CITY-WIDE TRAIL UPGRADES - IOWA RIVERFRONT

CITY PROJECT NO. PR 24-02

CITY OF COUNCIL BLUFFS, IOWA

ESTIMATED QUANTITIES

ITEM NO.	ITEM CODE	DESCRIPTION	ESTIMATED QUANTITY
1.	8030-1.08-A	TEMPORARY TRAFFIC CONTROL	1.00 LS
2.		TEMPORARY ORANGE SAFETY FENCING	480.00 LF
3.	11050-1.08-A	CONCRETE WASHOUT AREA	1.00 LS
4.		SURFACE PREPARATION	7,269.00 SY
5.	7021-1.08-A	HMA OVERLAY, 2 INCHES	859.00 TN
6.	7021-1.08-A	HMA SCRATCH COURSE	25.00 TN
7.	7030-1.08-E	TRAIL, PCC, 6 INCHES	212.00 SY
8.	7030-1.08-G	DETECTABLE WARNINGS	128.00 SF
9.	7040-1.08-A	PATCH, FULL DEPTH REPAIR, HMA, 4 INCHES	40.00 TN
10.	7040-1.08-G	MILLING	100.00 SY
11.	7040-1.08-H	REMOVAL OF HMA RECREATIONAL TRAIL	223.00 SY
12.		GRANULAR SHOULDERS, TYPE A	145.00 TN
13.		REMOVAL OF EXISTING BOLLARD AND FOUNDATION	1.00 EA
14.		INSTALL REMOVABLE BOLLARD	1.00 EA

NOTE:

CONTRACTOR SHALL COORDINATE WITH UNION PACIFIC RAILROAD YARD MASER (712-329-5028_ FOR TRUCK ACCESS TO BIG LAKE FROM N. 12TH STREET. SEE BELOW.



