |
| WOUS 1 | 0.12 AC LOCATED WITHIN SITE LIMITS | 0.000 | N/A | N/A | 50', REFER TO 50' RIPARIAN BUFFER AREA BELOW |
| 50' RIPARIAN BUFFER AREA | N/A | 0.200 | PATH CONSTRUCTION, FLARED END SECTION CONSTRUCTION, TRANSIONAL GRADING AND DEMOLISH TREE 86 (RED OAK IN POOR CONDITION PER TREE INVENTORY) | RESEED GREEN SPACE WITH MESIC OR WOODLAND SEED MIX BASED ON EXISTING CANOPY COVERAGE | N/A |
| DRAINAGE DITCH | 0.02 AC LOCATED WITHIN SITE LIMITS, THE DITCH CONTIUES TO THE WEST | 0.004 | PATH CONSTRUCTION, RETAINING WALL CONSTRUCTION, AND FLARED END CONSTRUCTION | N/A COORDINATING WITH IDOT | N/A |

**Wetland Emergent Seed Mix**
**Provided by Cardno or Equal**
***Note: Double installation rates shown below***
***Application Rate (including cover crop)*** ***34.38 PLS Lbs/AC***

| Botanical Name | Common Name | Ounces/Acre (PLS) |
|---|---|---|
| **Permanent Grasses:** | | |
| *Bolboschoenus fluviatilis* | River Bulrush | 1.00 |
| *Carex comosa* | Bristly Sedge | 2.50 |
| *Carex lacustris* | Common Lake Sedge | 0.25 |
| *Carex lurida* | Bottlebrush Sedge | 4.00 |
| *Carex stricta* | Common Tussock Sedge | 1.00 |
| *Carex vulpinoidea* | Brown Fox Sedge | 6.00 |
| *Eleocharis palustris* | Great Spike Rush | 1.00 |
| *Juncus effusus* | Common Rush | 1.00 |
| *Leersia oryzoides* | Rice Cut Grass | 3.00 |
| *Schoenoplectus acutus* | Hard-stemmed Bulrush | 2.50 |
| *Schoenoplectus americanus* | Chairmaker's Rush | 3.00 |
| *Schoenoplectus tabernaemontani* | Softstem Bulrush | 6.00 |
| | Total | 31.25 |
| **Forbs:** | | |
| *Acorus americanus* | Sweet Flag | 0.50 |
| *Alisma spp.* | Water Plantain (Various Mix) | 2.00 |
| *Asclepias incarnata* | Swamp Milkweed | 1.50 |
| *Cephalanthus occidentalis* | Buttonbush | 6.00 |
| *Decodon verticillatus* | Swamp Loosestrife | 0.50 |
| *Eutrochium maculatum* | Spotted Joe-Pye Weed | 0.50 |
| *Hibiscus spp.* | Rosemallow (Various Mix) | 4.00 |
| *Iris virginica* | Blue Flag | 6.00 |
| *Lobelia cardinalis* | Cardinal Flower | 0.25 |
| *Lobelia siphilitica* | Great Blue Lobelia | 0.25 |
| *Lycopus americanus* | Common Water Horehound | 0.25 |
| *Mimulus ringens* | Monkey Flower | 1.00 |
| *Peltandra virginica* | Arrow Arum | 16.00 |
| *Penthorum sedoides* | Ditch Stonecrop | 0.50 |
| *Polygonum spp.* | Pinkweed (Various Mix) | 0.50 |
| *Pontederia cordata* | Pickerel Weed | 10.00 |
| *Sagittaria latifolia* | Common Arrowhead | 2.00 |
| *Sparganium eurycarpum* | Common Bur Reed | 6.00 |
| *Verbena hastata* | Blue Vervain | 1.00 |
| | Total | 58.75 |
| **Temporary Cover:** | | |
| *Avena sativa* | Common Oat | 360.00 |
| *Lolium multiflorum* | Annual Rye | 100.00 |
| | Total | 460.00 |