ESTIMATE REFERENCE NOTES

ITEM NO.	ITEM CODE	DESCRIPTION
1.	8030-1.08-A	TEMPORARY TRAFFIC CONTROL TRAFFIC CONTROL SHALL INCLUDE TRAIL CLOSURE BARRICADES AND SIGNAGE DURING WORK ON SECTIONS THE TRAIL. TRAIL CLOSURE SIGNS AND BARRICADES SHALL BE INSTALLED AT THE LIMITS OF THE WORK DURING ANY GIVEN DAY THAT WORK IS OCCURRING. THE TRAIL SHALL REMAIN OPEN IN AREAS THAT ARE NOT BEING WORKED ON DURING ANY GIVEN DAY. WARNING SIGNAGE SHALL BE INCLUDED FOR ANY SHORT SECTIONS OF REMOVALS OR MILLED SURFACING. ITEM SHALL INCLUDE UP TO 4 ADDITIONAL WARNING OR CLOSURE SIGNS TO BE LOCATED BEYOND THE PROJECT LIMITS AT LOCATIONS TO BE DETERMINED BY THE OWNER. ITEM SHALL INCLUDE ALL MATERIALS, TOOLS, EQUIPMENT, AND LABOR TO INSTALL, MAINTAIN, AND REMOVE TEMPORARY TRAFFIC CONTROL. MEASUREMENT AND PAYMENT SHALL BE PER THE LUMP SUM BID PRICE.
2.		TEMPORARY ORANGE SAFETY FENCE ITEM INCLUDED TO PROTECT THE AREAS WHERE THE NEW CONCRETE RAMPS ARE INSTALLED. FENCING SHALL BE REMOVED WITHIN 48-HOURS OF CONCRETE PLACEMENT. ITEM SHALL INCLUDE ALL MATERIALS, TOOLS, EQUIPMENT, AND LABOR FOR THE INSTALLATION AND REMOVAL OF STANDARD ORANGE SAFETY FENCING AND POSTS. MEASUREMENT AND PAYMENT SHALL BE PER LF OF FENCING INSTALLED.
3.	11050-1.08-A	CONCRETE WASHOUT AREA ITEM INCLUDED FOR THE INSTALLATION AND REMOVAL OF A CONCRETE WASHOUT AREA. CONTRACTOR SHALL INSTALL A WASHOUT AREA OR UTILIZE SOME FORM OF CONTAINMENT FOR WASHING OF CONCRETE TRUCKS UTILIZED FOR THE PROJECT. ITEM INCLUDES ALL MATERIAL, EQUIPMENT, TOOLS, AND LABOR FOR THE INSTALLATION AND REMOVAL OF THE WASHOUT AREA(S). MEASUREMENT AND PAYMENT SHALL BE PER THE LUMP SUM BID PRICE.
4.		SURFACE PREPARATION THE ENTIRE TRAIL SURFACE SHALL BE PREPARED PER THE REQUIREMENTS IN IDOT SECTION 2212. ALL WEEDS, VEGETATION, AND DEBRIS SHALL BE REMOVED FROM CRACKS AND JOINTS WITHIN THE TRAIL. THE EDGES OF THE TRAIL SHALL BE CLEAR OF VEGETATION OVERGROWTH, SOIL, AND OTHER DEBRIS. GROUND STERILIZER SHALL BE APPLIED TO ALL VEGETATION WITHIN THE CRACKS. ITEM SHALL INCLUDE ALL MATERIALS, TOOLS, EQUIPMENT, AND LABOR TO PREPARE THE SURFACE. MEASUREMENT AND PAYMENT SHALL BE IN SQUARE YARDS FOR THE ENTIRE TRAIL SURFACE THAT IS PREPARED AND OVERLAYED.
5.	7021-1.08-A	HMA OVERLAY, 2 INCHES MIX SHALL BE 3/8"STANDARD TRAFFIC, PG58-28S. NDOT -SLX -PG 64-34 3/8" IS AN ACCEPTABLE ALTERNATIVE FOR THE OVERLAY COURSE. ITEM SHALL INCLUDE TACK, MIX, AND BINDER. THICKNESS MAY VARY IN ORDER TO MAINTAIN SMOOTHNESS AND APPROPRIATE CROSS SLOPE. MINIMUM THICKNESS SHALL BE 1.5 INCHES. ESTIMATED QUANTITY INCLUDES THE AREAS SHOWN ON THE PLANS AT 2-INCHES THICK AND 150PCF WITH AN ADDITIONAL 5 PERCENT CONTINGENCY. MEASUREMENT AND PAYMENT SHALL BE PER THE TONS OF MATERIAL USED. CONTRACTOR SHALL PROVIDE DATED SCALE TICKETS TO THE OWNER'S REPRESENTATIVE ON THE DAY(S) THAT THE MATERIAL WAS PLACED.
6.	7021-1.08-A	HMA SCRATCH COURSE MIX SHALL BE 3/8"STANDARD TRAFFIC, PG58-28S. NDOT -SLX -PG 64-34 3/8" IS AN ACCEPTABLE ALTERNATIVE FOR THE OVERLAY COURSE. ITEM SHALL INCLUDE TACK, MIX, AND BINDER. ITEM INCLUDED FOR FILLING DIPS AND CRACKS IN THE EXISTING TRAIL PRIOR TO PLACING THE HMA OVERLAY. CRACKS THAT ARE A HALF OF AN INCH WIDE OR MORE SHALL BE FILLED AND COMPACTED WITH SCRATCH COURSE MATERIAL. MEASUREMENT AND PAYMENT SHALL BE PER THE TONS OF MATERIALS USED. CONTRACTOR SHALL PROVIDE DATED SCALE TICKETS TO THE OWNER'S REPRESENTATIVE ON THE DAY(S) THAT THE MATERIAL WAS PLACED.