Notes:
1) For best results install Myco Seed Treat inoculum to above seed mix at 4 oz per 100 lbs of seed, or equal
2) Install proper erosion control (blanket or heavy hydro-mulching) immediately after installation
3) Do not seed in standing water. If location has perpetually standing water install plugs
4) If site needs to be well vegetated in first season, install Echinochloa crus-galli at 2lbs/ac. Manage closely

**Mesic Prairie Seed Mix**
**(CARDO)**

| Botanical Name | Common Name | PLS Ounces/Acre |
|---|---|---|
| **Permanent Grasses:** | | |
| *Andropogon gerardii* | Big Bluestem | 12.00 |
| *Bouteloua curtipendula* | Side-Oats Grama | 16.00 |
| *Carex spp.* | Prairie Sedge Species | 3.00 |
| *Elymus canadensis* | Canada Wild Rye | 24.00 |
| *Panicum virgatum* | Switch Grass | 2.50 |
| *Schizachyrium scoparium* | Little Bluestem | 32.00 |
| *Sorghastrum nutans* | Indian Grass | 12.00 |
| | Total | 101.50 |
| **Temporary Cover:** | | |
| *Avena sativa* | Common Oat | 360.00 |
| *Lolium multiflorum* | Annual Rye | 100.00 |
| | Total | 460.00 |
| **Forbs:** | | |
| *Asclepias syriaca* | Common Milkweed | 1.00 |
| *Asclepias tuberosa* | Butterfly Weed | 1.00 |
| *Chamaecrista fasciculata* | Partridge Pea | 10.00 |
| *Coreopsis lanceolata* | Sand Coreopsis | 6.00 |
| *Echinacea purpurea* | Broad-Leaved Purple Coneflower | 8.00 |
| *Heliopsis helianthoides* | False Sunflower | 0.25 |
| *Monarda fistulosa* | Wild Bergamot | 0.50 |
| *Penstemon digitalis* | Foxglove Beard Tongue | 1.00 |
| *Ratibida pinnata* | Yellow Coneflower | 4.00 |
| *Rudbeckia hirta* | Black-Eyed Susan | 8.00 |
| *Solidago speciosa* | Showy Goldenrod | 0.50 |
| *Symphyotrichum laeve* | Smooth Blue Aster | 1.00 |
| *Symphyotrichum novae-angliae* | New England Aster | 0.50 |
| | Total | 41.75 |

**Woodland Species Seed Mix**

| Species | Common Name | Oz/Acre |
|---|---|---|
| **Grammoid** | | |
| *Bromus pubescens* | Hairy woodland brome | 3.00 |
| *Carex blanda* | Common woodland sedge | 2.00 |
| *Carex davisii* | Awned Graceful Sedge | 3.00 |
| *Carex normalis* | Oval sedge | 2.00 |
| *Cinna arundinacea* | Wood reed | 3.00 |
| *Elymus virginicus* | Virginia wildrye | 5.00 |
| *Festuca subertcillata* | Nodding fescue | 2.00 |
| *Glyceria striata* | Fowl manna grass | 2.00 |
| *Hystrix patula* | Bottebursh grass | 8.00 |
| **Total Ounces** | | **30.00** |

| Forbs | Common Name | Oz/Acre |
|---|---|---|
| *Agastache scrophulariaefolia* | Purple giant hyssop | 2.00 |
| *Agastache nepetoides* | Yellow giant hyssop | 2.00 |
| *Anemone canadensis* | Canadian anemone | 2.00 |
| *Eutrochium purpureum* | Purple joe pye weed | 2.00 |
| *Geranium maculatum* | Spotted geranium | 1.00 |
| *Heracleum maximum* | Short's aster | 2.00 |
| *Hydrophyllum virginianum* | Virginia Waterleaf | 4.00 |
| *Lycopus americanus* | American water horehound | 1.00 |
| *Monarda fistulosa* | Wild bergamot | 2.00 |
| *Penstemon calycosus* | Smooth beard tongue | 2.00 |
| *Penstemon digitalis* | Foxglove beard tongue | 2.00 |
| *Rudbeckia subtomentosa* | Sweet Black-eyed Susan | 2.00 |
| *Symphyotrichum lateriflorum* | Calico aster | 2.00 |
| *Symphyotrichum shortii* | Short's aster | 2.00 |
| *Thalictrum dioicum* | Early meadow-rue | 2.00 |
| *Tradescantia ohiensis* | Common spiderwort | 4.00 |
| *Zizia aurea* | Golden Alexanders | 3.50 |
| **TotalOunces** | | **37.50** |