ESTIMATE REFERENCE NOTES

ITEM NO.	ITEM CODE	DESCRIPTION
7. 8.	7030-1.08-E 7030-1.08-G	TRAIL, PCC, 6 INCHES DETECTABLE WARNINGS ITEMS INCLUDED FOR THE RAMP LOCATIONS SHOWN. SURFACE GRADES OF RAMPS SHALL COMPLY WITH THE DETAILS INCLUDED IN THE PLANS. PCC PAVEMENT SHALL BE PER THE CITY OF COUNCIL BLUFFS SUPPLEMENTAL SPECIFICATIONS. DETECTABLE WARNING PANELS SHALL BE 2'X 4', COMPOSITE, RED, REMOVABLE PANELS MANUFACTURED BY DETECTILE, OR APPROVED EQUAL.
9.	7040-1.08-A	PATCH, FULL DEPTH REPAIR, HMA MIX SHALL BE 3/4"STANDARD TRAFFIC, PG58-28S. NDOT -SPR -PG 64-34 3/4"MIX IS AN ACCEPTABLE ALTERNATIVE FOR THE PATCH, FULL DEPTH REPAIR. ITEM INCLUDED FOR WHERE FULL DEPTH PATCHING AS REQUIRED. CONTRACTOR SHALL CONFIRM ALL LOCATIONS WITH ENGINEER OR OWNER PRIOR TO PROCEEDING WITH WORK. ITEM SHALL INCLUDE SAW CUTTING AND REMOVAL OF AREAS TO BE PATCHED. MEASUREMENT AND PAYMENT SHALL BE PER THE TONS OF MATERIALS USED. CONTRACTOR SHALL PROVIDE DATED SCALE TICKETS TO THE OWNER'S REPRESENTATIVE ON THE DAY(S) THAT THE MATERIAL WAS PLACED.
10.	7040-1.08-G	MILLING ITEM INCLUDED FOR THE TRANSITION LOCATIONS WHERE THE TRAIL OVERLAY STARTS AND ENDS AS WELL AS OTHER AREAS WHERE MILLING IS DETERMINED TO BE BENEFICIAL TO THE SMOOTHNESS OF THE OVERLAY. MILLING IS NOT REQUIRED IN AREAS WHERE THE PAVEMENT WILL BE REMOVED AND REPLACED WITH CONCRETE AT THE RAMP LOCATIONS SHOWN IN THE PLANS.
11.	7040-1.08-H	REMOVAL OF HMA RECREATIONAL TRAIL ITEM INCLUDED FOR THE RAMP LOCATIONS SHOWN.
12.		GRANULAR SHOULDERS, TYPE A ITEM SHALL BE USED WHERE DIRECTED BY THE OWNER TO SHOULDER THE TRAIL AS SHOWN IN THE PLANS. ITEM SHALL INCLUDE ALL MATERIALS, TOOLS, EQUIPMENT, AND LABOR TO INSTALL THE GRANULAR SHOULDERS AS DETAILED IN THE PLANS. MEASUREMENT AND PAYMENT SHALL BE PER THE TONS OF MATERIALS USED. CONTRACTOR SHALL PROVIDE DATED SCALE TICKETS TO THE OWNER'S REPRESENTATIVE ON THE DAY(S) THAT THE MATERIAL WAS PLACED.
13.		REMOVAL OF EXISTING BOLLARD AND FOUNDATION ITEM SHALL INCLUDE REMOVAL OF EXISTING BOLLARDS AND CONCRETE FOUNDATION. PATCHING AREAS WHERE NECESSARY SHALL BE PAID FOR SEPARATELY. ITEM SHALL INCLUDE ALL MATERIALS, TOOLS, EQUIPMENT, AND LABOR TO REMOVE EACH BOLLARD AND FOUNDATION. MEASUREMENT AND PAYMENT SHALL BE FOR EACH LOCATION WHERE A BOLLARD AND FOUNDATION REMOVED. FULL PAYMENT WILL BE MADE FOR LOCATIONS WHERE BOLLARDS ARE MISSING.
14.		INSTALL REMOVABLE BOLLARD ITEM SHALL INCLUDE THE INSTALLATION OF NEW BOLLARDS, SLEEVES, AND FOUNDATIONS IN LOCATIONS AS DETAILED IN THE PLANS. ITEM SHALL INCLUDE ALL MATERIALS, TOOLS, EQUIPMENT, AND LABOR TO PROVIDE AND INSTALL THE BOLLARD AS DETAILED IN THE PLANS. MEASUREMENT AND PAYMENT SHALL BE MADE FOR EACH NEW BOLLARD INSTALLED. BOLLARD SHALL BE PER THE PLAN DETAIL.

SPECIFICATIONS

THE URBAN STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS, 2023, AND CITY OF COUNCIL BLUFFS SUPPLEMENTAL SPECIFICATIONS 2023, SHALL APPLY TO THIS PROJECT.

— INDICATES PROJECT LOCATION

LOCATION MAP
COUNCIL BLUFFS, IOWA
NO SCALE

INDEX

PAGE NO.	DESCRIPTION
A.01	TITLE SHEET
B.01-.02	SITE DETAILS
D.01-.03	TRAIL REPAIR PLAN SHEETS

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LICENSED PROFESSIONAL ENGINEER
JOHN E. JORGENSEN
12855
IOWA

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

JOHN E. JORGENSEN 3-2-2023

My license renewal date is December 31, 2024.