| DATE | REVISIONS | DRAWN BY |
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Construction Managers • Environmental Scientists • Landscape Architects • Planners


# PEDESTRIAN AND BICYCLE PATHWAY
# OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS
# FLOODPLAIN-FLOODWAY, WETLAND AND RIPARIAN EXHIBIT

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: ----
DATE: 05-04-21
SCALE: 1"=XX'

SHEET 30 OF 30
OCCDPIL10

ISSUED FOR BID

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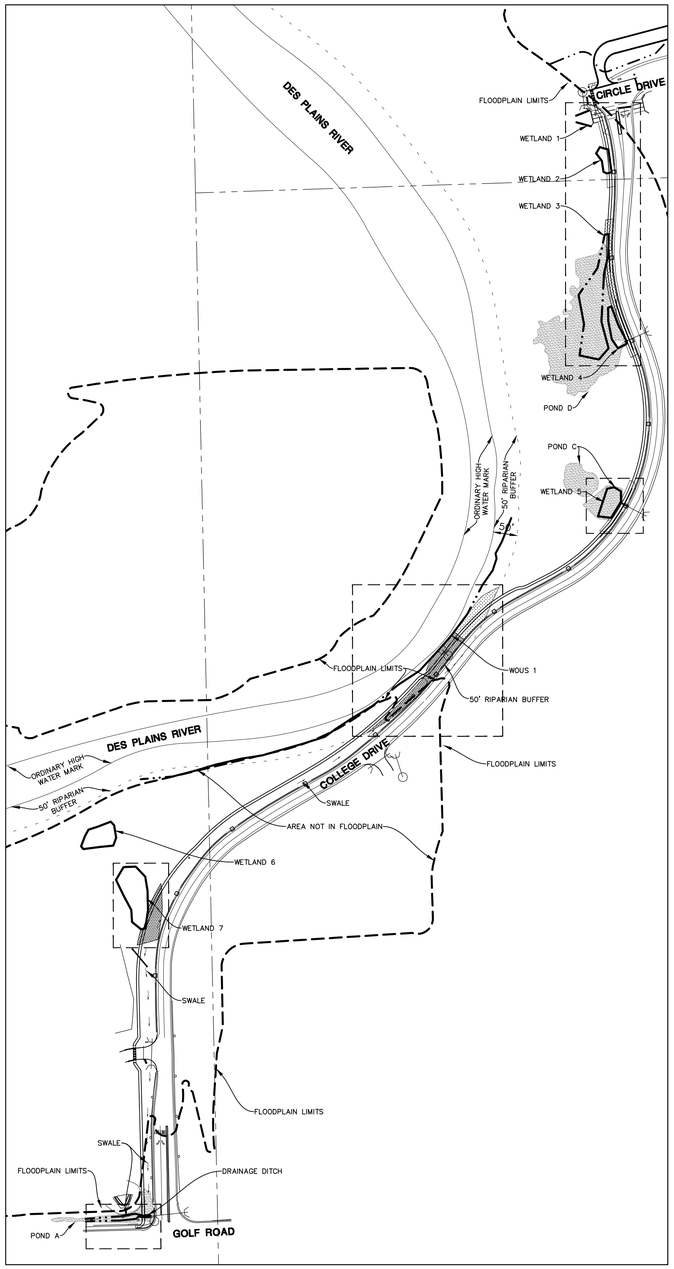
November 12, 2021 - 16:24 Dwg Name: p:\occdpil10\dwg\Ecol\final drawings\Plan Set\10-FLOODPLAIN-WAY.dwg Updated By: NAdelante

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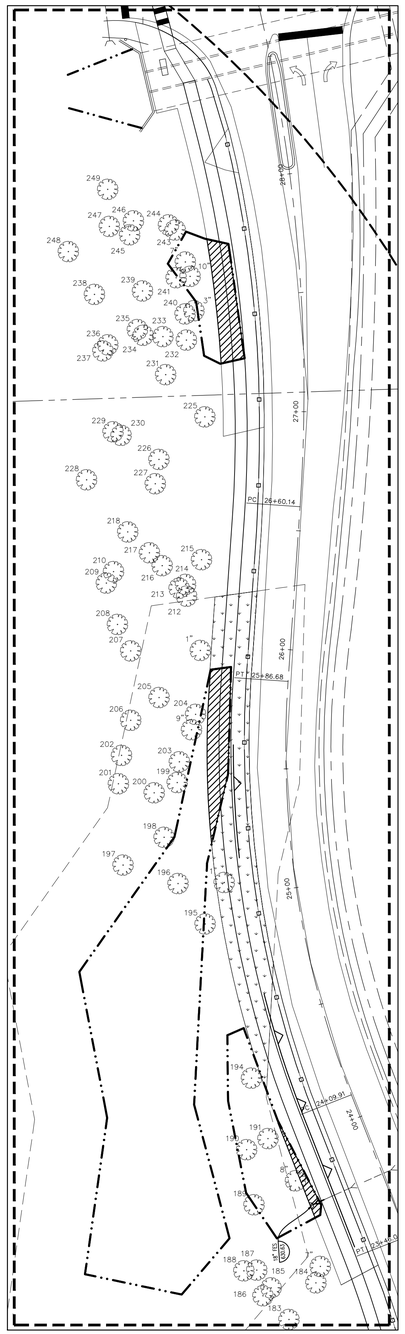


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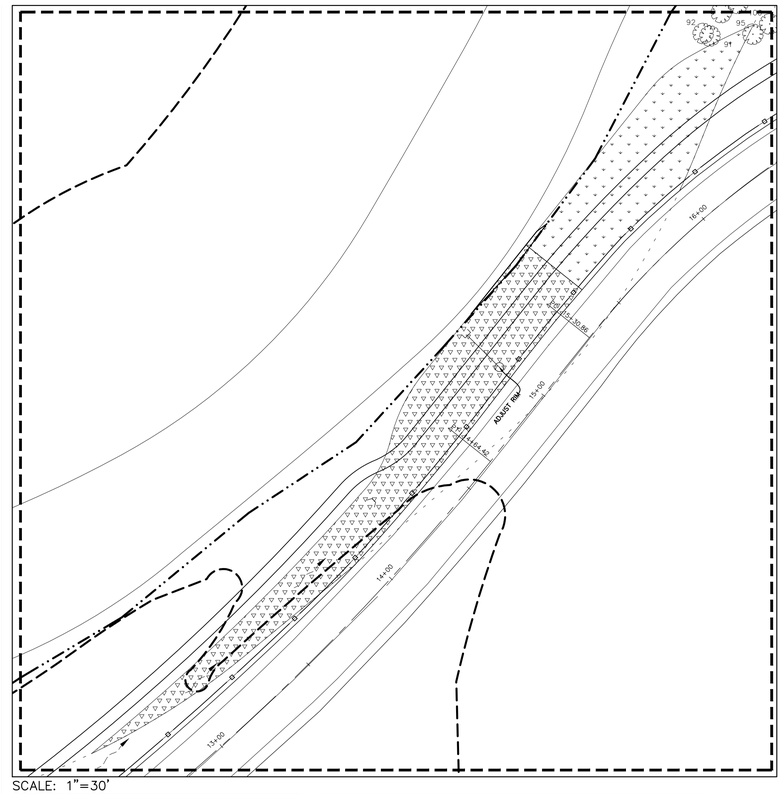