Pages or sheets covered by this seal:
A.01, B.01-.02, D.01-.03

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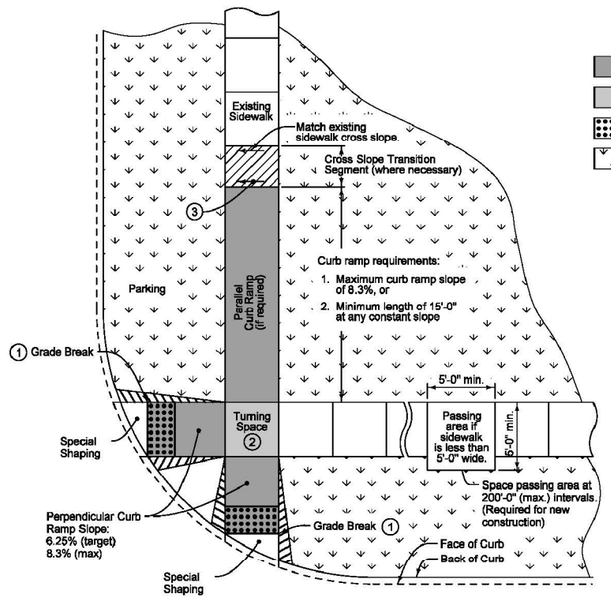
JNS drawn
BJR designed
JEJ approved
MAR '23 date
revision
date

project CITY-WIDE TRAIL UPGRADES - IOWA RIVERFRONT CITY PROJECT NO. PR 24-02
client COUNCIL BLUFFS PARK AND RECREATION
sheet TITLE SHEET

project no. 150822
sheet A.01

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Key

- Curb Ramp
- Turning Space
- Detectable Warning
- Grass

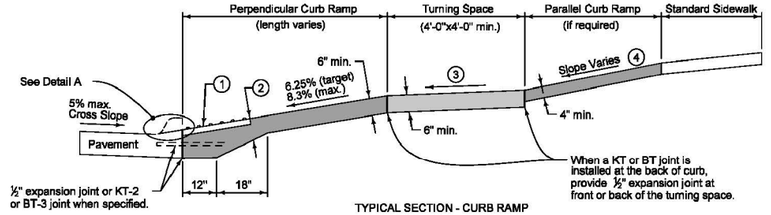
1. Match pedestrian street crossing slope, or flatter.
2. Minimum 4 feet by 4 feet. Target cross slope of 1.5% with a maximum cross slope of 2.0%.
3. Target cross slope of 1.5% with a maximum cross slope of 2.0%.

FIGURE 7030.204 | SHEET 1 OF 1

SUDAS | REVISION 3 10-20-15 | 7030.204 | SHEET 1 of 1

SUDAS Standard Specifications

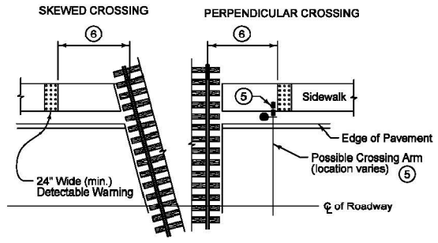
GENERAL FEATURES OF AN ACCESSIBLE SIDEWALK



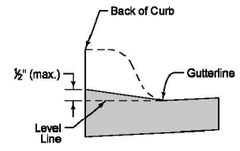
TYPICAL SECTION - CURB RAMP

Key

- Curb Ramp
- Turning Space
- Detectable warning



DETECTABLE WARNING LOCATION AT RAILROAD CROSSING



DETAIL A

1. Provide a minimum 2 foot width of detectable warning surfaces in the direction of pedestrian travel across the full width of the curb ramp or turning space, exclusive of curbs or flares.
2. Provide a minimum of 6 inches of concrete below the detectable warning panel.
3. Minimum 4 feet by 4 feet. Target cross slope of 1.5% with a maximum cross slope of 2.0%.
4. If normal sidewalk elevation cannot be achieved with the perpendicular ramp between the street and landing due to limited ramp length, provide a parallel ramp to make up the elevation difference between the landing and the standard sidewalk.