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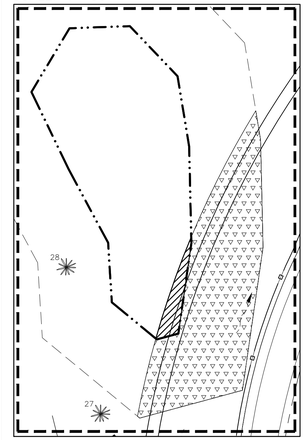

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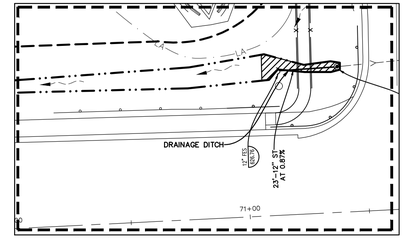


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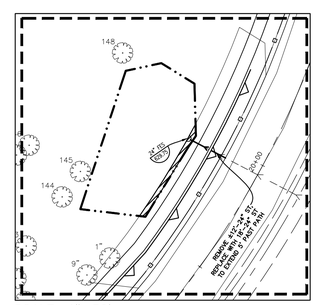


SCALE: 1"=30'

## LEGEND

- LIMITS OF DISTURBANCE = 1.65 AC
- RESEED WITH WETLAND EMERGENT SEED (AS NEEDED)
- RESEED WITH MESIC SEED (AS NEEDED)
- RESEED WITH WOODLAND SEED (AS NEEDED)
- EXISTING STORMWATER MANAGEMENT FACILITIES (MAINTENANCE AREA)
- STORM SEWER
- WETLAND AREA
- LIMITS OF FLOODPLAIN PER FIRM PANEL, ELEVATION = ±636
- 50' RIPARIAN BUFFER OR 30' WETLAND BUFFER (REFER TO BLOW UP)

## MAINTENANCE PLAN FOR PEDESTRIAN AND BICYCLE ALONG COLLEGE DRIVE

The Owner of the Pedestrian and Bicycle Pathway along College Drive, with facilities as shown on this Maintenance and Monitoring Exhibit, shall assume responsibility for the following perpetual maintenance activities:

1. General

Regular inspections and routine maintenance of general areas shall be performed on a monthly or as-needed basis. Specific items of concern include:

- Litter and debris shall be controlled
- Landscaped areas shall be maintained with regular mowing and restored with appropriate seeding/vegetation as necessary Accumulated sediment shall be disposed of properly, along with any wastes generated during maintenance operations
- Riprap areas shall be repaired with the addition of new riprap, as necessary, of similar size and shape
- Roads shall be swept, vacuumed and/or washed on a regular basis

2. Stormwater Management Facilities

All components of the stormwater management facilities shall be checked monthly between March and November and maintained as necessary to ensure proper performance. It is critical that all inflows and outflows to the detention facility are clean and performing as designed. In addition, the design volume of the detention facility shall also be maintained. Inspections for the following specific items should be conducted monthly between March and November:

Side Slopes/Embankment/Emergency Overflow Structure

- Inspect embankments for settlement and erosion
- Remove woody growth from the embankment
- Any breaks, hire Registered professional Engineer for design resolution
- Seed and sod any eroded areas
- Signs of piping (leakage) or seepage, repair
- Stabilize emergency overflow structure if erosion observed
- Remove obstructions blocking emergency overflow spillway

Vegetated Areas

- Regular mowing to control vegetation, no cutting of native vegetation
- Need for planting, reseeding or sodding. Supplement alternative native vegetation if a significant portion has not established (50% of the surface area). Reseed with alternative grass species if original grass cover has not successfully established.
- Evidence of grazing, motorbikes or other vehicles, repair
- Check for invasive vegetation, remove where possible
- All vegetation must be maintained per the approved planting plan