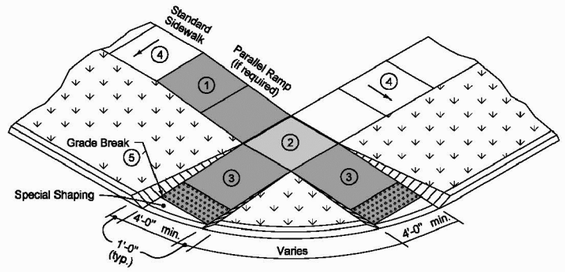
   The length of the parallel ramp is not required to exceed 15 feet, regardless of the resulting slope. Do not exceed 8.3% slope for parallel ramps shorter than 15 feet.
5. If crossing gate conflicts with location of detectable warning or if pedestrian crossing gate is provided, place detectable warning panel in advance of the crossing gate.
6. Locate front edge of detectable warning panel 12 to 15 feet from centerline of nearest rail. Orient truncated domes parallel to the direction of pedestrian travel.

FIGURE 7030.205 | SHEET 1 OF 1

SUDAS | REVISION 1 10-20-15 | 7030.205 | SHEET 1 of 1

SUDAS Standard Specifications

GENERAL SIDEWALK AND CURB RAMP DETAILS



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

   The length of the parallel ramp is not required to exceed 15 feet, regardless of the resulting slope. Do not exceed 8.3% slope for parallel ramps shorter than 15 feet.
2. Turning Space: Target slope of 1.5% with maximum slope perpendicular to the travel directions of 2.0%. Minimum 4 feet by 4 feet.
3. Perpendicular Curb Ramp: Target running slope of 6.25% with maximum running slope of 8.3%.
4. Target cross slope of 1.5% with a maximum cross slope of 2.0%.
5. Match pedestrian street crossing cross slope or flatter.

Key

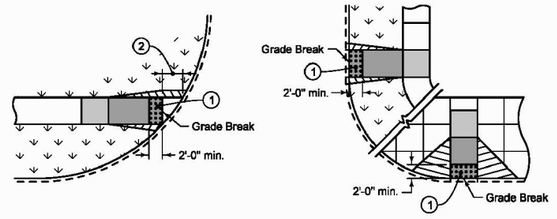
- Curb Ramp
- Turning Space
- Detectable warning
- Grass

FIGURE 7030.207 | SHEET 1 OF 1

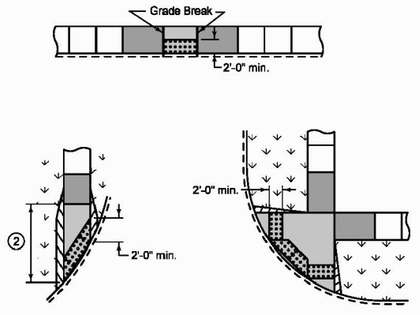
SUDAS | REVISION New 10-16-12 | 7030.207 | SHEET 1 of 1

SUDAS Standard Specifications

CURB RAMP FOR CLASS B OR C SIDEWALK



PERPENDICULAR RAMPS



PARALLEL RAMPS

Provide a minimum 2 foot width of detectable warning surfaces in the direction of pedestrian travel across the full width of the curb ramp or turning space, exclusive of curbs or flares.

1. When detectable warning is located on curb ramp surface, orient domes in the direction of pedestrian travel.
2. When the distance between the grade break and the back of curb is less than 5 feet, place detectable warning surface at the bottom of the curb ramp.

   Where one corner of the curb ramp is more than 5 feet from the back of curb, construct curb ramp as a parallel curb ramp. Move grade break back as required to place detectable warning on turning space at the back of curb.

Key

- Curb Ramp
- Turning Space
- Detectable Warning

FIGURE 7030.210 | SHEET 1 OF 1

SUDAS | REVISION New 10-16-12 | 7030.210 | SHEET 1 of 1

SUDAS Standard Specifications

DETECTABLE WARNING PLACEMENT

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JNS drawn | BJR designed | JFJ approved | MAR '23 date | revision | date

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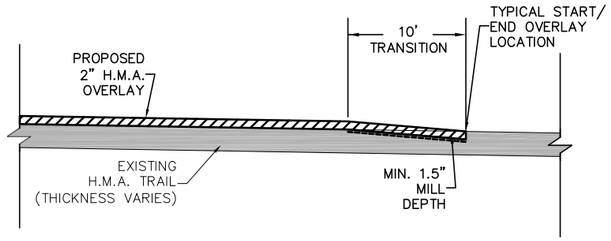
client COUNCIL BLUFFS PARK AND RECREATION