Access for Maintenance Equipment

Remove any obstructions placed in maintenance easements

Safety Features

- Access controls to hazardous areas
- Fences
- Loose or damaged posts
- Loose or broken wires
- Condition of gates
- Signs

Detention Volume

- Inspect all stormwater detention facilities to ensure that the constructed volume for detention is maintained. No sediment, topsoil, or other dumping into the facility shall be allowed. Specific locations in the stormwater management system, designed to accumulate sediment, shall be dredged as necessary to prevent sediment from reaching the invert of any gravity outlet pipe.

3. Stormwater Collection System

The Owner shall perform monthly inspections of all components of the stormwater collection system. The monthly inspection shall occur between March and November and include the following specific areas of concern:

Storm Sewers/Culverts

- Visually inspect pipes by removing manhole lids, make repairs as necessary Storm sewers and culverts shall be checked for siltation deposits at inlets, outlets, and within the conduit, clean out as necessary Restore riprap at outfalls if erosion observed
- Restore riprap at outfalls
- Replant and reseed any eroded areas

Overland Flow Routes (Ditches/Swales)

- Annual visual inspections shall be performed that verify the design capacity of the overland flow routes is maintained. The slope and cross-sectional area of the ditch/swale shall be verified during this inspection. Remove any obstructions that have been placed in the drainage path
- Seed and sod any eroded areas
- Restore riprap as necessary
- Regrade to provide positive drainage as necessary
- Regular mowing to control vegetation

4. Vegetated Areas

Need for planting, reseeding, or sodding. Supplement alternative native vegetation if a significant portion has not established (50% of the surface area after second growing season). Reseed with alternative native grass species if original grass cover has not successfully established.

- Evidence of grazing, motorbikes, or other vehicles, repair.
- Check for invasive vegetation, remove when possible. Regular mowing to control vegetation; is recommended that native vegetation remain uncut.
- Dead or damaged non-native grassy areas -- repair with seeding with fertilization or seeding with mulch.
- Compensatory storage area shall be reseeded with appropriate vegetation according to the approved planting plan.

## PROJECT SITE SUMMARY

**PROPERTY LOCATION:**
WEST SIDE OF COLLEGE DRIVE FROM GOLF ROAD TO CIRCLE DRIVE IN DES PLAINES, IL

**PROPERTY INDEX NUMBER(S):**
09-08-400-013
09-09-300-021
09-09-300-004
09-08-200-006

**TOTAL CONTIGUOUS OWNERSHIP:** 171.4 ACRES

**DEVELOPMENT AREA:** 1.65 ACRES

## FLOOD CUT/FILL VOLUMES

| | FILL (AC-FT) | FILL*1.1 (AC-FT) | CUT (AC-FT) |
|---|---|---|---|
| 0-YR THRU 10-YR FLOOD | 0.08 | 0.09 | 0.11 |
| 10-YR THRU 100-YR FLOOD | 0.02 | 0.03 | 0.06 |

*REFER TO SHEETS 19 THRU 24 OF THIS PLAN SET FOR CROSS-SECTIONS

| DATE | REVISIONS | DRAWN BY |
|---|---|---|
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| - | - | - |
| 11-10-21 | ISSUED FOR BIDS | NBA |

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# PEDESTRIAN AND BICYCLE PATHWAY
# OAKTON COMMUNITY COLLEGE - DES PLAINES CAMPUS
# MAINTENANCE AND MONITORING EXHIBIT

PROJ. MGR.: DBM
PROJ. ASSOC.: JWS
DRAWN BY: CRM
DATE: 05-04-21
SCALE: 1"=30'

SHEET 30A OF 30
OCCDPIL10

ISSUED FOR BID

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June 17, 2021 – 13:43 Dwg Name: p:\occdpil10\dwg\Eng\final drawings\Plan Set\30A-MAINTENANCE EXHIBIT.dwg Updated By: Olexizong