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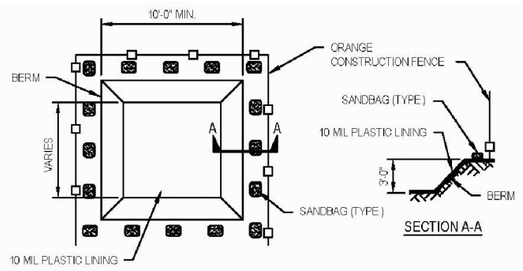
project no. 150822

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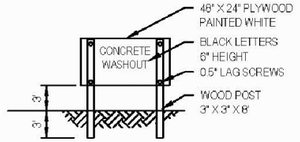


TYPICAL TRAIL TRANSITION

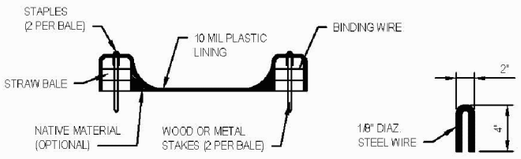


PLAN - BELOW GRADE OPTION

SECTION A-A

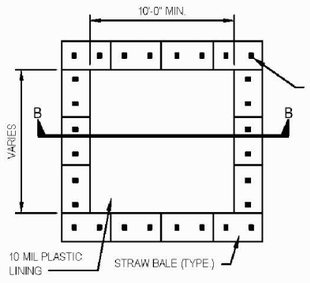


CONCRETE WASHOUT SIGN DETAIL

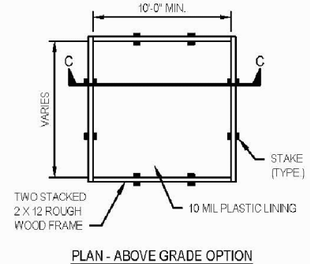


SECTION B-B

STAPLE DETAIL



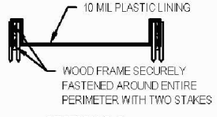
PLAN - ABOVE GRADE W/ STRAW BALES OPTION



PLAN - ABOVE GRADE OPTION

CONCRETE WASHOUT AREA INSTALLATION NOTES:

1. THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.
2. THE CONCRETE WASHOUT AREA WILL BE CONSTRUCTED ABOVE GRADE OR BELOW GRADE AT THE OPTION OF THE CONTRACTOR. THE ACTUAL LAYOUT SHALL BE DETERMINED IN THE FIELD.
3. THE CONCRETE WASHOUT AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS. THE WASHOUT AREA MUST BE CLEANED, OR A NEW WASHOUT AREA MUST BE CONSTRUCTED AND READY FOR USE ONCE THE WASHOUT IS 75% FULL.
4. THE CONCRETE WASHOUT SIGN SHALL BE PLACED WITHIN 30' OF THE WASHOUT AREA. ADDITIONAL SIGNS SHOULD BE CONSTRUCTED AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
5. THE CONCRETE WASHOUT AREA SHALL BE LOCATED A MINIMUM OF 50 FEET FROM STORM DRAIN INLETS, OPEN DISCHARGE FACILITIES, AND WATERCOURSES. EACH FACILITY SHOULD BE LOCATED AWAY FROM CONSTRUCTION TRAFFIC OR ACCESS TO PREVENT DISTURBANCE OR TRACKING. VEHICLE TRACKING CONTROL IS REQUIRED AT CONCRETE WASHOUT ENTRANCE IF ACCESS TO AREA IS OFF PAVEMENT.
6. PLASTIC LINING MATERIAL SHALL BE A MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND SHALL BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.
7. WHEN THE CONCRETE WASHOUT AREA IS NO LONGER REQUIRED FOR WORK, THE HARDENED CONCRETE AND MATERIAL USED TO CONSTRUCT WASHOUT AREA SHALL BE REMOVED AND DISPOSED OF AT AN APPROVED WASTE SITE.
8. WHEN THE CONCRETE WASHOUT AREA IS REMOVED, THE DISTURBED AREA SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE ENGINEER.



SECTION C-C

CONCRETE WASHOUT AREA

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JNS	BJR	JFJ	MAR '23
drawn	designed	approved	date

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client COUNCIL BLUFFS PARK AND RECREATION

sheet **SITE DETAILS**

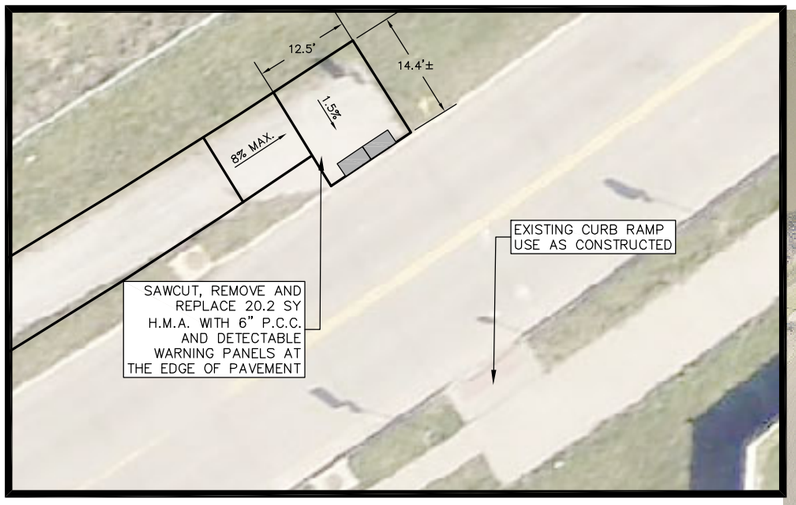
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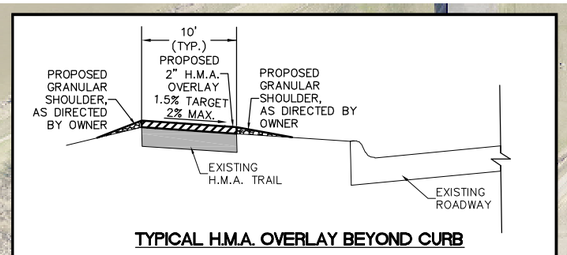
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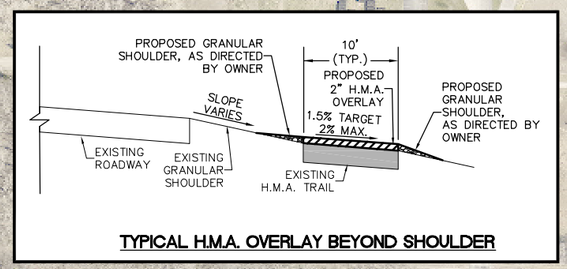


NORTH RAMP AT AVE M WAY

SCALE: 1"=10'



TYPICAL H.M.A. OVERLAY BEYOND CURB



TYPICAL H.M.A. OVERLAY BEYOND SHOULDER

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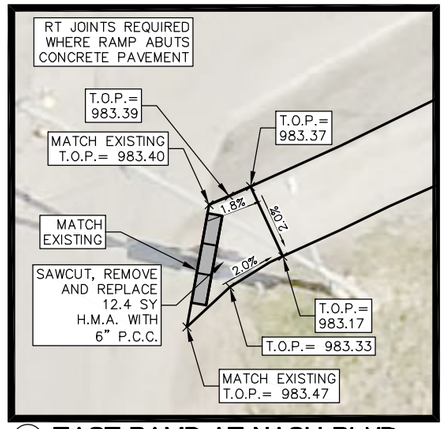
JNS drawn
BJR designed
JEJ approved
MAR '23 date
date
revision

project CITY-WIDE TRAIL UPGRADES – IOWA RIVERFRONT CITY PROJECT NO. PR 24-02
client COUNCIL BLUFFS PARK AND RECREATION
sheet **IOWA RIVERFRONT TRAIL AT NASH BLVD**

project no. 150822
sheet **D.01**

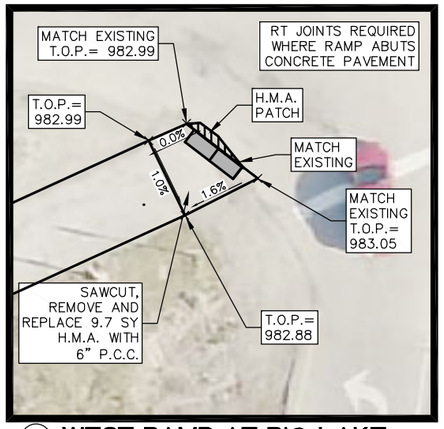
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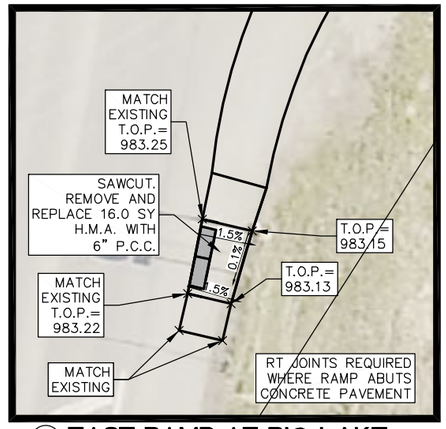
1 EAST RAMP AT NASH BLVD AND 16TH STREET

SCALE: 1"=10'



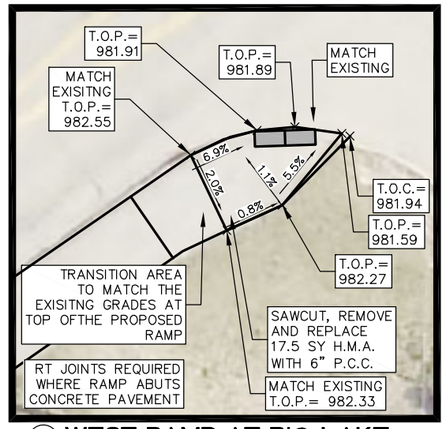
2 WEST RAMP AT BIG LAKE ROAD AND 16TH STREET

SCALE: 1"=10'



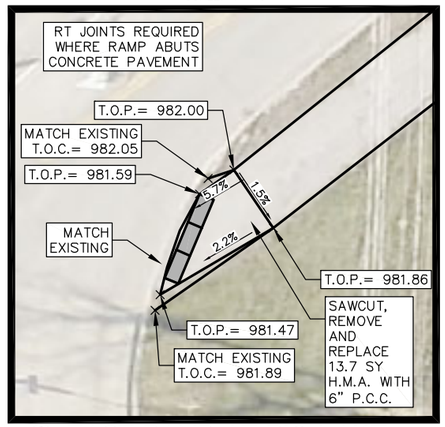
3 EAST RAMP AT BIG LAKE ROAD AND 16TH STREET

SCALE: 1"=10'



4 WEST RAMP AT BIG LAKE ROAD AND 15TH STREET

SCALE: 1"=10'



5 EAST RAMP AT BIG LAKE ROAD AND 15TH STREET

SCALE: 1"=10'

CONTRACTOR SHALL COORDINATE THE ADJUSTMENT OF THE TRAFFIC SIGNAL BOX AT 16TH STREET WITH C.B. TRAFFIC – ANDY WICKS – (712) 328–4645

CONTRACTOR SHALL COORDINATE THE ADJUSTMENT OF ALL WATER VALVE BOXES WITH C.B.W.W. – ADAM WIEGMAN – (712) 328–1006 EXT. 1039

TYPICAL H.M.A. OVERLAY BEYOND CURB

TYPICAL H.M.A. OVERLAY AT BACK OF CURB

TYPICAL H.M.A. OVERLAY BEYOND SHOULDER

LEGEND

×996.42 – EXISTING SPOT ELEVATIONS

– DETECTABLE WARNING PANELS

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hgm ASSOCIATES INC.
640 FIFTH AVENUE COUNCIL BLUFFS, IOWA
PHONE: (712) 323-0530

JNS drawn
BJR designed
JEJ approved
MAR '23 date
date revision

project: CITY–WIDE TRAIL UPGRADES – IOWA RIVERFRONT CITY PROJECT NO. PR 24–02
client: COUNCIL BLUFFS PARK AND RECREATION
sheet: IOWA RIVERFRONT TRAIL AT NASH BLVD

project no. 151020
sheet D.02

hgm:
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BIG LAKE SOUTH RAMP

SCALE: 1"=10'

TYPICAL H.M.A. OVERLAY

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640 FIFTH AVENUE COUNCIL BLUFFS, IOWA
PHONE: (712) 323-0530

JNS drawn
BJR designed
JFJ approved
MAR '23 date
revision date

project CITY-WIDE TRAIL UPGRADES - IOWA RIVERFRONT CITY PROJECT NO. PR 24-02
client COUNCIL BLUFFS PARK AND RECREATION
sheet **IOWA RIVERFRONT TRAIL AT BIG LAKE PARK**

project no. 151020
sheet **D.03**

hgm:
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